RVO RESEARCH AGENDA – RESEARCH LINE 2:

Scaling businesses in low and middle-income countries

Key points

* Scaling refers to the process of **expanding or replicating successful projects, interventions, or innovations** to reach a **larger audience or address a broader set of issues**. Scaling is essential for the **long term financial survival of businesses operating in low-income regions** due to the stringent price-performance requirements and low margins per unit of sale

* Application of existing tools on scaling can improve the current OC programs. There are various practical tools available that can help a business develop a scaling strategy, assess their scaling readiness, building resilience and help them develop the capabilities necessary to scale their organization. **Up until now, few OC hubs include scaling explicitly in their programs, while scale is essential for entrepreneurs operating in low- and middle income environments**. *Gaps for research include understanding how business can adapt to external shocks during scaling (e.g. climate resilience, changing economic conditions), best training methods and best practices to assist entrepreneurs during scaling and the effect of gender dynamics on the scaling process.*

* Successful scaling requires a thorough understanding of a business' supply chain. **A business needs to understand current supply chain bottlenecks ánd know how the supply chain will change after implementation of a certain scaling strategy, in order to assess if the changes needed are feasible**. In some cases, it might be wise to develop scaling strategies with key actors in the supply chain and beyond. *Gaps for research include understanding how businesses can improve their access to markets, distribution networks and bigger supply chains, and how businesses can leverage technology and partnerships. Gaps for practice include assessing how OC programs can better support entrepreneurs with effective supply chain management and scaling strategy development, depending on the stage of the business, as well as the role digitalisation can play here.*

* Ecosystem actors can enable or hinder businesses' potential for scale. However, **most ecosystem actors are not directly involved with individual businesses, but might be more concerned with scaling an entire subsector**. *Gaps for research include understanding how ecosystem actors such as governments and financial institutes create a hindering or enabling environment within a certain subsector and investigating in what way commercial incubators/accelerators and donor programs such as OC can influence this to create an enabling environment. Are there lessons learnt across contexts? Gaps for practice include determining how OC can set up programs with scale in mind. Is a sector focused training program more impactful than sector-agnostic?*

Introduction

This RVO research line highlights core dimensions of scaling the businesses of entrepreneurs operating in low and middle income countries (LMICs) and gaps for research in the Orange Corners (OC) Programme. The research line draws attention to the importance of scaling (**Part 1**) and highlights key

points when scaling the individual business, including the role of digitalization (**Part 2**). The research line continues with a discussion on how to involve the supply chain during scaling (**Part 3**), and the role of the wider entrepreneurial ecosystem during scaling (**Part 4**). The research line concludes with a summary and concluding remarks (**Part 5**). Potential questions for research within RVO Orange Corners programme are suggested throughout the research line, at the end of each section.

Part I: Importance of scaling

Scaling is essential for the **long term financial survival of businesses** operating in low-income regions due to the stringent price-performance requirements and low margins per unit of sale (Desa & Koch, 2014; Hammond, Kramer, Katz, Tran, et al., 2007b; Prahalad et al., 2012; Prahalad & Hart, 2010). Thus, to become financially sustainable businesses must reach a certain scale. Beyond this, further scaling can secure more profits.

1.1 Scaling for development and inclusive business

Scaling is a particularly important point of attention for development since, in order to reach the millions of people with unmet basic needs, the developmental impacts of business' innovations must scale (Aschari-Lincoln & Jacobs, 2018; Bauwens et al., 2020; Bocken et al., 2016; Gradl & Jenkins, 2011). Scaling businesses to reach underserved populations helps address this challenge by **creating jobs, generating income, and providing affordable goods and services**. By doing so, businesses contribute to lifting people out of poverty, fostering economic stability, and reducing inequalities. At Orange Corners, most of the businesses we work with strive for positive social or ecological impact and involve low-income groups either within their operations or as customers, therefore most OC businesses are considered to be '**inclusive businesses'** (IBs).

*An **inclusive business (IB)** is a for-profit business that engages low-income groups as supplies, distributors, retailers, workers or customers in a manner that seeks to generate positive social or ecological impact.*

1.2 Challenges of scaling

In developing contexts, **understanding local market dynamics** is vital for business development including both the nature of the local economy, and social, cultural and political factors that might influence the scope and scale of the business. Unfortunately, relatively few inclusive businesses have scaled their impact sufficiently, and not for a lack of trying (Gradl & Jenkins, 2011; Karamchandani et al., 2011). There are many reasons, both internal and external, why inclusive businesses have encountered challenges in scaling their impact. Frequently reported barriers include a **lack of financial resources, low levels of skills and education, lack of business networks** as well as **infrastructural and institutional shortcomings** (Chaurey et al., 2012; Doherty & Kittipanya-Ngam, 2021; Eitan et al., 2019; Gradl & Jenkins, 2011).

The business models of IBs are expected to compensate for such constraints in market information, ineffective regulatory environments, lack of proper physical infrastructure, insufficient knowledge and skills, and lack of access to proper financial services (UNDP, 2008; Gradl & Jenkins, 2011). This will necessarily require **strategic adaptation** of the business model to the socio-economic reality and local needs, and **flexibility** to changing conditions. In particular, the need to provide extensive customer education, provision of financial services, supplier or retailer training and more (Lewis, 2002; Seelos et

al., 2011), can make these business models 'high-touch'. Such business models are often expensive, and may essentially be unscalable (Karamchandani et al., 2011), whereas the high costs make the need for scaling all the more urgent.

External shocks

External shocks, such as **economic crises, political instability, natural disasters and climate change, and global pandemics**, are increasingly influencing the potential of businesses to scale. These unpredictable events can disrupt established scaling strategies and pose significant challenges to the growth and sustainability of a business. Economic downturns can lead to decreased funding opportunities and reduced consumer spending, affecting the financial stability of social businesses. Political instability may result in regulatory changes or security concerns that disrupt operations and expansion plans. Natural disasters and climate-related factors can damage infrastructure, impact the local environment and hinder supply chains, while global pandemics, like COVID-19, have highlighted the vulnerability of businesses on all fronts. In response, inclusive businesses must demonstrate resilience, adaptability, and contingency planning in their scaling efforts to mitigate the impact of external shocks, ensuring they can continue to pursue their missions. Overcoming challenges to scale requires interventions on the level of the individual business, their value chain and the business ecosystem.

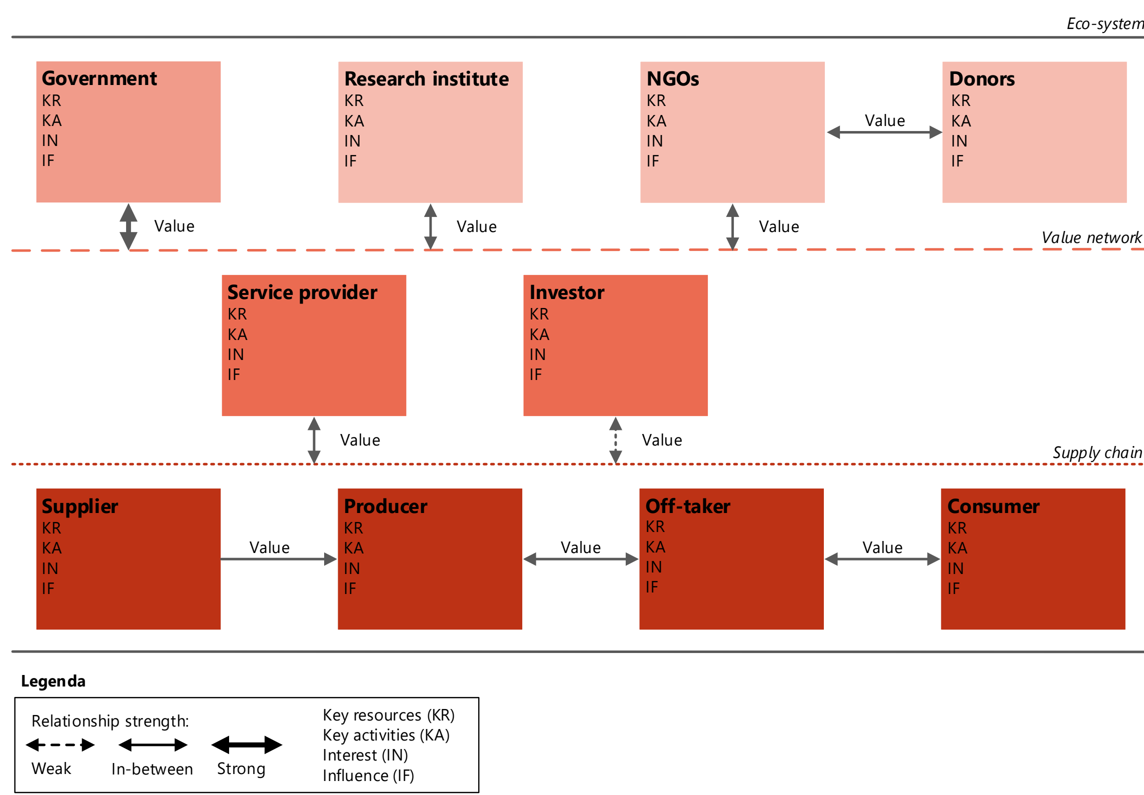
Research questions for the OC programmes:

→ What are the key needs and challenges entrepreneurs in OC countries face while they are scaling? How and why does this differ per country?

→How do entrepreneurs deal with the tension that arises from financial sustainability and create social/environmental impact?

Box 1: Appreciating business models, value chains and the broader business ecosystem

A **business model** describes how a business creates and captures value. Interactions and transactions between different actors in the supply chain regularly take place in order to create value for end-users/customers. The **value chain and network** illustrates the links between actors and shows tangible and intangible value transactions (e.g. the money flows, contractual information or other types of exchanges). It shows how businesses are involved in the value creation process (Verna Allee, 2008). The **business ecosystem** naturally evolves from the value network and takes a more holistic approach including all relevant stakeholders that can influence the individual business, such as governmental actors, research institutes, non-governmental actors, regulators, financial institutes, competitors and often comprises several, potentially competing, value networks (Moore, 2006). Source: Derks et al. (2022)



Part II: Scaling the individual business

Inclusive businesses operating in LMICs face a variety of challenges that make the need for scaling all the more urgent. Research has studied the processes and strategies for organisations and businesses to scale social and/or ecological impact extensively over the past decades (Cannatelli 2017; Bradach 2003; Scheuerle and Schmitz 2016). In this part, we discuss important implications of this research for facilitating inclusive businesses.

2.1 Scaling strategies for social and/or ecological impact

To scale social and/or ecological impact, one can distinguish between **breadth impact and depth impact**. Breadth impact encompasses a more quantitative definition of scaling, where an organization or program increases its customer base. Breadth impact builds upon *economies of scale*, in which the

unit-cost of production is reduced as the product or services is replicated through other geographical locations (Desa and Koch, 2014). Depth impact, refers to expanding the number and type of products or services offered, i.e. horizontal diversification. Depth scaling builds on *economies of learning and connectedness* wherein the network of the business is used to add new businesses, products or services to what may become a diversified portfolio.

To scale one's impact, a business should have a **clear scaling strategy**, outlining the pathway for growth of the organization and increased impact. Before developing a pathway to scale, a business should describe its' scaling ambition. This can be a brief description of what should be scaled, where, when, how much, for whom, by whom and why (Jacobs et al., 2018). There are plenty of tools to develop scaling strategies. A scaling strategy refers to the set of tactics used to scale value creation. One widely known scaling strategy tool is the framework developed by Bocken et al. (2016), shown in figure 1, which captures three dimensions of scaling strategies: 1) increasing the beneficiaries (e.g. customers); 2) expanding the business' social impact; 3) increasing the generated income.

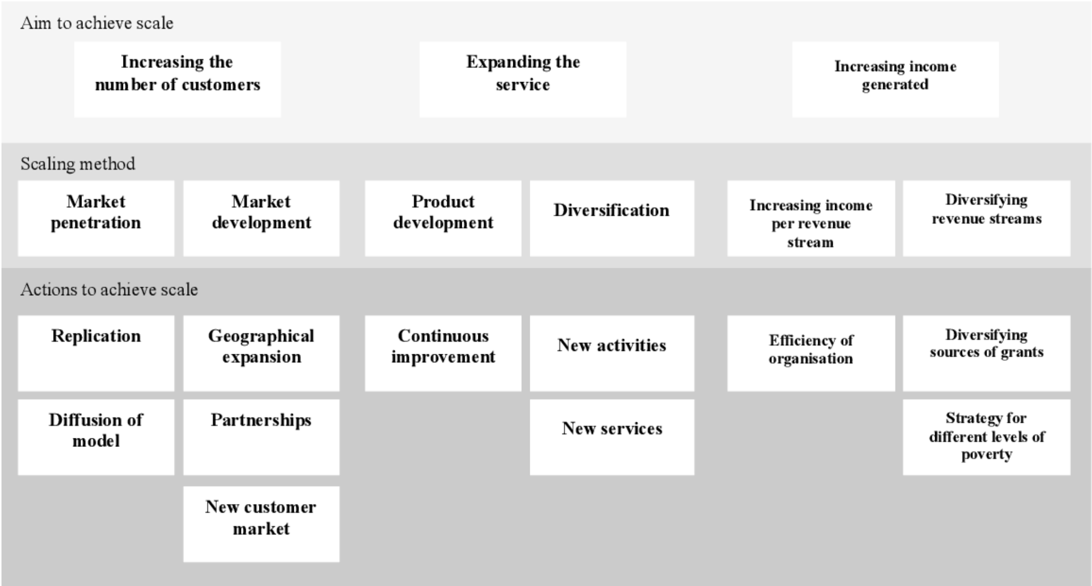


Figure 1: Bocken et al. (2016)'s scaling strategy framework.

Each of these three dimensions can be explored via a different scaling method and accompanied by different actions to achieve scale. Adopting 2-3 strategies simultaneously while scaling, has proven to work best in practice.

Box 2: Needs vs. Wants, what are low-income customers willing to pay for?
The case of Komodo Water in Komodo Islands, Indonesia

An important element to include during strategy development is the inclusion of a customer's willingness to pay for products and services. Inclusive businesses whose products or services solve a real need and are affordable, often expect customers to pay for their service. However, what a customer needs, might be quite different from what a customer wants. To illustrate this difference, let us look into the case of Komodo Water. Komodo Water is a social enterprise which provides clean water access through reversed osmosis from sea water to remote communities on the Komodo islands. The price of the water is more than 10 times

lower than clean drinking water on the mainland and provides a great alternative to drinking water from brackish wells, which is causing diseases such as diarrhoea among community members. During their first years of operation Komodo Water struggled significantly, because although clean water is what the community *needed* it was not what they *wanted* and were willing to pay for. Eventually Komodo Water partnered with local community health workers, to spread the word about the importance of drinking clean and safe drinking water, and started to diversify their product offering, which has let to reaching sufficient scale to sustain their operations.

2.2 Core organizational capabilities to achieve scale

Entrepreneurs who achieve initial success with their inclusive business idea often have difficulty replicating these ideas on a larger scale. To determine what factors contribute to success when social entrepreneurs scale up their efforts, Bloom and Chatterji (2010) developed a model that identifies **seven organizational capabilities, or "drivers."** The drivers are identified by the acronym **"SCALERS"**: staffing, communicating, alliance building, lobbying, earnings generation, replicating, and stimulating market forces.

- **Staffing** refers to the effectiveness of a business in meeting its workforce needs, which encompass hiring managers, staff, and volunteers with the appropriate skills for their respective roles. Businesses prioritizing this aspect closely manage their personnel and human resources functions to ensure effective recruitment, training, evaluation, and compensation of staff. Additionally, many inclusive businesses must give equal or greater attention to the recruitment, training, and management of unpaid volunteers, who often play a crucial role in resource-constrained social enterprises. Boards of directors must be skilled in identifying, recruiting, guiding, and retaining top-level management to lead the business.
- **Communicating** refers to a business' capacity to persuade stakeholders that its strategy is worthwhile and deserving of adoption or support. Giving priority to this indicates the business' proficiency in convincing potential beneficiaries to utilize its services or adopt socially beneficial behaviors, persuading volunteers and employees to contribute to the business, encouraging consumers to engage with the business revenue-generating activities, convincing donors to provide funding, or cultivating positive public perceptions of the business' programs.
- **Alliance building** reflects a business' effectiveness in forming *partnerships and collaborations* to achieve desired social changes. Recent research underscores the importance of alliance building in successful scaling efforts. Businesses that excel in this capability recognize the value of collective endeavors rather than attempting to operate in isolation.
- **Lobbying** represents a business' ability to advocate for government actions that align with its interests. Skillful lobbying enables businesses to secure support from courts, administrative agencies, legislators, and government leaders.
- **Earnings generation** measures a business' proficiency in generating revenue streams that exceed its expenses. Successful businesses in this regard do not encounter difficulties in covering their financial obligations or funding their activities.
- **Replicating** assesses a business' effectiveness in duplicating its programs and initiatives. A business skilled in replication ensures that its services, programs, and initiatives can be reproduced or extended without compromising quality. Various tools, such as training, franchising, and contracting, are employed to maintain quality control.

- **Stimulating market** forces encompasses a business' ability to create incentives that motivate individuals or institutions to pursue private interests while simultaneously serving the public good. Businesses with this capability excel in creating markets for products and services, such as microloans or carbon credits, which can result in significant social change.

The SCALERS model suggests that the extent to which an individual driver influences scaling success depends on various factors in a business' internal and external environment that can enhance or suppress a specific driver's influence. For example, the degree to which staffing drives scaling success depends on the business' labor needs. When labor needs are high (e.g., the business provides highly skilled services to large numbers of clients), staffing is crucial for successful scaling. However, when labor needs are low (e.g., the business' strategy is not based on service delivery), other drivers are more critical to success. In some situations, effective deployment of all seven drivers is needed for successful scaling. In others, success is dependent on a few critical drivers.

The SCALERS model can act as an **evaluation framework** that helps inclusive businesses to track and assess scaling progress and to identify ways to improve. For example, a business might use the model to assess its performance and determine how past actions have helped or hurt its ability to scale. The model can also appraise the potential impact of future plans. And, finally, ESOs might use it to develop trainings improving the capabilities of an organization on each driver.

2.3 Capital availability during scaling

Funding plays a pivotal role in the successful scaling of inclusive businesses in LMICs, where access to financial resources can often make the difference between realizing their scaling ambition or stagnation. The infusion of capital enables these businesses to **expand their operations, reach more beneficiaries, and increase their impact**. There are various types of funding available, ranging from grants and impact investments to loans and equity financing. Financing mechanisms such as impact bonds, crowdfunding, and venture philanthropy offer diverse avenues for raising funds. Funding is typically sought at different stages of growth, including the startup phase, early expansion, and later stages of scaling. However, navigating the "valley of death," a critical stage where businesses require substantial funding to bridge the gap between early development and sustainable growth, remains a significant challenge. Adequate and strategic funding is essential to guide inclusive businesses in LMICs, but in many of the countries where OC is active, funding options for inclusive businesses are rather limited. This is why OC has started the Orange Corners Innovation Fund (OCIF), which provides small grants and loans of upto 50.000EUR to OC graduates to grow their business. However, OCIF can only serve 30-50 entrepreneurs per country per year, while the need for capital is much more widespread.

2.4 Digitalization as an enabler for scale

> ***Mobile technology** and online platforms can support communication, marketing, and transactions.*

Digitalization has emerged as a powerful enabler for scaling inclusive businesses in low-income countries, **transforming the way they operate and reach their target populations**. In particular, **mobile technology** can support remote communication, marketing, and online transactions. Digital platforms may offer a cost-effective reach to wider markets and customers. For instance, mobile money platforms like M-Pesa founded in Kenya have facilitated *financial inclusion* by allowing individuals in remote areas to access banking services, enabling microfinance institutions to scale their operations and extend loans to previously underserved communities. In healthcare, telemedicine platforms like Babyl in Rwanda have harnessed

digital technology to provide remote medical consultations and health education to rural populations, significantly expanding *access to healthcare services*. Furthermore, e-commerce platforms such as Jumia founded in Nigeria have enabled small-scale artisans and entrepreneurs to *access larger markets*, boosting income opportunities and supporting local businesses. These examples underscore how digitalization not only enhances operational efficiency but also extends the social impact of businesses in low-income countries, making essential services more accessible to marginalized communities.

Challenges and risks of digitalisation

While digitalization offers numerous benefits, it also presents downsides and challenges when used to scale inclusive businesses, particularly in low-income countries. First, digitalization can **exacerbate the existing digital divide**, where marginalized communities lack access to the necessary technology and internet connectivity. This limits the reach of inclusive businesses and excludes those who are digitally disadvantaged. For example, in rural areas of low-income countries, inadequate infrastructure and limited access to smartphones or computers hinder participation in digital-based initiatives. Second, as businesses collect and store vast amounts of data, there are significant **privacy and security concerns.** Data breaches, identity theft, and misuse of personal information can erode trust and negatively impact users. For instance, a social enterprise implementing a healthcare app must address concerns about the security of patients' medical records. In many LMICs regulations around data collection and storage are insufficient to prevent misuse of data. Third, the increased use of digital technology can have **environmental consequences** due to energy consumption and electronic waste. For example, the manufacturing and disposal of electronic devices contribute to pollution and resource depletion.

2.5 Gender barriers to scale

Globally, **high-growth entrepreneurship tends to be associated with men whilst low-growth entrepreneurship is associated with women** (Gupta, 2019). Yacus et al. (2019) find that women in "non-feminine industries" or male dominated sectors (e.g., construction) are significantly less likely to achieve high-growth status. In a study on Canadian businesses, Vu and Denny (2021) indicate the influence of gender ownership on growth and factors associated with growth (innovativeness and intellectual property) may be complex. Whilst there is no general link between gender ownership and being a scale-up, fewer successful scale-ups may be run by women, and they employ fewer people and generate less revenue than scale-ups with men ownership. Further, female owned businesses are shown to be less likely to overcome barriers to growth and exporting and reach scale-up status, especially by employment. **Gender is deemed to be a 'crucial mediating variable'** in a firm's growth process (Vu and Denny, 2021). In a study of businesses in the Philippines, whilst barriers for growth for both male and female businesses were found to be similar, female owned businesses faced more challenges related to accessing loans, engaging in innovation, expansion and exporting (Dano-Luna and Caliso 2019). In Kenya, Mwobobia (2022) indicates that **small scale female entrepreneurs struggled with a lack of finance, business discrimination**, in addition to broader problems with the local authorities, multiple (family) duties, poor access to justice, and a lack of education.

In general, **women owned businesses are indicated to face more constraints in growing their businesses**, especially outside of more typical female sectors such as services and retail, and this may be particularly challenging in LMICs. Firstly, they might be constrained by lack of access to credit, as

they receive less start-up capital, face greater barriers to equity financing. In LMICs, this may be particularly exacerbated by the persistence of discriminatory lending practices, access to collateral, and limited finance options for women, influencing women accessing the necessary capital to grow their enterprises. Secondly, from a social perspective, social norms and cultural expectations further influence business prospects and growth, both due to the perception to perceived to be low-growth oriented, gender roles and household duties allowing wome n the time and energy to dedicate to the business endeavour, and business networks. Family support for growing a business may also be lacking especially if perceived to compete with family men. Thirdly, the scope of local infrastructure including adequate and safe transportation, energy, and communication systems may pose challenges for female businesses looking to expand their reach especially outside of city hubs. Fourthly, the existence of government support for women-owned businesses, including inclusive legal frameworks, and targeted capacity-building programmes can influence successful growth and scaling.

Research questions for the OC programmes:
→ To what extent are existing tools for scaling strategy development already used by OC hubs? And tools for capability assessments such as SCALERS? What tools are most useful for OC entrepreneurs?
→ What are the key determinants of resilience in inclusive businesses while they scale? How can such businesses adapt to external shocks and changing economic conditions?
→ What innovative financing mechanisms and investment models are most suitable for scaling inclusive businesses in LMICs?
→ How can innovations in technology and business models be leveraged to overcome the challenges by inclusive businesses as they seek to scale?
→ What scaling strategies work best for entrepreneurs in the early start-up phase depending on sector and country? How can training programs support scaling?
→ How can entrepreneurship programmes and interventions better assist women in overcoming gender-specific barriers to scale?

Part III: Involving the supply chain during scaling

3.1 Understanding supply chain: challenges and opportunities?

The supply chain, and the business ecosystem, are paramount for a business because it **governs the flow of goods, services, information, and finances** throughout the entire operational process. A well-managed supply chain ensures the timely and cost-effective procurement of raw materials, efficient production, reliable distribution, and responsive customer service. It contributes directly to cost control, product quality, and meeting customer demand (Frohlich & Westbrook, 2001). Moreover, a robust supply chain helps mitigate risks, fosters sustainability, and provides valuable data for strategic decision-making. In essence, it is the backbone of a business, influencing its **competitiveness, resilience, and ability to adapt to evolving market dynamics**, making it an indispensable component of overall success.

Challenges and risks

Inclusive businesses operating in low- and middle-income countries often face supply chain challenges due to shortcomings in the economic and infrastructural landscape. One significant challenge is the lack of reliable and efficient transportation networks. For instance, in rural areas of many African countries, **poor road infrastructure** can lead to delays in the delivery of goods or services, hindering

an inclusive business' ability to reach its target beneficiaries (Gradl & Jenkins, 2011). Additionally, the **absence of standardized regulatory frameworks** can pose challenges in sourcing materials and complying with local regulations. For example, a social enterprise focused on providing clean energy solutions may encounter difficulties in navigating complex import/export procedures. Furthermore, **currency fluctuations and access to finance** can impact procurement and working capital, making it challenging for inclusive businesses to maintain stable supply chains.

It is key for any inclusive business to have a thorough understanding of their supply chain and the business ecosystem before scaling (Han & Shah, 2020). Analyzing their business ecosystem can expose significant risks for business operation. For example, a business that is highly depend on just one supplier for a critical raw material for their product, will increase its dependency during scaling, and might consider to diversify its input channels. An agricultural processer working with 100 small-holder farmers must carefully analyze its logistics to see how inputs can be managed during scaling. An energy supplier limited by feed-in tariff policy, might consider lobbying for change in local energy supply regulations first, before attempting to scale.

Appreciating change and emerging opportunities

During scaling, actors in the supply chain need to be able to adapt to the scaling strategy executed by the inclusive business. An inclusive business might need more raw materials as input during scaling, are their current suppliers able to deliver? Or does the inclusive business need to negotiate contracts with other suppliers? Executing some scaling strategies might require the involvement of new actors that were not part of the supply chain yet, for example when product diversification causes for completely new inputs to make new products, and new off-takers to sell the products to different customer groups. This requires negotiating new contracts or forging new partnerships. Therefore the business should not only understand its current supply chain and its weaknesses, but also how the supply chain might change during scaling. Business ecosystem actors such as finance institutes or NGOs might need to be involved to secure sufficient capital, or to assist in capacity building of informal actors in the supply chain.

Box 3: The risk of not understanding your supply chain before scaling:
The case of Nakumatt supermarket in Kenya

Nakumatt Holdings, once a retail powerhouse in East Africa, crumbled during their scaling efforts due to its profound misunderstanding of its supply chain. The company's demise can be traced back to several key issues. First, inventory management was a glaring problem for Nakumatt. They frequently had excessive stock of slow-moving or obsolete items, tying up capital and escalating storage costs. Simultaneously, they struggled to keep essential items in stock, leading to customer dissatisfaction as shelves often remained empty. Second, supplier relationships deteriorated due to Nakumatt's delayed payments. Suppliers grew wary, some even demanding upfront cash payments or halting deliveries, disrupting the supply chain further. Third, the company's supply chain was overly complex, involving numerous intermediaries and inefficient logistics, resulting in inflated transportation and distribution costs. This directly impacted profitability. Nakumatt's aggressive expansion across the region, was funded by accumulating significant debt, leaving minimal resources for vital supply chain improvements or adaptation to changing market dynamics. The consequences of this extended beyond finances. Trust eroded with suppliers and customers alike. Suppliers doubted Nakumatt's

ability to pay on time, and customers grew frustrated with inconsistent product availability and service quality.

Nakumatt Holdings' downfall can be attributed primarily to its inability to grasp the complexities of its supply chain, while simultaneously implementing an aggressive scaling strategy. Poor inventory management, payment issues with suppliers, a convoluted supply chain, financial burdens from debt, and resistance to market changes collectively drove the company to its demise. These missteps severed trust, tarnished its reputation, and ultimately led to Nakumatt's downfall in the East African retail sector.

3.2 Developing collaborative scaling strategies with key business ecosystem actors

Some researchers take involvement of the supply chain a step further and suggest that inclusive businesses should not only understand how their supply chain will impact their scaling, but **actively involve key actors in their ecosystem while developing scaling strategies** (e.g. Adner, 2016; Siebold, 2020; Han and Shah, 2020; Mlecnik et al., 2019; Derks et al., 2022). They argue that the willingness of supply chain actors to adapt their activities to a strategy that will work for the business ecosystem as a whole, will play an important role in the success of the business' scaling effort and often depends on individual actors' prospective benefits (Gradl & Jenkins, 2011). Thus, instead of accepting one's business ecosystem as given, inclusive businesses can play an active role in helping their ecosystem evolve faster and manage it more proactively to embrace or implement a certain scaling strategy and help ecosystem actors to adjust their roles accordingly.

To do this, Derks et al. (2022)[1] developed a **5-step framework**, based on various existing tools and methods, that guides inclusive businesses into how to develop a scaling strategy *with* key ecosystem actors, rather than developing strategies internally and only then engaging in alliances or partnerships. The framework consists of five steps to be executed by the IB, in collaboration with its key ecosystem actors: (1) ambition, (2) discovery, (3) strategy ideation, (4) adaptation and (5) evaluation. Scaling strategy tools generally follow a design cycle consisting of ambition setting (1), ideation (3) and strategy evaluation (5). Derks et al. (2022) add two key phases to develop impactful supply chain scaling strategies. First, discovery is inserted, before ideation. By conducting a thorough ecosystem analysis, focusing on interdependencies and value exchanges between actors as well as their resources and activities, participants expand their mental frame and ideate on strategies beyond individual growth towards ecosystem growth, leveraging strengths of other actors. Second, adaptation is added, between ideation and strategy evaluation. For each strategy, participants perform a new ecosystem analysis, enabling them to see how value exchange, activities and resources will change per actor and what new actors might be necessary to implement the strategy. This enables participants to evaluate the feasibility and attractiveness of each strategy more accurately.

Box 4: Example of the benefit of developing scaling strategies with the business ecosystem
The case of Yayasan Bumi Sasmaya and waste management in Bali, Indonesia

The framework of Derks et al. (2022) has been applied to over 10 cases. In this example we discuss the case of Yayasan Bumi Sasmaya (YBS) – a Balinese social enterprise concerned with setting up

[1] The workshop approach of Derks et al. (2022) can be found on: Workshop approach | Inclusive Collaboration (inclusivebusinessmodels.com)

community owned material management facilities – or waste transfer stations - in low-income communities in Bali. Via a set of 3 workshops including homework YBS developed a scaling strategy together with their key ecosystem partners Eco Mantra and the communities. In step 1 they jointly defined a clear ambition for scaling, and in step 2 they visualized their ecosystem, analyzed the needs and wants of their customers, and did a PESTLE analysis to understand the context they are operating in better. In step 3 all three actor generated scaling strategies. They all felt that the scaling strategy "*building a strong social media presence and an Instagram account that sells products from our recycled materials such as bracelets or bottles, including visual campaigns*" was the preferred strategy to scale. But when they visualized how this would change the supply chain and value network in step 4, they realized that executing this scaling strategy would require the involvement of at least three new actor groups (e.g. various manufacturers for the recycled products – which are not located on Bali, influencers, distribution channels – such as tourist shops). None of them had warm contacts with any such actors. They soon realized that their scaling strategies "*creating partnerships with hotel chains for effective waste collection*" and "*increase income from circular and carbon credits by focusing on amount of materials managed*" were far more feasible for them, since they had the right contacts here (step 5). Visualizing the ecosystem before brainstorming on scaling strategies (step 2) made sure they were not only considering what their individual organisations could do, but also what the ecosystem as a whole could do. Visualizing what the ecosystem would look like if a certain scaling strategy was executed (step 4) made sure that realistic and operationalizable scaling strategies were chosen.

Research questions for the OC programmes:

→ What are the best practices for building and maintaining effective partnerships with local organizations, governments, and communities when scaling social businesses in LMICs?
→ How can supply chain insights before and during scaling best be integrated in entrepreneurship programs?
→ How can social enterprises improve their access to markets, distribution networks, and supply chains, particularly in rural and underserved areas of LMICs?
→ How can we develop more comprehensive and accurate metrics to assess the social and ecological impact of scaling efforts in youth businesses? What are the long-term effects, and how can they be quantified effectively?
→ How can entrepreneurship programmes be set up with scale in mind?
→ How do institutional voids create opportunities and barriers for entrepreneurs during the start-up and scale-up phase?

Part IV: Role of the entrepreneurial ecosystem during scaling

In the previous section, we discussed scaling from the perspective of the individual business, its supply chain and its business ecosystem. We have seen that ecosystem actors, such as financial institutions and governments play an important role during scaling of an individual business by, for example, making funds available or adopting favorable regulations. Although such ecosystem actors highly influence the probability of success of an individual business' scaling efforts, most ecosystem actors are more concerned with scaling an entire subsector, rather than an individual business.

4.1 From scaling businesses to scaling sectors

Ecosystem actors such as governments, research institutes, donors and NGOs often focus on creating an enabling environment for businesses in certain sectors to scale. Sectors regarding basic service

delivery (e.g. water, waste, education, electricity, healthcare) are often identified by ecosystem actors as sectors that need to grow or that need undergo a transition towards sustainability. Instead of helping individual businesses scale, ecosystem actor play a role in creating a favourable environment for various types of business to grow within a certain subsector.

For example, in many African countries pollution of lakes, rivers, and oceans by plastic waste is an increasing problem. The **waste recycling sector** is in need of growth, however, due to the lack of a public framework for collection and high competition with virgin plastics, it is extremely difficult to start a profitable recycling business. There is not one type of business that needs to emerge, various small businesses along the supply chain are needed. For example waste collectors, buy back centers, recyclers and so on. Numerous startups across Africa have emerged to tackle the plastic waste problem innovatively. For example, companies like Wecyclers in Nigeria and Fact Octopus in Egypt have developed collection and recycling systems that incentivize individuals and communities to recycle plastic waste. Various ecosystem actors can play a role in helping the recycling sector to grow:

- **Investors and Impact Funds**: Impact investors and environmental funds have recognized the potential of plastic waste management initiatives in Africa. They provide essential funding to scale up recycling operations, develop new technologies, and expand collection networks.
- **Government and Regulatory Bodies**: Governments in several African countries have taken first steps to address plastic pollution. They have implemented bans on single-use plastics, imposed levies on plastic bags, and introduced policies that promote recycling and waste management. Other policy incentives that few have implemented so far include import exemptions on equipment, minimum content requirement of recycled plastic in products, extended producer responsibility regulations, and tax increase on imported virgin plastic products.
- **Non-Governmental Organizations (NGOs):** NGOs like the Plastic Pollution Coalition and WasteAid work in collaboration with local communities to raise awareness about plastic pollution and implement recycling programs. They provide training and resources to communities and organizations involved in waste management.
- **International Organizations**: Organizations like the United Nations Environment Programme (UNEP) provide technical assistance, funding, and expertise to support plastic waste management and recycling initiatives in Africa.

Another notable example of how ecosystem actors have helped scale a subsector in Africa is the growth of the **renewable energy industry**, particularly the expansion of solar power solutions. This has brought affordable and sustainable electricity to millions of people who were previously without access to reliable energy sources, which not only addresses energy poverty but also contributes to reducing greenhouse gas emissions and promoting environmental sustainability in the region. Here's how various actors have played a role in scaling this subsector:

- **Startups and Entrepreneurs**: Numerous African startups have emerged to develop innovative solar energy solutions. For instance, companies like M-KOPA in Kenya and Off Grid Electric in Tanzania have created affordable solar home systems that allow off-grid and underserved communities to access clean and sustainable electricity.

- **Investors and Venture Capitalists**: Impact investors and venture capitalists have shown interest in supporting sustainable energy startups. They provide crucial funding for research, development, and the scaling of solar power solutions across the continent.
- **Government and Regulatory Bodies**: Governments in several African countries have introduced policies and incentives to encourage the adoption of renewable energy sources like solar power. These include tax incentives, feed-in tariffs, and regulatory frameworks that make it easier for clean energy companies to operate.
- **Non-Governmental Organizations (NGOs)**: NGOs, such as the Solar Electric Light Fund (SELF) and Power Africa, collaborate with governments and local communities to promote the deployment of solar energy solutions. They often focus on reaching remote and underserved regions, thereby addressing energy poverty and promoting sustainability.
- **Academic and Research Institutions**: Research institutions partner with both startups and governments to conduct studies and develop innovative solar technologies tailored to Africa's unique needs and environmental conditions. These collaborations foster the development of cost-effective and efficient solar solutions.
- **International Development Agencies**: Organizations like the United Nations, EU delegation, embassies and the World Bank support sustainable energy initiatives in Africa. They provide funding, technical expertise, and policy guidance to accelerate the deployment of solar energy solutions.

These two examples demonstrate that collaboration among ecosystem actors is key to help scale subsectors in LMICs.

Research questions for the OC programmes:
→ How do government policies and regulations either enable or hinder the scaling of inclusive businesses in LMICs? What policy changes are needed to create a more favorable environment?
→ How can OC influence other ecosystem actors to support certain sectors more effectively?
→ Should entrepreneurship programmes focus on subsectors rather than be sector-agnostic? What would this mean for the program?

Part IV: Concluding remarks and recommendations

Scaling is essential for entrepreneurs concerned with creating social and/or ecological impact in low- and middle-income countries, since their survival often depends on reaching a certain scale due to low margins per unit of sale, and reach the development impact these entrepreneurs want to achieve. Scaling a business requires a clear ambition and scaling strategy. Various tools can help to develop a scaling strategy and to assess if a business is ready for scaling. **It is crucial for businesses to have a thorough understanding of the local market context, their supply chain, and its bottlenecks, before attempting to scale**. Business models need to be adapted to the local reality, and consumer purchasing power, and flexibility to respond to changing conditions. A business needs to assess carefully how the supply chain will change when a certain scaling strategy is executed, to see what this might mean for other supply chain actors. The business might even consider to develop scaling strategies *with* key supply chain actors, rather than developing and implementing a scaling strategy and only then engaging with actors to realize their scaling ambition. Digital technology represents a critical potential accelerator for business development.

Ecosystem actors can either enable or hinder an individual business' scaling pathway, (lack of) access to finance, (un)favorable regulations, and (absence of) incubation and acceleration programs can greatly influence the potential to scale. However, **most ecosystem actors are not directly involved with individual businesses, but might be more concerned with scaling an entire subsector.**

Some important *practical* gaps for OC emerge. First, we need to assess to what extent insights from existing literature (e.g. scaling strategy, supply chain challenges, ecosystem collaboration) as highlighted in this research line are already used by hubs to help businesses reach scale. What tools or methods are missing? How can we increase penetration of such topics within OC hubs? Second, it is worth to consider how OC can set up incubation or acceleration programmes with scale in mind. Other *research* gaps useful for OC and beyond emerge. First, more insights are needed in how business can adapt to external shocks and changing economic conditions (e.g climate change disasters, inflation) while scaling. Second, how can ecosystem actors such as ESOs and donors stimulate the creation of a supporting environment within a certain sector (e.g. orchestrating innovation)?

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