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The Influence of Applied Entrepreneurship Curriculum on Student Businesses: Lessons from Indonesia

OCCASIONAL PAPER 1

Kent Schroeder
SEDS Lecturer teams
June 2017

Sulawesi Economic Development Strategy (SEDS)
International Development Institute
Humber College

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EXECUTIVE SUMMARY

This study explores how applied entrepreneurship programming delivered by Indonesian universities influenced the start-up and management of student businesses. The study draws on the experience of the Sulawesi Economic Development Strategy (SEDS). SEDS was a five-year project (2012-2017) that focused on building entrepreneurship capacity within seven universities in the Indonesian provinces of North and South Sulawesi. The goal of the project was to achieve improved management and growth of small and medium enterprises that generates greater employment, higher levels of income and reduced poverty. A train-the-trainers approach was used by the International Development Institute (IDI) at Humber College, the lead Canadian partner, to develop the capacity of the Indonesian university partners to deliver applied entrepreneurship programming. This included both the design of applied curriculum to be delivered as university courses and the development of business support services to be delivered outside the classroom environment. Through both of these strategies, the intent was for Indonesian university students to graduate with the knowledge and skills necessary to start and manage successful small businesses. This, in turn, will contribute to greater employment, higher incomes and reduced poverty.

Existing research on entrepreneurship education argues that entrepreneurship programming that is applied in focus and draws on mixed methods can effectively provide students with the real-world skills needed to start and manage successful businesses. At the same time, this literature is largely drawn from the experience of developed economies and is often based on western notions of entrepreneurship. There is a gap in the research on how effective this applied model of entrepreneurship education is in developing economies and societies with collectivist values. This study responds to this gap. Using a mixed-methods approach, the study outlines 14 major findings emerging from the SEDS project experience and their corresponding lessons learned. A set of recommendations emerging from the lessons learned are also identified. The lessons learned and recommendations offer insight more broadly to other Indonesian universities interested in delivering applied entrepreneurship programming in the future.

Major Findings and Lessons Learned

Major Finding #1: *The applied nature of the SEDS course curriculum was overwhelmingly successful in providing students with practical entrepreneurial knowledge and skills needed to start a business.*

Lessons Learned:

- Applied curriculum and teaching methods are an effective pedagogical strategy in Indonesia. Both students and lecturers value the active nature of learning that departs from traditional methods used in Indonesian higher education.

- Diverse teaching methods are critical for promoting applied entrepreneurship learning but these teaching methods themselves must be adapted to different learning styles within the classroom and across different study programs or disciplines.

Major Finding #2: *SEDS business support services and extra-curricular activities provide an effective bridge between course learning and real world entrepreneurship.*

Lesson Learned:

- A formalized link must be made between in-class curriculum and support services/extra-curricular activities in order to realize the full potential of applied entrepreneurship programming. This will provide integrated support for both business start-up and on-going management in the student entrepreneurship experience.

Major Finding #3: *The applied nature of the SEDS courses, support services and extra-curricular activities builds self-efficacy within students that results in motivation to start businesses.*

Lessons Learned:

- Entrepreneurship programming that directly engages students in the learning process can effectively address the documented challenge of a lack of entrepreneurial self-efficacy among Indonesian university students.
- Entrepreneurship programming needs to pay special attention to building self-efficacy and motivation among students who do not have personality traits associated with entrepreneurship. This is best done through using mixed teaching methods that connect to different learning styles and personality traits.

Major Finding #4: *SEDS lecturers take on a broad range of roles beyond just teaching to help student entrepreneurs become successful.*

Lessons Learned:

- The capacity development approach used by the SEDS project was effective in building skills and motivation within lecturers to deliver applied entrepreneurship programming. The format of capacity building activities, however, needs to be designed more closely around lecturers' schedules and workloads.
- Extending the learning of SEDS lecturers to other faculty through socialization activities is critical to institutionalize capacity and broaden the use of applied techniques within each university.
- Long-term sustainability of the many roles lecturers play beyond their regular workload requires some form of incentive or compensation that fits within the specific regulations and status of each university partner

Major Finding #5: *Student entrepreneurship contributes to social good.*

Lesson Learned:

- Applied entrepreneurship programming in Indonesia should incorporate the social aspects of entrepreneurship as a key component of curriculum. This should be an integrated theme that cuts across all curricular content rather than just a focus on corporate social responsibility as a stand-alone topic related to entrepreneurship.

Major Finding #6: *The applied focus of SEDS is a victim of its own success. Unintended consequences that emerge from the applied approach have led students to reject the value of theory in the learning process.*

Lesson Learned:

- Applied entrepreneurship curriculum must be designed so the role of theory in informing practice is at the foundation of students' applied learning. This can be done through both curriculum content design and the choice of teaching methods.

Major Finding #7: *Female student entrepreneurs generally achieve less success than male student entrepreneurs in terms of revenue and amount of employees.*

Lesson Learned:

- Further research is required to better understand why female Indonesian entrepreneurs who develop motivation and skills through entrepreneurship education are not as successful in business as their male counterparts.

Major Finding #8: *Effective marketing, including marketing using social media, is a challenge for new businesses in the transition from education to practice.*

Lesson Learned:

- Marketing curriculum in the Indonesian context should focus explicitly on social media and online marketing strategies including guerrilla marketing techniques and online platforms like Tokopedia.

Major Finding #9: *Time management is overwhelmingly the biggest challenge Indonesian student entrepreneurs face.*

Lesson Learned:

- Education or training in time management skills needs to be a core part of applied entrepreneurship programming. This can be done by adding it into the curriculum, incorporating it into existing curriculum content, or providing it through extra-curricular support such as coaching or training.

Major Finding #10: *Lack of funding is a barrier to business growth but students do not seek formal loans.*

Lesson Learned:

- Supporting the funding needs of student entrepreneurs needs to move beyond providing loan information in the classroom to engaging the larger university in networking with banks, government and entrepreneurship organizations to identify or develop funding opportunities that are accessible to students with little collateral.

Major Finding #11: *Group dynamics among student business partners often inhibit successful business management*

Lesson Learned:

- Promoting effective group dynamics among student business partners would be enhanced by the use of an Agreement Contract provided by the university and signed by partners that outlines roles, capital contributions, profit sharing and other issues.

Major Finding #12: *Student businesses tend to lack innovation.*

Lesson Learned:

- Applied entrepreneurship curriculum should teach students to assess when innovation is useful while coaching should support student innovation where appropriate.

Major Finding #13: *Challenges related to marketing, time management, funding, partner dynamics and innovation all limit business growth which, in some cases, threatens long-term business sustainability.*

Lessons Learned:

- Addressing the multiple student challenges of time management, marketing, funding, partner dynamics and innovation should be done as a holistic strategy that recognizes they work together to limit business growth and sustainability.
- Applied entrepreneurship programming should be designed to recognize the twin burdens of student life and entrepreneurship life and how these might be best balanced to promote sustainable businesses upon graduation.

Major Finding #14: *The overall SEDS experience demonstrates that an applied and participatory education model is effective in the Indonesian cultural context.*

Lessons Learned:

- The applied education model is most successful when it aligns with the larger institution's vision and mission and where regular communication occurs with executive level university administrators.
- The applied model of SEDS programming is adaptable to other university programs unrelated to entrepreneurship and should be expanded to these programs where appropriate.

Recommendations

Recommendation #1: Applied entrepreneurship programs in Indonesia should be designed around the concept of entrepreneurship as a social good as a key curriculum foundation. This will result in applied entrepreneurship education that is better connected to the collectivist values of Indonesian culture.

Recommendation #2: Applied entrepreneurship programming should be designed to fit directly within its larger institution's mission and effectively within its administrative regulations. This includes designing applied programming that provides appropriate incentives or compensation for lecturers given their expanded roles.

Recommendation #3: The SEDS partners, or other Indonesian universities, should link entrepreneurship programming to a research agenda on applied entrepreneurship education. Research results can be used to improve future education programming and contribute to entrepreneurship theory-building from a perspective of the Global South. Two areas of potential research collaboration emerge from the lessons learned, including gender differences in entrepreneurship outcomes and the social role of entrepreneurship in Indonesia. The latter would provide an original contribution to entrepreneurship theory and support culturally appropriate programming.

Recommendation #4: Indonesian universities interested in delivering applied entrepreneurship training should work together to network with government, banks and other stakeholders to secure or develop funding opportunities for student entrepreneurs. This should be combined with an education strategy for students to increase their understanding of the value of such funding as well as skills in managing loans.

Recommendation #5: Indonesian universities within individual provinces or regions should consider developing and delivering joint extra-curricular activities for all their students. This will expose them to more customers and spur greater innovation through broader interaction with other student entrepreneurs.

Recommendation #6: Institutions that deliver entrepreneurship training and support should institutionalize the link between entrepreneurship curriculum and support services/extra-curricular activities. Strategies to do this include incorporating extra-curricular activities into course learning

outcomes, formalizing a coaching system that assigns coaches to students during and after the entrepreneurship course, and creating a database of student entrepreneurs to track them and supply on-going support services prior to and after graduation.

Recommendation #7: Universities with entrepreneurship programming that includes students starting their own businesses should assess the sequencing of when students start their businesses as part of the institution's program. Both the benefits and challenges of SEDS programming were often related to students starting their businesses while still in university rather than as graduates. Assessing the benefits and challenges of this approach, and making revisions where needed, will strengthen future programming.

Recommendation #8: Applied pedagogy and programming should be expanded to other higher education study programs/disciplines beyond entrepreneurship, ensuring that these programs incorporate a balance between theory and practice that is relevant to the larger role of universities in Indonesia and move beyond the theory dominant focus of current Indonesian programming

1. INTRODUCTION

The promotion of entrepreneurship offers an avenue to foster economic growth while increasing income opportunities for marginalized communities, including youth. Tertiary education institutions can play a key role. By providing youth with the theoretical knowledge, applied skills and support services needed to successfully start and grow small businesses, tertiary institutions can act as an entrepreneurial foundation. This requires tertiary institutions to develop entrepreneurship programming that provides the right mix of theory and practice, and to do so through an appropriate lens that conceptualizes entrepreneurship in a manner that fits its cultural context. Doing so may require tertiary education institutions themselves to build their own capacity first before designing and delivering effective entrepreneurship programming.

The Sulawesi Economic Development Strategy (SEDS) was a five-year project focused on building entrepreneurship capacity in seven universities in the Indonesian provinces of North and South Sulawesi. The project sought to achieve improved management and growth of small and medium enterprises that generates greater employment, higher levels of income and decreases poverty. Ther International Development Institute (IDI) at Humber College delivered a train-the-trainers strategy to these seven universities to develop their capacity to deliver applied entrepreneurship programming. This included both the design of applied curriculum to be delivered as university courses and the development of business support services like coaching to be delivered outside the classroom environment. Through both of these strategies, the intent was for university students to graduate with the knowledge and skills necessary to start and manage successful small businesses. This, in turn, will contribute to economic growth, employment and higher incomes. The SEDS university partners involved in the project include Universitas Negeri Manado (UNIMA), Universitas Sam Ratulangi (UNSRAT), Universitas Klabat (UNKLAB) and Universitas De La Salle (UNIKA) in North Sulawesi and Universitas Hasanuddin (UNHAS), Universitas Negeri Makassar (UNM) and Universitas Muhammadiyah Makassar (UNISMUH) in South Sulawesi. Humber College of Toronto was the Canadian partner. The project ran from 2012-2017.

This study examines the how the applied entrepreneurship curriculum and support services delivered by the SEDS partners impacted the start-up and management of student businesses. It argues that much of the existing research and practice of entrepreneurship is rooted in western values and assumptions, and asks whether the nature of the SEDS approach was successful in this context. Based on this experience, the study provides as set of lessons learned and accompanying recommendations intended to provide insights for future programming undertaken by other higher education stakeholders in Indonesia interesting in fostering student and graduate entrepreneurship.

The study is divided into four sections. The first section provides a summary of the scholarly research on entrepreneurship as it relates to the specific assumptions that underlie the SEDS

strategy. It identifies a research gap that the lessons learned from SEDS might help fill, both in theory and practice. Section two describes the research methods used in the study. Based on these methods, section three explores the study's findings. It identifies a set of major research findings related to how SEDS applied entrepreneurship programming influenced the start-up and management of student businesses. The section includes a set of corresponding lessons learned that emerge from the findings. Section four concludes the study with a number of recommendations for future practice by Indonesian universities interested in applied entrepreneurship education.

2. HIGHER EDUCATION, ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

The SEDS strategy used higher education institutions as a means to generate successful young entrepreneurs whose businesses will raise incomes, increase employment and reduce poverty. Several assumptions underpin the logic of this strategy. At the broadest level, the project assumes there is a link between entrepreneurship and economic development. It further assumes that higher education institutions can play an effective role in promoting economic development and can do so through the provision of applied entrepreneurship programming in particular. Central to this assumption is the importance of an applied educational approach. Academic programming at Indonesian universities is largely theory driven and relies on lecturing as a teaching method. The result is graduates without practical skills in demand by the marketplace. The SEDS strategy therefore assumes that the use of an applied approach that blends theory and practice and uses a range of participatory teaching methods will provide students with hands-on entrepreneurship skills that complement their disciplinary knowledge and enables them to start successful businesses. As such, the project used a train-the-trainer approach delivered by the Canadian college partner to build the skills of lecturers within SEDS partners to design and deliver applied entrepreneurship programming. Applied entrepreneurship courses were then designed by each Indonesian partner in multiple study programs such as economics, animal sciences, chemistry and engineering. Each SEDS partner also developed business support skills like coaching to be provided outside of the classroom environment. A Business Support Centre was set up at each partner university as a physical location to provide these services. Overall, this strategy enabled each SEDS university partner to develop and deliver a complete package of applied entrepreneurship programming to Indonesian students.

What does the research literature say about the SEDS strategy and its underlying assumptions? Can we assume a link between entrepreneurship at the individual level and economic development at the regional or national level? If so, can we further assume that higher education institutions providing applied entrepreneurship programming will successfully contribute to economic development at the regional or national level? If so, can we further assume that higher education institutions providing applied entrepreneurship programming will successfully contribute to economic development? Moreover, will this strategy be successful in the Indonesian cultural context?

The first assumption of SEDS relates to the link between entrepreneurship and economic growth. Empirical evidence from the literature suggests there is indeed a link as greater entrepreneurial activity leads to economic growth both regionally and nationally (Acs and Armington 2004; Audretsch and Keilbach 2008; Berkowitz and DeJon 2005; Foelster 2000; Robbins et al. 2000; World Bank 2016). As an engine for economic growth, entrepreneurs and small and medium enterprises (SMEs) enhance competition, are more productive than larger enterprises, boost employment and play a key role in catalyzing innovation (Tambunan 2007: 98). Most of the evidence, however, is restricted to developed economies (Bruton, Ahlstrom and Obloj 2008). This is despite the fact that informal entrepreneurship represents, on average, half of all economic activity in developing economies worldwide (La Porta and Shleifer 2008). Comparative research that does exist illustrates that the positive relationship between entrepreneurship and economic growth is weaker in developing economies than in developed economies. This is likely due to 'marginal' entrepreneurs in the former who are engaged in business out of necessity and are less productive (van Stel et al. 2005). The under-researched nature of entrepreneurship and economic growth in developing economies a therefore a critical gap. Not only is there limited research on developing economies, but the research that does exist often maintains a western bias, largely ignoring the role of context and culture (Bruton, Ahlstrom and Obloj 2008). Entrepreneurship can therefore be understood as linked to economic growth, but how culture affects this link in developing country contexts remains a gap in our knowledge.

The second assumption underlying SEDS is that higher education institutions can play a role in promoting economic development. Not a lot of scholarly attention has been directed to higher education institutions as development actors in the Global South. Research is more likely to focus on primary education and its links to economic development (Bloom et al. 2014: 24; Kimenyi 2011). The literature that does exist is often theoretical with a distinct lack of empirical studies (Bloom et al. 2014; Tilak 2005). Of those studies that do exist, a number of earlier works argue there is not a clear link between higher education and economic growth (Armer and Liu 1993; Psacharopoulos and Patrinos 2004; Wolf 2002). Others counter that these earlier studies are based on rate of return analysis that focuses on individual income of graduates and resulting tax revenue while ignoring broader benefits like employment (Bloom et al. 2014). Studies that take a broader approach suggest higher education institutions from both the Global South and North can indeed play a unique and effective role in both development and humanitarian assistance initiatives (Bloom et al. 2014; Gyimah-Brempong et al. 2006; Hatton 1995; Jordaan and Blignaut 2005; Lin 2004; Mathews and Hu 2007; Schroeder and Hatton

2006). This effectiveness requires academic programming that is relevant and prioritizes links to the social, economic and ecological concerns of society (Pillay 2011). Moreover, making these links requires educational programming that is practical and applied in nature so it is able to respond to societal issues (Massaquoi et al. 2014).

Entrepreneurship is clearly one such type of academic program that can make links to socio-economic and ecological concerns and build applied skills to address them. Entrepreneurship education can be divided into two types: education about entrepreneurship and education for entrepreneurship (Lourenço, Taylor and Taylor 2013: 507). The former is largely theory driven while the latter equips students with the ability to become entrepreneurs. The latter requires an applied pedagogical approach that builds entrepreneurship skills where a process of 'doing' is central to the learning experience (Draycott and Rae 2011; Gibb 2010; Gibb et al. 2009; Lourenço and Jayawarna, 2011; Lourenço, Taylor and Taylor 2013). An applied pedagogy does not, however, mean ignoring traditional teaching methods. Effective entrepreneurship education should make use of a mixed pedagogical approach that draws on both traditional and applied methods (Liñán and Fayolle 2015: 920; Lourenço and Jones 2006; Lourenço, Taylor and Taylor 2013).

A mixed pedagogical approach is important as there is evidence that the ability of education to build entrepreneurial motivation in addition to the acquisition of skills requires mixed learning experiences combining theoretical understanding and applied skills (Nabi et al. 2016: 12). The fostering of self-efficacy, or the confidence to be successful, is particularly important to build entrepreneurial motivation, especially among students (Segal et al. 2005; Setiawan 2014; Chen et al. 1998). Among Indonesians in particular, self-efficacy and education are the best predictors of increased entrepreneurship intentions (Indarti, Rostiani and Nastiti 2010). Using a mixed pedagogical approach that builds motivation and real world skills is therefore a critical part of effective entrepreneurship education. Just as importantly, applied content and teaching methods need to reflect their cultural and social environments (Jones and Iredale 2014). Nonetheless, many entrepreneurship programs are primarily located in Business Schools and take a one-size-fits all approach rooted in the western experience (Lourenço, Taylor and Taylor 2013: 506). This not only creates a problem across academic disciplines but across different cultures as well. The insufficient knowledge of the influence of culture and context therefore emerges again, this time in relation to our understanding of the effectiveness of applied entrepreneurship education in different cultural contexts.

The gap in the literature related to the role of culture in, first, the link between entrepreneurship and economic growth and, second, the appropriate nature of applied entrepreneurship education is particularly critical given the third assumption of SEDS: applied entrepreneurship programming can promote economic development in Indonesia in particular. Indonesia is a country that represents significant entrepreneurial potential. Just over 60% of Indonesian adults are confident they have the skills and knowledge to start a business (Nawangpalupi et al. 2016: 31). A full 90% of Indonesian businesses outside of the agricultural sector are microenterprises and they provide half of the country's employment (Vial 2011; Tambunan 2007). The success of Indonesian entrepreneurs in creating employment is not matched, however, by their contributions to national economic growth (Tambunan 2007). This is a reflection of the nature of micro and small enterprises in the country. They tend to lack innovation, are risk averse, have low productivity and experience little growth (Widyarim et al. 2016; Tambunan 2007: 99; Vial 2011). Poor marketing and a lack of access to capital act as further growth constraints (Tambunan 2007). A fairly significant bureaucratic barrier also exists. According to the World Bank's Ease of Doing Business Index, which measures regulations that enhance or constrain business, Indonesia ranks 91st out of 190 countries, far behind ASEAN neighbours like Singapore, Malaysia and Thailand (World Bank 2017). The result of the bureaucratic context is that many micro and small businesses remain in the informal sector. This is a problem as successful business growth in the Global South is often linked to businesses entering the formal sector (Vial 2011: 235). All of these barriers significantly impede the potential of Indonesian entrepreneurship. But some claim there is a deeper, more fundamental issue. Cole (2007) argues that entrepreneurship is largely defined in ethnocentric terms rooted in western values of individualism and competition. The collectivist nature of Indonesian culture does not fit with this conceptualization of entrepreneurship. To western eyes, Indonesian culture itself becomes a perceived barrier to entrepreneurship when defined in terms of the competitive pursuit of individual wealth. Cultural context therefore emerges a third time as a key issue that represents a gap in our knowledge, this time in terms of how entrepreneurship itself should be understood and evaluated in different cultural contexts.

The review of the literature offers two key insights as a foundation for examining the results of the SEDS project. First, the SEDS project should be on solid ground in its assumptions that higher education institutions can play a meaningful role in promoting entrepreneurship through applied programming and that, in the longer term, this will contribute to economic development more broadly. Second, while the analytical ground is solid in a general sense, there are gaps in the research about whether these assumptions will hold in different cultural contexts, particularly given the western bias that tends to characterize the research. The remainder of this study examines the SEDS experience in light of these two insights from the literature. It uses them as a foundation to explore a set of key findings and lessons learned for applied entrepreneurship education in Indonesia. The next section turns to a description of the methods used in the study.

3. METHODS

The research question

In order to identify the key lessons learned in the SEDS project and analyze their implications for future entrepreneurship programming, this study asked the following research question:

> *How has applied entrepreneurship curriculum delivered by the SEDS project influenced the start-up and management of student businesses in North and South Sulawesi?*

Based on the larger research question, three key themes structured the research:

1) The role of SEDS applied entrepreneurship curriculum in motivating students to start small businesses;

2) The effectiveness of SEDS curriculum in providing students with the applied knowledge and skills needed to both start and manage small businesses;

3) The role of external factors that influenced the start-up and management of student businesses either in concert with or independent of SEDS.

Research methods

A mixed-methods approach involving primarily qualitative and participatory methods was used in order to answer the research question. Such a mixed qualitative approach enables an in-depth exploration of the experiences and perceptions of students and lecturers who participated in SEDS programming. It provides rich and detailed insights into how SEDS influenced the start-up and management of student businesses. The study also draws upon quantitative data collected as part of the larger SEDS project evaluation to complement the insights that emerge from the qualitative data where appropriate.[1]

Data collection and analysis followed four stages. First, semi-structured interviews were undertaken in early 2017 with students or graduates who have taken a SEDS entrepreneurship course and subsequently started a small business. Eight respondents from each SEDS institution were interviewed for a total of 56 interviews. Four female and four male respondents were randomly selected from each institution to participate. A general Interview Guide was used to ensure each interview provided an in-depth exploration of the influence of SEDS courses on respondents' motivations for starting a business as well as the skills they use in business start-up and management. The interviews were open-ended, enabling them to proceed naturally based on each respondent's experience, but consistently structured in order to yield comparative data. No personal information beyond gender, institution and province of residence were collected. Respondents remain anonymous in this document.

The second stage of the research involved entering the data collected through the interviews into NVivo software where it was coded and analyzed. The coding identified individual themes that were further aggregated into a draft set of major findings. Stage three involved holding a one day workshop at each SEDS partner institution. Through a variety of participatory methods, SEDS lecturers analyzed the major findings in the context of the research literature and developed a set of institution-specific lessons learned. Overall, 74 SEDS lecturers and coaches participated in the process. The fourth and final stage of the research involved entering the draft lessons learned from each institution into NVivo and coding them to identify common lessons that emerge for the SEDS project as a whole. An analysis of the quantitative data collected as part of the SEDS evaluation was undertaken at this point to identify where the quantitative data informs or expands the qualitative findings. The next section turns to a discussion of the major findings and the lessons learned that emerged from them.

4. FINDINGS AND LESSONS LEARNED

The SEDS project began tracking the results of its applied entrepreneurship programming after the partners had designed their curriculum and business support services and delivered them for approximately two years. This allowed time for students to apply their learning to the start-up and management of businesses. Overall, as of November 2016, the quantitative data show that 18% of students had started a business based on a representative sample of students who had taken a SEDS course. These businesses are generating an average monthly revenue of just under 3 million Indonesian rupiah (IDR) or the equivalent of approximately CAN$300. While these businesses are relatively new, they are also creating employment. Forty-seven percent of the businesses have created at least one job.

These numbers indicate that considerable success is emerging after only two years of delivering applied entrepreneurship programming. What are the factors that have driven this success and what challenges remain, particularly in light of the cultural gaps that emerge in the research literature? The qualitative data collected from students and SEDS lecturers enable a deeper exploration of the factors behind these numbers and the lessons learned from them. Fourteen major findings, each with accompanying lessons learned collaboratively developed by SEDS lecturers, can be drawn from the SEDS experience.

[1] The quantitative data collected for the SEDS evaluation draws upon two rounds of data collection. This report uses data collected in the first round as the second round occurred after the report's completion.

Major Finding #1: *The applied nature of the SEDS course curriculum was overwhelmingly successful in providing students with practical entrepreneurial knowledge and skills needed to start a business.*

One of the main objectives of SEDS was to equip university students and graduates with a set of applied skills and knowledge that enable them to start and manage businesses. The experience of the 56 respondents indicates that the project was very successful in fulfilling this objective. Moreover, it was successful in building entrepreneurship skills among a group of respondents from diverse study programs ranging from business to the social sciences to the natural sciences. The ability of SEDS to equip students with applied entrepreneurship skills can be seen in two ways: respondents' reported skills used in setting-up and running their businesses and respondents' perceptions of applied learning.

Reported applied skills and knowledge

Respondents discussed at length how they applied to their business specific knowledge and skills learned through a SEDS course. Two things were notable. First, marketing and market segmentation are overwhelmingly the most important skills respondents applied to both the start-up and management of their businesses. "Marketing skill was most important," said one respondent, "as we learned how to be innovative in the market." Such sentiments were common. Given that problems with marketing are identified in the literature as a key barrier for Indonesian entrepreneurs (Tambunan 2007), this should bode well for successful student entrepreneurship. Beyond the dominance of marketing and market segmentation, the skills identified by respondents as applied in practice were wide ranging. The Business Model Canvas (BMC) was mentioned by many respondents as a key learning applied in practice. These respondents reported that the structured approach of the BMC re-shaped how they thought

> *"I loved the practical skills in the entrepreneurship course."*
>
> *UNISMUH respondent*

about business in a more systematic way and, as a result, revised their perception of their own role as an entrepreneur. According to one respondent: "The Business Model Canvas was when I realized that the overall breakdown is key. I now think of myself as a business person rather than a sales person." Financial management was another skill respondents often identified as important. For some, the skill was the foundation for their success as young entrepreneurs as it allowed them to impose needed financial discipline. "As a youngster I want to buy everything," said one respondent, "but this helped me manage the money and put it back into the business." Other applied skills identified less often were distributed consistently and broadly and included things like human resource management, consumer behaviour, business planning and customer relations.

A second notable issue emerged from respondents' discussions of the skills and knowledge they applied in practice. Their applied course learning was most effective in helping them with starting-up their businesses. It was less influential in providing them with skills for the on-going management of the businesses. This is not to say the skills were not applicable to management but their influence was more pronounced on start-up. Respondents learned meaningful skills in the SEDS courses that were frequently and successfully applied in starting their businesses.

Respondents' perceptions of applied learning

In addition to the reported knowledge and skills respondents applied to their businesses, the success of the SEDS courses can be seen in how respondents felt about the applied curriculum they experienced. Respondents often spoke of how the SEDS courses differed from other university courses in both content and delivery methods. Without exception they overwhelmingly preferred the applied focus of the SEDS courses. The degree of their preference for applied curriculum cannot be overstated. It created a sense of enthusiasm for learning given its real-world implications. One student referred to the applied approach as exciting because "it is like making a list of my dreams." Many recommended the applied approach be used in all courses across their university. They identified the use of class visits by entrepreneurs, simulations and shadowing of entrepreneurs as key learning experiences. Most often they pointed to those SEDS courses that involve the actual development of a product or business as the most effective learning experience. Developing a product or business in class was a source of excitement for students as it linked their learning to the real world and propelled them to action.

> *"We went from knowing nothing to producing something."*
>
> *UNIMA respondent*

Not every SEDS partner required the development of a product or business within their curriculum.

The enthusiasm of student respondents for the applied nature of SEDS curriculum was mirrored in reflections by lecturers involved with SEDS. Lecturers at every SEDS institution identified the opportunity to learn how to develop and deliver applied entrepreneurship curriculum as the key benefit of the SEDS project. Many of them reported adapting this learning to apply it in other study program or in courses unrelated to entrepreneurship. In some cases SEDS lecturers used their learning to become entrepreneurs themselves. Others aspire to open businesses in the future. Overall, the applied nature of SEDS curriculum provided student respondents with real world skills and re-shaped the preferences of both students and lecturers for an applied and student-centred learning approach.

"SEDS helps me arrange my class to be more creative than before. I went from teacher-centred to learner-centred."

UNKLAB Lecturer

Lessons Learned:

- Applied curriculum and teaching methods are an effective pedagogical strategy in Indonesia. Both students and lecturers value the active nature of learning that departs from traditional methods used in Indonesian higher education.
- Diverse teaching methods are critical for promoting applied entrepreneurship learning but these teaching methods themselves must be adapted to different learning styles within the classroom and across different study programs or disciplines.

Major Finding #2: *SEDS business support services and extra-curricular activities provide an effective bridge between course learning and real-world entrepreneurship.*

Each SEDS partner designed and delivered business support services such as coaching to assist students in the start-up and management of their businesses. Extra-curricular activities such as marketplace or expo events also enabled students to market and sell their products in a real-world business setting. These services and activities acted as a critical link for respondents to move from learning about entrepreneurship to starting and managing businesses. Respondents were particularly enthusiastic about the marketplace and expo events. By putting their skills into practice, these events enabled respondents to gain confidence in their products and in dealing with customers. In some cases, these activities enabled respondents to gain long-term customers.

While respondents were most enthusiastic about the marketplace and expo activities, coaching services were the activity that was most influential. Coaches assisted respondents with specific technical and day-to-day business issues not covered in the courses. Indeed, coaching was most influential in business management rather than business start-up. According

"The Expo was inspirational and exciting."

UNM respondent

to one respondent: "The coaching was different from the class as it is more related to the day-to-day work of the business." Another claimed this made the coaching more useful. "The coaching is more useful than the classroom as time is limited in the class. Coaching is more detailed." The SEDS courses and support services/extra-curricular activities therefore offer complementary support: the courses are most effective in supporting students to start-up their businesses while the support services and extra-curricular activities are most effective in supporting the day-to-day issues of on-going business management. The two work together to provide a full package of support across both start-up and management.

Lessons Learned:

- A formalized link must be made between in-class curriculum and support services/ extra-curricular activities in order to realize the full potential of applied entrepreneurship programming. This will provide integrated support for both business start-up and on-going management in the student entrepreneurship experience.

Major Finding #3: *The applied nature of the SEDS courses, support services and extra-curricular activities builds self-efficacy within students that results in motivation to start businesses.*

One of the key factors that predicts the motivation to become an entrepreneur among Indonesians is self-efficacy, or the confidence one has the necessary entrepreneurial knowledge and skills to be successful (Indarti, Rostiani and Nastiti 2010). Having the appropriate

entrepreneurial skills needs to be partnered with self-efficacy to successfully motivate a person to actually start a small business. This is particularly important for Indonesian university students. Research has found that while Indonesian adults generally have high entrepreneurial self-efficacy, university students are much less likely to have self-efficacy when compared to Indonesians with senior secondary or junior secondary education (Nawangpalupi et al. 2016: 31). One of the clear successes of SEDS was its ability to fill this gap by building self-efficacy and motivation among university students. The applied nature of the curriculum and extra-curricular activities was the driving force behind creating this self-efficacy. Many respondents again pointed to the requirement within some SEDS courses to actually develop a product or business as a major motivational force. Learning by doing allowed students to build confidence in their ability to be successful entrepreneurs. In fact, many respondents claimed the self-efficacy and motivation fostered by SEDS programming was more important than the skills they learned. It ultimately was what drove many respondents to start their businesses.

The SEDS courses were not the only source of motivation. Multiple factors combine with applied course learning to motivate students to start a business. Interestingly, making money was infrequently raised as a motivating factor. Respondents more often pointed to creating employment opportunities and bettering the situation of their families and communities as motivations. Respondents also frequently described their own personality as a motivational force for starting their business. They outlined how their personality traits like assertiveness, independence and comfort with risks was further stimulated by the applied entrepreneurship course content. Starting a business, in their opinion, was a natural thing to do once they developed the needed skills. What is notable is that the respondents who stated their own personality was a motivational force were very likely to further state that the SEDS programming was also a source of motivation. This suggests the ability of the courses to foster self-efficacy and motivation to start a business is often linked to students whose personalities are already pre-disposed to it. Research in other contexts illustrates a similar situation. Personality traits like stress tolerance, risk taking, a proactive nature and the need for achievement are characteristic of those who choose to become entrepreneurs (Brandstätter 2011).

"The content was great but the key was the real life examples and activities provided by the lecturer. These provide motivation."

UNIKA respondent

"Developing a product was required as part of the course. As a chemistry student I found this very exciting as it opened my mindset beyond science."

UNM respondent

"My original purpose in coming to university was to graduate and get a regular job. The entrepreneurship course motivated me to expand my horizons. There's a lot more passion and fun in business."

UNSRAT respondent

Lessons Learned:

- Entrepreneurship programming that directly engages students in the learning process can effectively address the documented challenge of a lack of entrepreneurial self-efficacy among Indonesian university students.
- Entrepreneurship programming needs to pay special attention to building self-efficacy and motivation among students who do not have personality traits associated with entrepreneurship. This is best done through using mixed teaching methods that connect to different learning styles and personality traits.

Major Finding #4: *SEDS lecturers take on a broad range of roles beyond just teaching to help student entrepreneurs become successful.*

SEDS lecturers play a wide range of roles in promoting both applied learning and the translation of that learning into real student businesses. Much of SEDS success is directly due to the commitment of these lecturers. In addition to in-class lecturing, they are providing one-on-one technical advice, connecting students to technical experts, helping students network with potential suppliers, connecting them with customers, providing encouragement and motivation, securing physical space for students' businesses, and occasionally even acting as

business partners or providing loans to students. The broad range of roles many SEDS lecturers take on was noticed by student respondents. “He is a real motivator,” said one. “He is different than other lecturers, more like a friend than a teacher as he is very accessible and knows the issues.”

The significant impact lecturers have on students is nonetheless based on an underlying challenge. The extra roles taken on by SEDS lecturers are in addition to their regular full-time workload. They receive no compensation, financial or otherwise, for the work. SEDS lecturers were clear that they are willing to take on these roles given their enthusiasm for SEDS and the learning they received through the project. “SEDS continually motivates me to help my students become entrepreneurs,” said one lecturer. Yet SEDS lecturers at multiple partner institutions questioned whether this is sustainable in the long terms. As other lecturers get involved in the future in teaching SEDS courses or providing support services, will they be as willing to do so without compensation? The issue of lack of compensation is a significant one for the sustainability of SEDS programming once the project ends. Addressing it is important to maintain the critical role of lecturers in student success

Lessons Learned:

- The capacity development approach used by the SEDS project was effective in building skills and motivation within lecturers to deliver applied entrepreneurship programming. The format of capacity building activities, however, needs to be designed more closely around lecturers’ schedules and workloads.
- Extending the learning of SEDS lecturers to other faculty through socialization activities is critical to institutionalize capacity and broaden the use of applied techniques within each university. (over)
- Long-term sustainability of the many roles lecturers play beyond their regular workload requires some form of incentive or compensation that fits within the specific regulations and status of each university partner.

Major Finding #5: *Student entrepreneurship contributes to social good.*

The respondents in this study have all started businesses, many of which are financially successful. Of the 56 respondents, 15 reported monthly revenue above IDR 3 million. Another 15 reported monthly revenue between IDR 1 and 3 million. Eleven respondents reported revenue of less than IDR 1 million. While these numbers cannot be generalized more broadly, the quantitative data collected as part of the SEDS evaluation paint an even more promising picture. The quantitative study found an average monthly revenue of IDR 2,973,904 among student entrepreneurs with some variation across different SEDS partner institutions. While many of these businesses are still young, they are often successful in generating revenue. This is a positive development for a project focused on using entrepreneurship as a vehicle to increase incomes. Yet most respondents themselves view entrepreneurship in much broader terms. They identified improving social conditions, not just creating personal wealth, as an important reason for starting their businesses. Creating employment was a frequent issue raised by respondents. “The biggest happiness in my life is when I pay my employees,” said one. Another stated “It’s not about the money but how we help people,
how people can be supported through the business.” In many cases respondents outlined how they specifically provide jobs for people who are marginalized. Respondents’ businesses employ poor students, orphans, people from broken homes and a number of people with disabilities. In many cases, respondents claimed this was more important than becoming personally wealthy.

> *“A civil servant or desk worker can’t impact society as well. The entrepreneur can give multiple impacts on society beyond being at a desk.”*
>
> *UNHAS respondent*

Respondents pointed to other ways their businesses contribute to a larger social good. Those with culinary businesses frequently outlined their focus on providing
healthy food options to promote better health in their communities. Others spoke of using their business to support their family, particularly through providing tuition money for siblings. What is remarkable about respondents’ focus on entrepreneurship as a social good was that it was raised unprompted in the interviews. No interview questions were specifically directed to the issue. This indicates a conscious and real commitment to a social component in respondents’ business life. Entrepreneurship is as much about contributing to a social good as it is an engine for economic growth. One respondent even criticized the SEDS course for missing this. “The class focused on entrepreneurship as a concept related to profit. The curriculum forces students to run after money. Entrepreneurship is not just about money here but how to benefit people. The curriculum misses this.” Some SEDS lecturers agreed that while the capacity building they received through SEDS was very effective in providing them with an ability to design and deliver applied entrepreneurship programming, the training did not always reflect cultural realities in Indonesia. “We sometimes get trapped in a western model,” stated one. Overall, respondents’ understanding of the social role of businesses represents a departure from western notions of entrepreneurship. It suggests a cultural-specific conceptualization of entrepreneurship may exist among Indonesian students. This represents a fruitful avenue for future research that can make an original contribution to the entrepreneurship literature.

Lessons Learned:

- Applied entrepreneurship programming in Indonesia should incorporate the social aspects of entrepreneurship as a key component of curriculum. This should be an integrated theme that cuts across all curricular content rather than just a focus on corporate social responsibility as one topic related to entrepreneurship.

Major Finding #6: *The applied focus of SEDS is a victim of its own success. Unintended consequences that emerge from the applied approach have led students to reject the value of theory in the learning process.*

The applied focus of the SEDS project was very successful in re-orienting partner universities to provide entrepreneurship programming that blends theory and practice. It moved beyond the domination of theory and traditional teaching methods that typically characterize Indonesian higher education. Respondents very clearly enjoyed and preferred the applied component of this approach. Yet the applied nature of SEDS is a victim of its own success. A set of unintended consequences emerged from the applied focus. Respondents want even more applied learning than they received through the SEDS curriculum. They also were vocal in their preference for lecturing to be dropped entirely as a teaching method, both in SEDS courses and across all university programs. Respondents also want lecturers to provide very specific technical information related to respondents' businesses. Many demanded that this technical knowledge to be incorporated directly into the curriculum despite it being specific to their own business. "We need technical skills in soap production," said one respondent. Multiple respondents also raised the issue that SEDS lecturers were not business owners themselves. They felt it necessary for lecturers to have both an academic background and practical business experience. "It would be better if the lecturers were entrepreneurs in addition to being academicians," said one respondent, "some have motivation but not the skills." Many respondents experienced a valuable applied learning experience through SEDS and, as a result, are demanding an even greater applied focus.

"We cannot apply the theory as it is not relevant."

Student respondent

Overall, the demand for a greater focus on applied learning has led some respondents to reject theory entirely in the learning process. The balance between theory and practice in the content of the SEDS courses is dismissed by some. Not all of the respondents rejected theory but, for those who do, the rejection is often stark. "Theory and practice? We don't need the theory," stated one respondent. Another said, "We find that the real world is different and the theory is not applicable." Many respondents do not understand the interrelationship between theory and practice or how theory informs practice. This is a significant concern for universities. A key role of universities in society is to generate critical thinkers, not just employable graduates. SEDS effectively addressed the issue of theory-heavy education in Indonesia but the pendulum swung the other way in SEDS where some students are demanding learning that is solely applied. The challenge is not only for SEDS universities but for applied learning on its own terms. The literature points out that effective applied learning requires a mixed balance of methods (Lourenço and Jones 2006; Lourenço, Taylor and Taylor 2013). Many respondents are demanding a learning environment that does not have this balance.

Lessons Learned:

- Applied entrepreneurship curriculum must be designed so the role of theory in informing practice is at the foundation of students' applied learning. This can be done through both curriculum content design and the choice of teaching methods.

Major Finding #7: *Female student entrepreneurs generally achieve less success than male student entrepreneurs in terms of revenue and amount of employees.*

Gender was a cross-cutting themes in the SEDS project. The intention was to develop university-level applied entrepreneurship programming that promotes gender equality. There are multiple cases where female respondents benefitted more from their SEDS education than men. A much greater proportion of women were motivated by SEDS extra-curricular activities than men. Women also reported applying the Business Model Canvas and business planning skills much more often than male respondents. Yet female respondents were less successful in their businesses than men in terms of revenue and employment. While this cannot be generalized beyond these respondents, the quantitative data collected as part of the SEDS evaluation provides further confirmation. It shows that the average monthly revenue of new businesses started by students or graduates who took a SEDS course is just under IDR 3,000,000. This figure, however, masks a dramatic gender difference. Female entrepreneurs' average monthly revenue is only IDR 1,469,000 compared to IDR 5,587,000 for male entrepreneurs. Female entrepreneurs are therefore generating revenue that is only about a quarter of what their male counterparts generate.

A similar difference is evident with employment numbers. Here, again, female entrepreneurs generate about a quarter of what male entrepreneurs do. The average number of jobs created by a new business started by a male is 1.65 compared to just 0.43 for female entrepreneurs. The findings therefore suggest only partial success in promoting gender equality. Female respondents are benefitting more than males in terms of being motivated by SEDS and applying new entrepreneurship skills. This does not yet translate, however, into female-headed businesses being consistently as successful as male-headed ones. Differences of opinion existed among SEDS lecturers as to why this situation exists. Some felt there are cultural barriers to women in the marketplace. Others disagreed, suggesting women choose certain types of businesses that are less likely to make money. Still others suggested women are interested in making enough money for their families' needs and are not concerned with business growth. The gender differences related to business outcomes and the reason for these differences are an area in need of further exploration.

Lessons Learned:

- Research is required to better understand why female Indonesian entrepreneurs who develop motivation and skills through entrepreneurship education are not as successful in business as their male counterparts. The research results should be incorporated into entrepreneurship curriculum in order to promote better gender equality.

Major Finding #8: *Effective marketing, including marketing using social media, is a challenge for new businesses in the transition from education to practice.*

Finding #1 outlined that marketing skills were overwhelmingly reported as the most important skill respondents learned. When respondents started their businesses, however, effective marketing was also one of the biggest challenges they faced. In many cases, respondents stated that marketing problems were constraining the growth of their businesses. This is consistent with what has been reported elsewhere (Tambunan 2007). What is notable about the SEDS findings is that there is again a significant gender difference. Respondents that reported marketing challenges were almost entirely women. This may in part help explain Finding #8 where women's businesses generate less revenue and employment. Why women entrepreneurs face greater challenges with marketing remains unclear.

Another marketing issue that emerges is the use of social media. Almost every respondent uses social media to market their business. Some stated that they learned social media marketing techniques through a SEDS course. Most claimed to use their own knowledge. Social media should hold significant potential for effective marketing. Yet most respondents do not make use of its potential. Facebook, Instagram, WhatsApp, Line, and BBM groups are all used but respondents tend to use them only to connect to family and friends as potential customers. A number of respondents have used these online tools much more effectively to reach a broader market but their number is small. The growth of many respondents' businesses would be enhanced by more creative use of social media.

Lessons Learned:

- Marketing curriculum in the Indonesian context should focus explicitly on social media and online marketing strategies including guerrilla marketing techniques and online platforms like Tokopedia.

Major Finding #9: *Time management is overwhelmingly the biggest challenge student entrepreneurs face.*

Managing time effectively is by far the largest challenge respondents faced in both starting-up and managing their businesses. This is not surprising as respondents, most of whom have not yet graduated, are balancing being both a student and an entrepreneur. In many cases the problem is a reflection of the requirement in some SEDS courses to develop a product or start a business. Respondents found developing a product or business to be one of the most rewarding parts of the courses but it has created a burden where respondents find it difficult to manage their time. In extreme cases, insufficient time to devote to both their businesses and their studies has led students to neglect their studies, lose customers, pass on growth opportunities, or temporarily shut down their businesses during the exam period. In some cases, the time management issue has decreased respondents' enthusiasm for continuing with

> *"We had a plan to distribute our product to stores but there wasn't enough time."*
>
> *Student respondent*

the business after graduation. Some respondents indicated that they need to learn time management skills as the SEDS curriculum did not cover the topic. Most SEDS lecturers agreed

that it needs to be incorporated as a topic. A number of SEDS lecturers, however, suggested there is a need to re-think requiring students to start a business during their studies. The focus, they suggested, should be on equipping students with the necessary applied skills to start a business once they graduate. Other SEDS lecturers disagreed, stating that the requirement helps foster student motivation by putting their learning into practice right away under the supervision of a lecturer. These differences demonstrate the challenge of addressing an issue that is both a key driver of student learning but also a source of time management problems. Addressing the issue is critical for promoting future student success.

Lessons Learned:

- Education or training in time management skills needs to be a core part of applied entrepreneurship programming. This can be done by adding it into the curriculum, incorporating it into existing curriculum content, or providing it through extra-curricular support such as coaching or training.

Major Finding #10: *Lack of funding is a barrier to business growth but students do not seek formal loans.*

Many respondents wrestle with finding enough money to keep their businesses running. In some cases this is a direct reflection of the time management issue as some students claimed they do not have enough time to seek funding or write proposals. In other cases it is a reflection of the business and bureaucratic context they face. Respondents understand the availability of bank loans and how to apply for them. Only one respondent, though, had such a formal bank loan. Some stated that the need for collateral was a barrier. Two respondents claimed that the granting of loans is plagued by nepotism. Still others pointed to not having a business license or other required paperwork as the reason they do not pursue a bank loan. Only one respondent had a business license out of the 56 interviewed. Most respondents claimed they did not apply for a license given the bureaucratic culture of Indonesia. Getting a license, according to these respondents, was too time consuming, required paying a bribe, or meant they would then have to pay taxes as part of the formal economy. Remaining in the informal economy was viewed as a smart business move to avoid these issues. The broad challenge this raises is that growth in the economy is often linked to businesses in the formal sector as they are more productive (La Porta and Shleifer 2008; Vial 2011: 235). The more immediate challenge is how student entrepreneurs can better access needed funding and enter the formal economy to grow their businesses.

"The lecturer provided information on bank loans but I'm not following up on it."

Student respondent

One of the ways many respondents fill the funding gap is to secure informal loans from family members. This was primarily the case for business start-up rather than on-going business management or business growth initiatives. Without family funding, respondents would often be unable to put the knowledge and skills gained through SEDS into starting their businesses. Other sources of funding included money won in business competitions, scholarship money, and pooled money among all business partners. All of these help with business start-up. However, the on-going challenge to secure funding for business growth, when combined with respondents' unwillingness to pursue formal bank loans, is a major barrier to growth.

Lessons Learned:

- Supporting the funding needs of student entrepreneurs needs to move beyond providing loan information in the classroom to engaging the larger university in networking with banks, government and entrepreneurship organizations to identify or develop funding opportunities that are accessible to students with little collateral.

Major Finding #11: *Group dynamics among student business partners often inhibit successful business management.*

"We face challenges with different opinions and worries about money in the group. Coming to consensus on funding was very challenging. Some people don't show up to meetings."

Student respondent

Many of the businesses created by respondents involve partnerships among friends or fellow students. Thirty-four out of the 56 respondents had one or more business partners. In many cases this is a reflection of the requirement in some SEDS courses to work as a group to develop a product or business. In addition, respondents pursued a partnership approach as a means to share risk, reduce individual time commitments and pool personal funds. Given the challenges with time management and funding, this is a useful strategy to pursue. At the same time, respondents regularly reported problems with group dynamics among business partners. The partners often disagree on key business issues, have ego conflicts, cannot find time to meet one another or contribute unequally in terms of money or time. The latter

issue is particularly challenging as business partners also tend to be friends. "Collecting equal money from each is a problem," said one respondent. When asked how the she dealt with the issue, the respondent said she just adds more of her own personal savings to the business to make up the difference. This kind of action was quite common. When discussing how problems with group dynamics are resolved, respondents usually mentioned that they were solved in a way that preserves the friendship rather than what is in the best interest of the business. This is, of course, a noble way to address the problem but is not necessarily the best business decision. Many respondents requested training that would assist them in dealing with challenging group dynamics.

Lessons Learned:

- Promoting effective group dynamics among student business partners would be enhanced by the use of an Agreement Contract provided by the university and signed by partners that outlines roles, capital contributions, profit sharing and other issues.

Major Finding #12: *Student businesses tend to lack innovation.*

One of the challenges for entrepreneurship in Indonesia is the lack of innovation and aversion to risk (Widyarim et al. 2016; Tambunan 2007: 99; Vial 2011). A small number of respondents are infusing innovation into their businesses in meaningful ways. The majority, however, are not. This can be seen not only in the lack of innovation in using social media as discussed above, but in how students develop a business idea. A significant number of respondents developed their idea by searching Youtube and copying ideas found there. Others started the same kind of business as a relative. In many cases, the lack of student innovation is driven by the need to create a product or business within a SEDS class. The limited timeline of a 16 week class limits students' abilities to think innovatively. The results of this can be seen in the kinds of businesses respondents are running. Almost half are culinary businesses selling products such as coffee, tea, meatballs, rice, or baked goods. Several respondents ran identical travel agencies with the exact same online strategy and target market. Others sold clothing online sourced from Jakarta. This lack of

"Lack of ideas is a challenge. Sometime I would like to expand my business but I need creativity and innovation and I don't have it. My ideas chase each other."

Student respondent

innovation is not necessarily a bad thing. A business can do well even if it is not innovative. The larger challenge, however, is that entrepreneurship in the Global South needs to engage in innovation if it is to compete in a global market (World Bank 2013). While these student entrepreneurs are running small-scale and very local businesses, greater innovation would contribute to greater growth potential, increasing both incomes and employment. Many respondents outlined how they would like to be innovative to grow but they lack the knowledge for how to engage in innovative ways. They recommended the SEDS curriculum focus on innovation in a more intentional way.

Lessons Learned:

- Entrepreneurship curriculum should teach students to assess when innovation is useful while coaching should support student innovation where appropriate.

Major Finding #13: *Challenges related to marketing, time management, funding, partner dynamics and innovation all limit business growth which, in some cases, threatens long-term business sustainability.*

The challenges outlined in Findings 9 – 13 all combine to limit the growth of many respondents' businesses. Ineffective marketing, lack of time and money, often contentious business partner dynamics and insufficient innovation do not allow respondents to grow their businesses as they would like. While most of respondents' businesses are relatively new, these early limits to growth are concerning. Time management is the most significant issue as it weaves through and exacerbates many of the other challenges. Lack of time contributes to respondents' inability to find sufficient funding. It means group dynamics are affected as business partners cannot find the time to meet. It also means students are too pressed to think innovatively in the business idea stage. Addressing the time management issue is therefore a very critical one. Overall, the limits on business growth have implications for the sustainability of some respondents' businesses. The insufficient growth some respondents experience translates into some deciding to pursue a salaried job upon graduation. In many cases they want to continue the business on the side but as a smaller enterprise. "I want to continue [the business] but also get a salaried job," said one respondent, "It was hard to do it while a student."

Respondents with decreased interest in continuing with their business in the long term represented about 20% of the total. This is not necessarily a problem, especially as many

respondents entered university to gain specific disciplinary education, such as teaching, that they want to pursue as a salaried career upon graduation. Yet it suggests these challenges are a drag on the sustainability of student businesses. Addressing the challenges either through revisions to existing entrepreneurship programming or in the design of new programming is critical in order to create the enabling conditions that support the significant potential of applied entrepreneurship programing in Indonesia.

Lessons Learned:

- Addressing the multiple student challenges of time management, marketing, funding, partner dynamics and innovation should be done as a holistic strategy that recognizes they work together to limit business growth and sustainability.
- Applied entrepreneurship programming should be designed to recognize the twin burdens of student life and entrepreneurship life and how these might be best balanced to promote sustainable businesses upon graduation.

Major Finding #14: *The overall SEDS experience demonstrates that an applied and participatory education model is effective in the Indonesian cultural context.*

The overall experience of SEDS helps begin to address a gap in the research literature that is dominated by western experiences and perspectives. The experience of student respondents and SEDS lecturers who participated in this study demonstrates the effectiveness of an applied approach in Indonesia. The approach was effective in building real world skills while concurrently promoting motivation and enthusiasm among both students and lecturers. In addition to the many successful businesses run by respondents, a number of SEDS lecturers stated that their experience as SEDS lecturers has motivated them to become entrepreneurs themselves. Others have enrolled in PhD studies focused on applied entrepreneurship education. The challenges outlined in previous findings need to be addressed but the SEDS experience overall illustrates that an applied approach is a successful approach in Indonesia.

Lessons Learned:

- The applied education model is most successful when it aligns with the larger institution's vision and mission and where regular communication occurs with executive level university administrators.

Lessons Learned:

- The applied model of SEDS programming is adaptable to other university programs unrelated to entrepreneurship and should be expanded to these programs where appropriate.

5. RECOMMENDATIONS

The experience of the SEDS project demonstrates the significant success an applied approach to entrepreneurship programming can have in promoting student entrepreneurship in Indonesia. It also illustrates some of the challenges associated with the strategy. Based on the study findings and the lessons learned, the following are a set of recommendations intended for Indonesian universities more broadly that are interested in fostering entrepreneurship among students and graduates.

Recommendation #1: Applied entrepreneurship programs in Indonesia should be designed around the concept of entrepreneurship as a social good as a key curriculum foundation. This will result in applied entrepreneurship education that is better connected to the collectivist values of Indonesian culture.

Recommendation #2: Applied entrepreneurship programming should be designed to fit directly within its larger institution's mission and effectively within its administrative regulations. This includes designing applied programming that provides appropriate incentives or compensation for lecturers given their expanded roles.

Recommendation #3: The SEDS partners, or other Indonesian universities, should link entrepreneurship programming to a research agenda on applied entrepreneurship education. Research results can be used to improve future education programming and contribute to entrepreneurship theory-building from a perspective of the Global South. Two areas of potential research collaboration emerge from the lessons learned, including gender differences in entrepreneurship outcomes and the social role of entrepreneurship in Indonesia. The latter would provide an original contribution to entrepreneurship theory and support culturally appropriate programming.

Recommendation #4: Indonesian universities interested in delivering applied entrepreneurship training should work together to network with government, banks and other stakeholders to secure or develop funding opportunities for student entrepreneurs. This should be combined with an education strategy for students to increase their understanding of the value of such funding as well as skills in managing loans.

Recommendation #5: Indonesian universities within individual provinces or regions should consider developing and delivering joint extra-curricular activities for all of their students. This will expose them to more customers and spur greater innovation through broader interaction with other student entrepreneurs.

Recommendation #6: Institutions that deliver entrepreneurship training and support should institutionalize the link between entrepreneurship curriculum and support services/extra-curricular activities. Strategies to do this include incorporating extra-curricular activities into course learning outcomes, formalizing a coaching system that assigns coaches to students during and after the entrepreneurship course, and creating a database of student entrepreneurs in order to track them and supply on-going support services prior to and after graduation.

Recommendation #7: Universities with entrepreneurship programming that includes students starting their own businesses should assess the sequencing of when students start their businesses as part of the institution's program. Both the benefits and challenges of SEDS programming were often related to students starting their businesses while still in university rather than as graduates. Assessing the benefits and challenges of this approach, and making revisions where needed, will strengthen future programming.

Recommendation #8: Applied pedagogy and programming should be expanded to other higher education study programs/disciplines beyond entrepreneurship, ensuring that these programs incorporate a balance between theory and practice that is relevant to the larger role of universities in Indonesia and move beyond the theory dominant focus of current Indonesian programming.

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