IMPACT EVALUATION REPORT

Business Ideas for Development

DRAFT 4: August 8th, 2022

SCIO ATHENA INFONOMICS Data Science for Development

PREFACE

This evaluation was carried by Scio Network GmbH & Co KG, and its subcontractor Athena Infonomics LLC between May 2021 and May 2022. The impact valuation was commissioned by the Programme Migration & Diaspora, a Programme of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ). In this document, we report the main findings of an impact evaluation of Business Ideas for Development, which is carried out by the Programme Migration and Diaspora and supports potential entrepreneurs in Germany (or those who returned recently) who have a migration background to set up a business in one of 11 partner countries. **The views expressed in this report are that of the authors and do not necessarily reflect the views of PMD.**

ACKNOWLEDGEMENT

We want to thank the various stakeholders, project participants, and support staff who generously gave their time to fill out the online survey and participate in the online interviews and Focus Group Discussion. We also thank GIZ PMD for their comments, feedback, and insights.

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Abbreviations

BID	Business Ideas for development
BMC	Business Model Canvas
PMD	Programme Migration & Diaspora
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
BMZ	Bundesministerium für wirtschaftliche Entwicklung und Zusammenarbeit
OLS	Ordinary Least Squares
OECD	Organisation for Economic Co-operation and Development
PMS	Propensity Score Matching
SD	Standard deviation
ToC	Theory of Change

EXECUTIVE SUMMARY

This evaluation report was written on behalf of the Global "Programme Migration & Diaspora" (PMD), which is commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The PMD implements the initiative "Business Ideas for Development" (BID), which supports people with a migration background living in Germany to set up a business in their country of origin (Cameroon, Colombia, Ghana, India, Morocco, Nigeria, Serbia, Tunisia,) and returned migrants (Indonesia, Vietnam). The focus of this evaluation is the BID support programme (both the transnational and alumni approach) for diaspora entrepreneurs between the period 2016 and 2021.

Using an ex-post quasi-experimental approach, this evaluation can make some limited claims about causality. This evaluation is based on a survey with 330 BID applicants of which 196 applicants were supported by BID (treatment group) and 134 were not (comparison group).[1] The data were analysed using descriptive and inferential statistics i.e., multivariate regression analysis[2], and Propensity Score Matching to account for any observable differences between the treatment and comparison groups.
The collected quantitative data was supplemented by qualitative data: three focus group discussions with 11 relevant BID coordinators, one key informant interview with a coaching institute in Germany, and 30 interviews with BID applicants (25 successful and 5 rejected).

Out of the 196 BID- supported business ideas, 130 (66%) created a business, compared to 77 (57%) of the 134 business ideas that were not supported by BID. Amongst those, 91 (70%) of BID-supported businesses are still active relative to 66% of non-BID supported businesses. The survival rate of established enterprises is 82% if comparing those who clearly answered yes or no to the question whether their business is still active. This survival rate (percentage of business still active after establishment) decreases as the persons who did not provide answer to this question is included in the calculation.
Comparing BID participants and those who applied but were not selected for programme support and who are similar in terms of age, education, country of origin, years spent in Germany, income before BID, year of application, and stage of their business idea, we find that the programme **positively impacts** the likelihood of aspiring entrepreneurs to start a business in their country of origin by **17.5%**, and a **higher likelihood of the business still being active by 28.2%.**
Amongst the 130 established BID-supported businesses, 50% generate an income for the business founder. Those 65 BID-supported business founders have in <u>total</u> generated an annual income of **EUR 413,962**. Additionally, BID supported businesses have contributed to the income generation of **739 people** (**42% women**), by **full-time employing 589 staff (83% of all staff), and 128 seasonal staff (17% of all staff).** On average, one established business create **regular job for 6 persons**. **At least 63% of the employees are paid a living wage (above the market standard).** BID participants also reached a **total of 305,483 customers, 133,462 other beneficiaries, and 907 suppliers.**

[1] Whilst the evaluation draws on a sample that is representative in size, it may not be representative in other characteristics such as income, business revenue, and profitability. This is because respondents from the 2019 and 2020 BID cohorts that may have been affected by COVID-19 are overrepresented in the sample. Furthermore, as no baseline data were collected at the start of the BID participant's journey, the evaluation relies on retrospective self-assessments that go as far back as 2016/17, for some participants. To compensate for any potential limitations in the quantitative data, all quantitative and qualitative findings are triangulated.
[2] A statistical method that allows examining the relationship between a single dependent variable and several independent variables. The research team used a logit and an OLS model.

BID-supported businesses have a **strong development-related focus, contributing to the nearly complete range of Sustainable Development Goals.** Yet, there seems to be a trade-off between revenue and profit, where non-BID supported businesses, which are generally more commercially focused seem to do better. Comparing BID participants and those who applied but were not selected for programme support, BID is associated with a lower likelihood of breaking-even by 2.3%. However, it generally takes businesses 3-5 years to generate a profit, and most BID-supported businesses in our sample are still quite young; with an average of 2.6 years.

Key Evaluation Findings based on OECD-DAC Evaluation Criteria

Relevance of BID for Starting and Running an Enterprise

The BID support programme is highly relevant to aspiring diaspora entrepreneurs and has a unique value in the market. This is evident from the fact that only a small number of non-selected BID applicants were able to secure the same or similar support services as provided to BID participants.

- **The majority of participants found the BID support very helpful for setting up (53%) and slightly less for running a business (34%).**
- Most aspiring entrepreneurs are at the ideation (41%) or development stage (37%) of their business idea when they apply to BID. Their main motivator for setting up a business is based on entrepreneurial drive rather than monetary reasons.
- The needs of BID applicants are predominately supported in the fields of finding/ understanding the market and the customers, connecting to local professional networks, business registration, seed funding, finding a suitable location/venue, hiring suitable employees, and acquiring intellectual property rights.
- BID caters to most of these needs (besides financing). BID participants received business coaching, support in developing and implementing a business plan, network activities, and market exploration support, grant support.
- However, participants wished for additional support (topics) regarding business coaching (61%), networking (51%), market exploration (33%, implementing (28%), and developing (27%) a business plan.

Effectiveness of BID for Starting and Running an Enterprise

BID is effective at teaching participants business skills and connecting them to entrepreneurial networks. When asked to rate their skills before and after BID, we find an average skills growth of + 3.2 point out of 10 points amongst participants.

- Most participants learned about developing a business plan (78%), formulating a business idea (72%), and setting up a business (56%).

Factors Support Business Start-Up and Performance

- Individuals who are further along with their business idea when applying to the BID, receive business coaching and have a large personal network of entrepreneurs are more likely to start a business.
- Business owners with a greater number of years in Germany, with a large personal network of entrepreneurs, and a higher start-up capital (an increase of start-up capital by 1% is associated with an increase of EUR 121.3 in turnover and EUR 25.8 in profit) are more likely to break even (where revenue covers at least all expenses).

Efficiency of BID for Starting and Running an Enterprise

BID is efficient based on our tentative cost-benefit estimates:

- BID-input costs (grant, and business-support in Germany and the country of origin) amount to around EUR 1,428,379.85. The self-estimate value (by founders) of all 130 created businesses including assets, on the other hand, amounts to EUR € 65,250,084. Taking 17.5% (the impact attributable to BID) of that self-estimated business value – EUR 11,418,764.7 – still far exceeds BID's input costs.

Impact of BID for Starting and Running an Enterprise

BID has a positive impact on its participants, leading to a higher likelihood of starting-up by **17.5%**, and a **higher likelihood of the business still being active by 27.7% which can be attributed to BID.** The 130 BID-supported businesses that were established have on average:

- Reached **2,166.5** customers and worked with 6.3 suppliers
- Benefited 1,**934.2** other beneficiaries (such as the wider community they work in), and **5.7** employees (of which nearly half who are women).

Sustainability of BID for Starting and Running an Enterprise

A fair share of the 130 created businesses is sustainable, yet some still struggle to find their long-term footing in the market due to them still being relatively young (2.6 years on average).

- After the end of the supporting phase from PMD, 18% of the established enterprises managed to secure further/other external funding sources with an average of EUR 39,955, whilst the remainder are yet to secure more financing for their business.
- The economic outlook for BID (but also non-BID) businesses looks promising, with 38% (26%) thinking that in the next 12 months, their revenue will increase to a large extent.

Learnings & Recommendations

This evaluation points to several learnings for BID to further enhance its impact. BID should consider:

- Providing focused and differentiated offerings to entrepreneurs who are at a) ideation stage, b) development stage and the c) deployment stage
- Further streamlining and the coaching services in Germany and the incubation and acceleration model in the country of origin to ensure consistency of support services
- Opening up the transnational approach to Indonesia and Vietnam and explore the alumni approach in some BID partner countries: e.g., Ghana, Cameroon, etc.
- Establishing a mentoring programme during the support in Germany (complementary to the P2P- Mentoring service through the local service providers in the different partner countries) which includes training modules around core business functions e.g., Customer-Relationship Management (CRM), Digital Marketing, and Inventory Management.
- Focusing even more on networking amongst participants, creating a cross-country BID alumni group[3], and promote alumni mentors, and invite successful businesses in the relevant sector to present and guide participants, especially female participants
- Providing more flexible grant support and link participants with follow-on support services in Germany and the country of origin

[3] BID is already in the process of supporting the creation of a "BID Community" to support cross-country mentoring and networking in addition to the P2P-Sessions.

CHAPTER 1

INTRODUCTION

***Picture 1*: A BID Alumni participant from Vietnam – Dr Nguyen Chau Nien.**

Dr Chau Nien, a BID Participant from the 2020 cohort, and previous PMD-supported Returning Expert and current lecturer at the Nong Lam University for Plant Genetics and Breeding founded the company "Biobest". The enterprise utilises bio predators (natural enemy and fungi) rather than chemicals for pests and diseases (P&D) in cassava production. This solution is innovative by addressing productivity issues whilst preserving the environment and mainly contributes to SDG 2- End hunger, achieve food security and improved nutrition and promote sustainable agriculture. His business's main customers are farmers, particularly smallholders in Vietnam, where cassava is a staple.

1.Introduction

The Programme Migration & Diaspora (PMD) supports partner countries in harnessing the positive effects of regular migration and diaspora engagement for sustainable development. On behalf of the German Federal Ministry for Economic Development and Cooperation (BMZ), the PMD is implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and operates in over 20 partner countries across the globe[4]. The programme is based on the principles of the German government's migration policy:

- supporting partner countries as they shape migration policy based on the Global Compact for Safe, Orderly and Regular Migration (GCM).
- informing individuals interested in migration about the opportunities and conditions for regular migration at an early stage.
- raising awareness about the risks of irregular migration and demonstrating alternatives.
- promoting investment, knowledge exchange and innovation in partner countries by supporting the development-oriented engagement of the diaspora in Germany.
- fostering circular migration by placing skilled workers with a migration history with employers active in development issues in countries of origin.

PMD covers five fields of action, which include (1) Development-oriented return, (2) Regular labour migration and mobility, (3) Social engagement by diasporas, (4) Financial and economic contribution of diasporas, and (5) Migration policy advice.

1.1. Purpose of the Evaluation

In the context of the growing need to demonstrate the results of the entire programme to BMZ and the public, the PMD Monitoring & Evaluation team cooperates with the fields of action to measure the results of the programme's activities. Any valuable lessons learned in conducting the evaluations are documented for continued learning and development of the programme. This report captures the findings of the evaluation of 'Business Ideas for Development' which falls under the field of action 4, financial and economic contribution of the diaspora.

1.2. An Overview of Business Ideas for Development

Under the field of action 4 - 'Financial and Economic Contribution of Diasporas', the PMD implements the initiative "Business Ideas for Development" (BID) (in German; Geschäftsideen für Entwicklung (GfE)). Business Ideas for Development which started in 2009/10 predates PMD. The latter started in June 2019. Box 1 delineates the impact hypothesis of the BID.

Box 1: Impact Hypothesis for BID

Selected business ideas (including gender-sensitive / gender transformative ideas) from diaspora members in Germany are supported through:

- individual coaching in Germany and in partner countries (including gender aspects),

[4] Including Albania, Cameroon, Colombia, Ecuador, Ethiopia, Georgia, Ghana, India, Indonesia, Jordan, Kenya, Kosovo, Morocco, Nepal, Nigeria, Palestinian territories, Peru, Senegal, Serbia, Tunisia, Ukraine, and Viet Nam.

- networking,
- mentoring
- and a PMD grant for start-up related preparation services

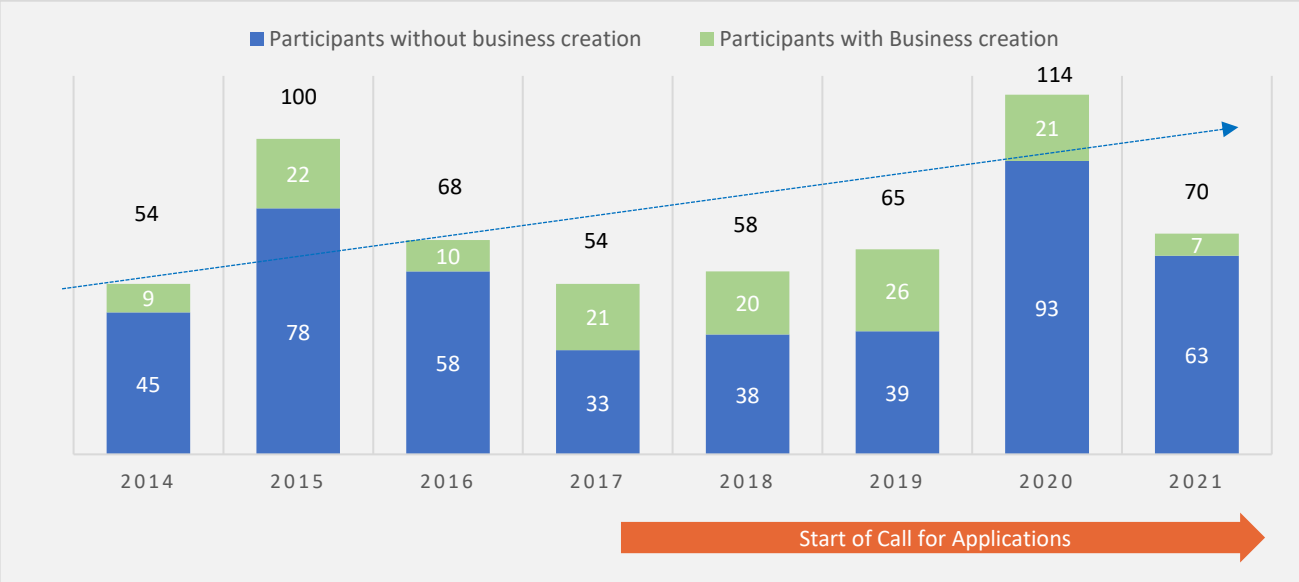
Through these BID support activities and the support of the network of the local PMD coordinator, if needed, BID participants are enabled with skills, contacts, and financial capacities to register a company in the partner country and start operations. Through the BID preparation and implementation support and the validated Business Model, the created businesses are more likely to maintain operations in the market for a longer period.

Source: PMD BID Results Model, 2022

BID supports business ideas, which are innovative and related to the Sustainable Development Goals (SDGs). These business ideas are developed by highly qualified people in Germany who have a migration background from one of the partner countries.

The design of the BID support has changed over the years. **A significant change took place in 2016 when the current selection process of "Calls for Applications" was started.** Before 2016, BID was organised in an open workshop format, which participants could attend without undergoing a selection process. No financial support was given to workshop participants. After the workshop, some participants chose to further receive support on starting a business and were then registered as BID participants (see figure 1). Since 2016, when the calls for applications started, BID has been receiving on average around 100-120 applications per call, and an average of 72 participants per year.

Figure 1: BID Participants by Year of Participation (2014*-2021)



**Since not all participants were counted during the open workshops, the chart only depicts the figures starting from 2014.*

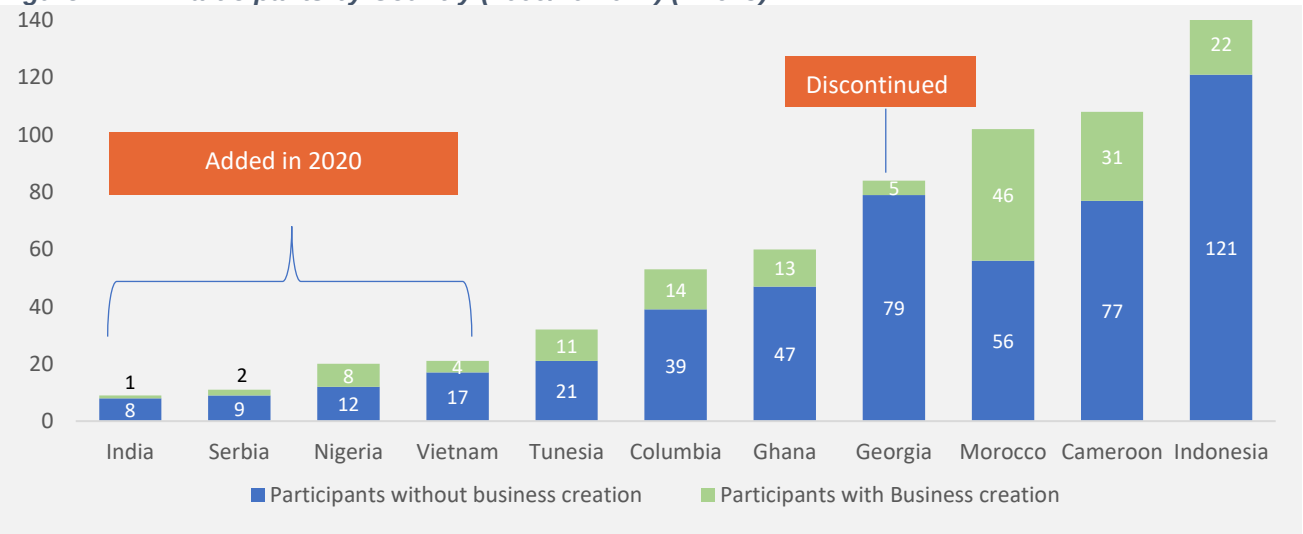
Since its initiation in 2009/10, the **BID has supported more than 865 business ideas.[5] Of the 643 BID participants for which detailed data is available** (as of May 2022), **157 created a business**

[5] This is an estimate by the BID.

(24%), whilst 486 (76%) did not.[6] **Most BID participants (73%) are male,** although the share of female participants has been increasing in recent years. Amongst the 157 known business founders, 77% are male and 23% are female.

BID was initiated with a pilot project in Morocco in 2009 and then expanded to Cameroon and Georgia (now discontinued) in 2013 and Ghana and Colombia in 2015. In 2015, BID also started the Alumni Approach in Indonesia, which was extended to Vietnam in 2020. Within the framework of MEET Africa, an EU-funded German-French cooperation project, BID was also extended to Tunisia in 2016. Lastly, in 2020, Serbia, Nigeria, and India (the latter only is focused on social entrepreneurship) were added to the BID partner countries. The majority name their country of origin come as Indonesia (22%), followed by Cameroon (17%) and Morocco (16%). These are also the top three countries where the highest number of BID-supported businesses has been created. Here, Morocco is leading, with 46 enterprises (29%), followed by Cameroon with 31 enterprises (20%).

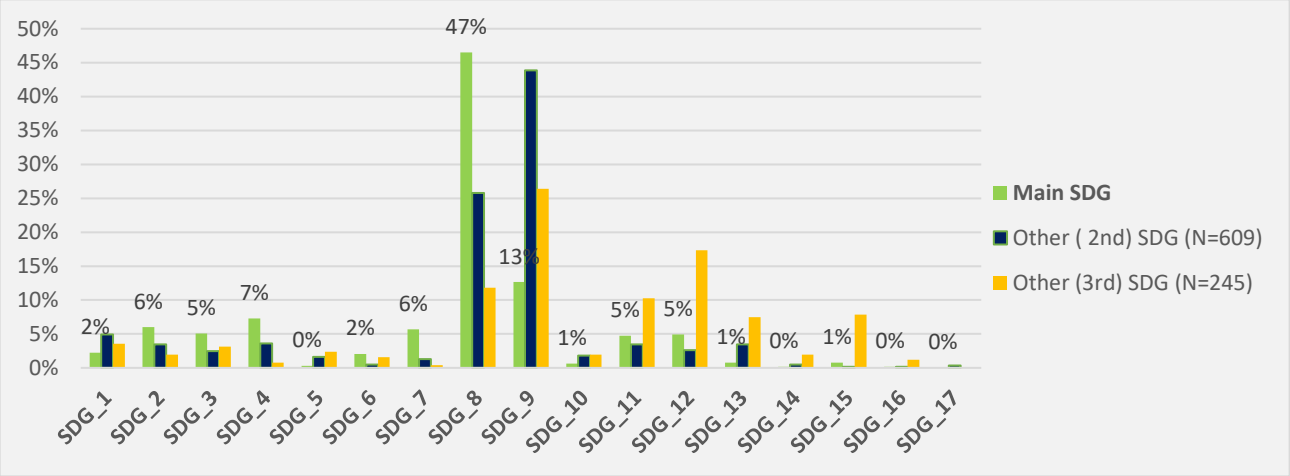
Figure 2: BID Participants by Country (2009/10-2021) (N=643)



Relevance to the Sustainable Development Goals (see picture 3) is one of the requirements for selection into BID. Many business ideas relate to more than just one SDG. As illustrated in figure 3, most of the BID-supported business ideas mainly contribute to SDG 8 - Economic Growth and Decent Work - (47%), and SDG 9 – Industry, Innovation, and Infrastructure- as the secondary SDG (26%). Whilst SDGs 8 and 9, are also touched upon by many businesses as the third SDG, other prominent SDGs are SDG 12– Responsible Production and Consumption (17%) -, and SDG 11 – Sustainable Cities and Communities (10%). An overview of the SDGs is provided in picture 1.

[6] It is important to note, however, that whilst BID captures data on participants, it does not always capture business creation systematically or accurately, as we will see later in the analysis.

Figure 3: BID-supported Business Ideas and their relevance to the SDGs



Please note: Multiple responses possible. The chart, however, only depicts the first three.

Picture 2: Sustainable Development Goals 2030. Source: United Nations

Lastly, BID can be broadly classified into two main support initiatives: the transnational (classic) approach, which makes up about 60% of supported business ideas, and the Alumni approach.

1.2.1. BID: Transnational Approach

Eligible participants must live in Germany and have a migration history from Cameroon, Colombia, Ghana, India[7], Morocco, Nigeria, Serbia, or Tunisia. Eligible participants must further already have a specific business idea relevant to the SDGs and want to set up their own business in their country of origin within the next few months.

[7] Only social enterprises.

Candidates can apply by completing an application form and submitting it together with a curriculum vitae and the relevant supporting documents via mail as part of the annual call for proposals[8]. Eligible applicants will be invited to a pitch event in Germany to present their business ideas in detail to a jury. The jury consists of experts in the field of development cooperation and business creation from Germany and the partner country.

Business ideas and applicants with the right suitability (e.g., SDG-relevant business idea) and entrepreneurial spirit will be supported. Whilst this may vary, participants are generally supported for 6-12 months before and during the start-up phase. All BID participants receive the following:

- Individual support and coaching in Germany and their country of origin
- Financial assistance of up to EUR 7,000 to pay for specific measures (including a market exploration trip) and services in the process of starting their business
- Support in finding investors and other helpful business contacts
- Networking with other business founders, business networks and business incubators

Technical Support

The process begins in Germany, where BID offers individual business coaching by a commissioned business start-up centre in Germany. Together with this service provider (Kompass GmbH), participants receive the following: advice the development or the validation of their business idea, an in-depth business plan, and coaching on the start-up process and developing a “roadmap" as a basis for the support process. In their country of origin, the respective PMD country coordinator facilitates the process on the ground. Since 2020 BID has also commissioned local incubators/ service providers in the country of origin to assist the participants with additional coaching, local knowledge and networks.

Financial Support

BID participants also receive up to EUR 7,000 to pay for specific measures and services related to setting up the new business, e.g., market and competition analyses, legal advice, technical advice, access to incubators and co-working spaces, travel to the founding country explore business opportunities and establish contacts. It should be noted though that BID does not provide start-up capital but supports future entrepreneurs in finding additional funding options, which may vary from country to country. In general, this can include loans, guarantees or state-backed funding schemes. Also, BID supports entrepreneurs in gaining an overview of their financial situation and making a realistic assessment of their capital requirements. Furthermore, BID assists them with approaching banks and potential investors – mainly by advising and assisting them in writing an effective business plan and a solid financing plan, but also by putting them in direct contact with the right people.

Post-Support Process

The focus of BID is currently on providing support prior to the creation of businesses. The support for businesses after the start-up phase is not formalized. However, all entrepreneurs are supported in starting their business, remain in the alumni network and continue to benefit from opportunities to attend trainings and networking events.

[8] Dates and deadlines are communicated on the website and through diaspora networks.

1.2.2. BID: Alumni Approach

The Alumni Approach was introduced as a pilot in Indonesia in 2015, because analyses showed that the majority of Indonesian graduates returned shortly after completing their studies and only gain relevant experience for founding a company there. As such, BID implements the Alumni Approach. In Indonesia and Vietnam, which supports people with a migration background who recently (up to three years ago) returned from Germany to their countries of origin to start a development-relevant business.

The Alumni Approach offers a slightly different package of support. Applicants attend a 5-day Bootcamp, where they attend training and workshops on entrepreneurship skills, including developing a business plan. At the end of the Bootcamp, the attendees pitch their business idea to the jury. **Five finalists** are then selected from the pool of Bootcamp attendees and receive individual mentoring/coaching and financial assistance of up to EUR 5,000 to pay for specific measures and services related to setting up the new business.

CHAPTER 2

Evaluation Methods

***Picture 3: Luisa Mejia* - a BID participant from Colombia.**

Luisa Mejia, who lives in Germany but is originally from Colombia, was a BID participant in the 2020 cohort. Next to being full-time employed in Germany, she has bought a small farm in Colombia, where she started producing organic coffee; 'Café Cielo'. Café Cielo is exported to Germany. The production of organic coffee is highly uncommon in her region of production in Colombia, where traditional planting methods have often been forgotten and the use of chemical fertilisers is widespread. She works closely together with local producers, co-learning together about organic production. Unlike many others in the market, she pays a ***living wage (above market standard).*** *Her enterprise mostly contributes to SDG 8 – Decent Work and Economic Growth- and SDG 12 – Responsible Production and Consumption.*

2. Evaluation Methods

Having provided an overview of Business Ideas for Development, we next delve into the evaluation methods.

2.1. Objectives of the Evaluation

This evaluation focuses on three main objectives:

1. **Documenting the Results of BID[9]:** This evaluation aims to give a comprehensive picture on established enterprises, by analysing survey data and providing insights and individual stories of selected BID participants.
2. **Assessing the Effectiveness and Impact of BID's Support[10]**: This evaluation aims to capture the success of BID participants in setting up and operating business relative to those who did not receive BID support. This evaluation further intends to capture significant social, economic, environmental, innovative, and political achievements of the enterprises and other non-intended structural changes on a societal, organisational, and individual level.
3. **Providing Learnings/Innovation for BID**: This evaluation aims to identify systematic factors that lead to the success and failure of setting up and running of enterprises. Based on the findings, evidence-based recommendations are formulated for the further development of BID.

2.2. Theory of Change

To test the assumed output, outcome and impact pathways for BID, the below chart depicts the theory of change (ToC) for Business Ideas for Development[11].

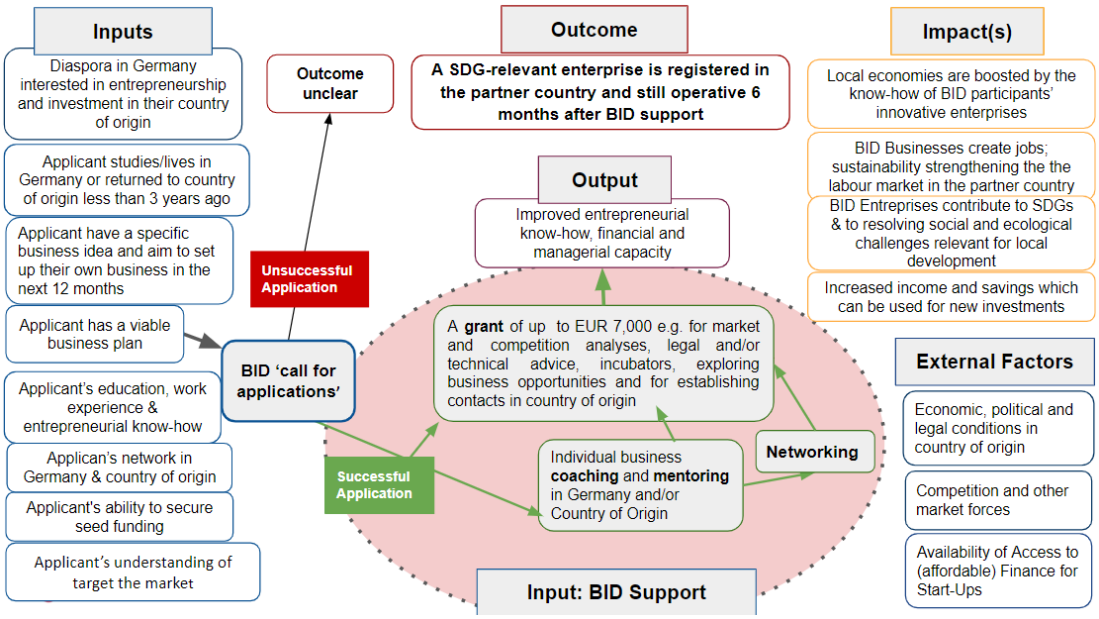


Figure 4: BID's Theory of Change

[9] While BID keeps detailed monitoring data on participants and receives information from the coaching providers and PMD country coordinators, it remains challenging to obtain a systematic overview of the created businesses (after the BID support period ended).
[10] Whilst evaluations and success stories of individual case studies of BID participants and their businesses have been conducted, no overarching impact evaluation of Business Ideas for Development has been carried out yet.
[11] Please note, to reflect the tested hypothesis for this evaluation this ToC was simplified and adjusted and only partially reflects the official ToC developed by GIZ

2.3. Evaluation Questions

The corresponding evaluation questions based on the OECD-DAC[12] criteria are depicted in Table 1.

Table 1:Overview of Evaluation Questions

DAC-Criteria	Evaluation Questions
Relevance	**Support from PMD** • What are the needs of the target group to set up and run a business? • What support did the BID -participants receive? How relevant was the PMD support for a) getting the business started and b) their performance?
Effectiveness	**Effectiveness of the PMD activities** • To what extent was PMD's financial and technical support effective in helping participants set up and run a business? How effective was this support compared to other contributions, including other training and debt financing? • What is the participant's knowledge growth after BID's training activities? **Overall Effectiveness** • What do the created businesses look like? • Which factors contribute to a successful start-up and operation of businesses? • How many people, directly and indirectly, benefited from the set-up of the business? Are there differences along the lines of gender?
Efficiency	**Cost-Benefit Efficiency** • What is the total amount of income added (employees, suppliers, etc.) and/or savings created (e.g., amongst customers) by the business? How does that compare with the cost of the intervention (made by PMD)?
Impact	**Overall Impact** • What would have been the situation had there been no BID support? • Are there any other positive non-intended side effects? • Are there any spill over and/or multiplication effects? In other locations/regions? **Relevance to SDGs** • How many jobs has the business created? How much additional income has the business created for the owner and the employees? • How has the BID affected the access to education, health, nutrition and other essential services for the BID founder, employees, and other beneficiaries?
Sustainability	**Sustainability of the created businesses** • What did happen after the PMD support ended? • Is the business institutionalized in the local system with resource contributions other than PMD? • What is the economic outlook for the business?
Learning	**Programmatic Learning** • What learning can be drawn concerning future programmatic design? • Is the program serving the right target groups? • What implementation obstacles are being encountered? **Success and Failure Factors** • How can BID further support those success factors (internal and external) that lead to enterprise creation? • What differences are there between sites (countries, regions within countries)?

[12] According to the GIZ evaluation policy, OECD DAC serves as guiding project evaluation criteria.

2.4. Methodology

To find an answer to the research objectives, test the theory of change of BID and answer the evaluation question, this evaluation employs a **Rigorous Impact Evaluation (RIE)**[13]. RIEs use a counterfactual (control or comparison group) to answer questions on the cause-and-effect of development projects. Specifically, we conduct a mixed-methods **ex-post quasi-experimental approach** since the intervention has already taken place, precluding randomisation.[14] To test the assumed output, outcome, and impact pathways for BID, we define the following treatment and compression arms:

Treatment	**T1:** BID applicants who received BID-support and started an enterprise.
	T2: BID applicants who received BID-support and did not start an enterprise.
Comparison	**C**: BID applicants who were rejected (did not receive support from BID). They may or may not have started an enterprise.

2.5. Data Collection

To ensure an accurate estimation of the impact of BID and gain insights into the impact pathways, we chose a mixed-methods design, combining quantitative and qualitative data collection. The data collection instruments were based on a literature review as one of the sources of information for the analytical framework (please see Annexure 1).

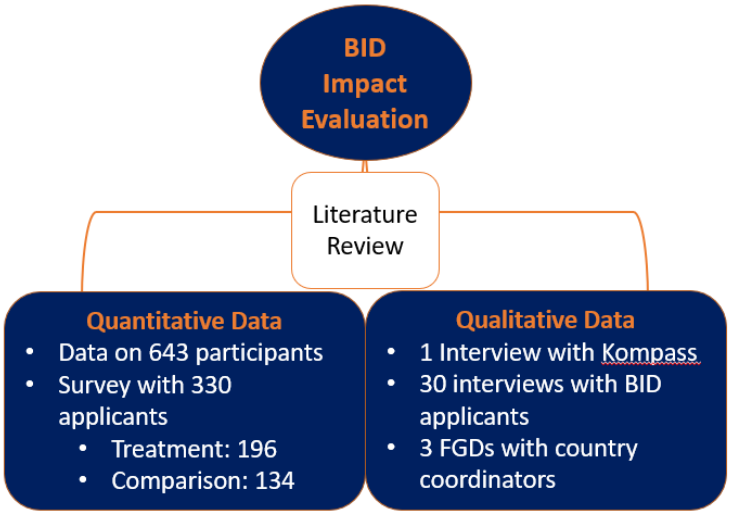


Figure 5: Data Collection & Methodology

As BID participants are in different countries and given the ongoing COVID-19 pandemic, both the quantitative and qualitative data was collected using an online platforms. For the online survey, which was available for 5 weeks, the evaluation team opted for SurveyMonkey as a) it allows to send the survey forms directly to the selected participants via email addresses, b) provides insights on the active and inactive email addresses, c) allows to download reports on the respondents and non-respondents, d) sends automatic reminders to non-respondents to fill out the survey, and it is GDPR[15] compliant. Figure 5 depicts an overview of the collected data.

[13] Specifically, RIE is the umbrella term for experimental- and quasi-experimental methods that use a random counterfactual (control or comparison group) to measure what would have happened to beneficiaries without the intervention. The gold standard of RIEs is an experimental study, a so-called Randomised Control Trial (aka Field Experiment), that randomly allocates the intervention to a treatment and control group that are on average equal on observable and unobservable characteristics.

[14] When randomisation is not possible, preferred quasi-experimental methods for reducing selection bias are (i) a Difference-in-Difference approach (which necessitates collecting at least baseline and endline data, which we can exclude as the annual intake of BID participants is too small for an RIE. Furthermore, the timeline for this evaluation did not allow for this as the BID support can take up to 2 months), (ii) a Regression discontinuity design (which is not suitable here as there is no clear cut off/threshold for assigning the intervention to our knowledge), (iii) an Instrumental Variable (IV) (which we tried, but finding a good IV is difficult), and/or (iv) propensity score analysis.

15 The General Data Protection Regulation (GDPR) is a regulation in EU law on data protection and privacy in the European Union and the European Economic Area.

2.5.1. Survey (Quantitative) Data

As depicted in Table 2, the total relevant population for this evaluation is 764. Given that BID's support offer changed after 2016, with the start of "calls for application", we restricted the target population to BID applicants who submitted their application after 2016. Based on this criterion, the evaluation team was provided with a database of 291 BID applicants (2016-2021) of which 71 had (allegedly[16]) created a business and a set of BID applications that had not been accepted into the project (N=686). After extracting the necessary and available data from BID's application pack and testing their email addresses, we were left with a population of 473 unsuccessful BID applicants.[17] The evaluation team based the target sample on two premises: (1) Power Calculations[18] and (2) Representativeness.[19]

Table 2: Quantitative Sample

Group	Population	Sample Target		Sample Achievement
		Representative	Power Calculations	
T1: BID participants who started a business	291	166	60	196
T2: BID participants who did not start a business			70	
C: BID applicants who were rejected and who may or may not have started a business	473	213	70	134
TOTAL SAMPLE (N)	**764**	**256**	**200**	**330**

Please note: The sample only corresponds to BID applicants between 2016-2021.

In total, **330** respondents (T1, T2, C) filled out the online survey. The overall attained sample of 330 respondents, is representative at a 95% confidence interval and a 4% margin of error. Whilst the sample of BID participants is representative at the same level, the sample of the comparison group is only representative at a 7% margin of error (rather than the standard 5%), or an 83% confidence interval (as opposed to the standard 95%).

Annexure 2 provides the results from a two-sample t-test, comparing the treatment and comparison respondents. We find no statistically difference between the two groups along baseline characteristics (at the time of application to BID) in terms of age, gender, education, income, years in Germany, work experience, and the stage of business idea. We do, however, find a statistically significant difference with regards to the year of application, and the country of origin of respondents. More respondents from the comparison group had applied in more recent years (e.g., 43% had applied in 2020 relative to 34% of the treatment group). Also, whilst the majority of treatment respondents come from Indonesia (35%), most comparison respondents come from Cameroon (31%). To ensure the

[16] It turned out that this information was not always accurate. We thus, only categorised T1 and T2 after the survey was completed.
[17] This heavy loss in population is primarily due to issues encountered when going through the BID application pack. Please see Annexure 3 for a list of issues encountered and a set of recommendations on how this could be improved.
[18] Power calculations ensure that the obtained sample has enough statistical power to draw a significant comparison between treatment and control groups. For this evaluation, we used a clustered-sampling strategy for three arms, and assume maximum variability (p=0.5), 95% level of confidence, and 80% power, mean effect size of 0.25, the standard deviation of 0.7 and 0.5 respectively, and an intra-cluster Correlation Coefficient (ICC) (rho) of 0.5. Based on these power calculations, we required a minimum sample of 60 for T1 (the base group to which the other groups are matched) and 70 respectively for T2 and C. This also includes a potential loss of 20% due to matching (PSM).
[19] For a representative sample, we assume a 5% Margin of Error, a 95% Confidence Interval, and a 50% response distribution.

comparability between the treatment and comparison group, and to reduce potential selection bias[20], since the treatment and comparison groups are not chosen randomly before the start of the intervention, we statistically match (**Propensity Score Matching** (PSM)) the treatment and comparison group when estimating the impact of BID (treatment), we statistically match the treatment and comparison group for the impact analysis along a set of baseline covariates in chapter 4.4.

2.5.2. Qualitative Data

In addition to the online survey, the evaluation team collected qualitative insights to understand impact pathways and identify key influencing factors. We did this through 1 interview with the service provider in Germany, Kompass, to gain insights into the training services provided to BID participants, 3 Focus Group Discussions (FGD) with the PMD country coordinators (3-4 per FGD) overseeing BID activities to gain insights into country-specific success factors and programmatic lessons-learned, and interviews with 30 respondents (treatment & comparison) to gain insights into success factors and learnings for the BID. For the latter, we used three different sampling strategies:

- **Similar Case Design:** We selected 20 treatment respondents (who received BID support). Always in pairs that are as similar as possible in terms of country of: a) origin, b) the year of application to BID, c) their rating on how advanced their business idea was at the time of applying to BID, d) their rating on how easy/difficult they found it to start a business. However, the outcome would be different within each pair, with one having created a business and the other one not. The idea was to determine which factors other than BID support drive the success of starting up a business and derive learnings for the BID.
- **Critical Case Design:** To determine which factors drive the starting up of a business and derive learnings for the BID, we selected 5 cases (3 treatments and 2 comparisons) that had a low rating on how advanced their business idea was at the time of applying to BID, and a high rating on how difficult they found it to start a business, but nonetheless created a business.
- **Homogenous Sampling:** We selected 5 “top performers” (3 treatments and 2 comparisons) judging from their annual revenue, market share, tax status, export status and business sector. This sampling strategy is designed to identify factors which drive the success of starting up a business and derive learnings for the BID.

Table 3: ***Qualitative Sample***

Target Group	Kompass	BID Applicants/ Participants	PMD Country Coordinators
Number	1	30 (25 T1/T2 & 5 C)	3 FGDs (with 10 staff)
When	Before other interviews	2 weeks after the survey started	After completion of the survey
Mode	Virtual interview	Virtual interviews	Virtual FGD
Duration	1 h	1 h	1.5 hrs

[20] Selection bias constitutes any statistically observable difference between the treatment and comparison groups (e.g., selected BID participants might be further advanced in their business plan and are therefore selected into the BID programme) which would bias the evaluation results.

2.6. Data Cleaning and Analysis

As the data was collecting using SurveyMonkey, which does not allow for data quality checks during the survey (e.g., only those who created a business can fill out the questions pertinent to business performance), the data underwent several rounds of data cleaning and transformation (see Annex 3). The data were analysed using descriptive and inferential statistics i.e., multivariate regression analysis[21], and Propensity Score Matching.[22] The clean data was analysed using Stata16. Furthermore, as SurveyMonkey automatically allows respondents to skip questions, the data suffers from a large share of respondents (up to 30%) who did not provide any information on certain questions. Especially those questions pertinent to their business. Where possible we fill in the missing data based on other available data (for instance we assume a business is breaking even if the answer to the question is missing but the business reports a profit). Where missing data persists, we follow the standard procedure of reporting the tabulations including the missing values as basing the analysis only on those respondents who provided an answer would strongly skew the results. To reduce the risk of outlier's bias, the numeric variables were winsorized at the 1st and 99th percentile.

2.7. Limitations

In the absence of randomisation of the treatment, or ex-ante ex-post data for both treatment and comparison groups, selection bias might still confound the results of this study. As such, this evaluation mitigates selection bias, to the extent possible, by applying Propensity Score Matching. Nonetheless, it is difficult to verify that all confounding variables that may influence the outcomes have been accounted for without randomisation. If unobservable characteristics exist between the treated and untreated respondents, however, PSM will provide biased estimates. Furthermore, as no baseline data on the income, knowledge, stage of the business idea, etc., was collected at the start of the BID participant's journey (something we recommend for the future), this evaluation must rely on retrospective self-assessments.[23] For some participants, their application goes as far back as 2016/17. It is thus likely that they do not remember all details. Furthermore, whilst we attained a sample that is representative of the entire population in size, it may not be representative in other characteristics such as income, business revenue and profitability. This is because an over-representative number of respondents in our sample come from the 2019 and 2020 BID cohorts that may have been primarily affected by COVID-19. To compensate for possible weaknesses in the collected data, we cross-validated and triangulated the quantitative and qualitative findings.

[21] A statistical method that allows examining the relationship between a single dependent variable and several independent variables. The research team used a logit and an OLS model.

[22] To ensure comparability of results (albeit the groups were similar in most characteristics other than year f application and country of origin), the research team used Propensity Score Matching (PSM) to isolate the effect of the treatment (BID support) from household characteristics that would have existed at baseline (the time of application to BID). PSM is a statistical matching technique that attempts to estimate the effect of a treatment by accounting for the covariates that predict receiving the treatment.

[23] Retrospective self-assessment may come with inherent biases, as it relies on people's memories, which may be flawed. Rosenman et al (2011).

CHAPTER 3

Evaluation Results

Picture 4: Cornelius Swiyanto -A BID alumni participant from Indonesia.

Cornelius Swiyanto was a BID Alumni participant in the 2019 cohort. He had lived in Germany for over a decade where he studied renewable energy. He started a waste management composting company, as he saw the need to utilise municipal waste for productive use in the agriculture sector. Specifically, he makes chicken feed made from larvae, by converting organic municipal waste using the black soldier fly (BSF). In this way, he sells chicken feed at reduced costs to farmers and reduces organic municipal waste. His enterprise, which is of innovative cross-cutting nature, contributes to SDG 12- Responsible Production and Consumption -, SDG 2 – Zero Hunger- and SDG 13 – Climate Action, and SDG 11- Sustainable Cities and Communities.

Evaluation Results

In the following chapter, we describe the evaluation results following the OECD-DAC criteria: (1) Relevance, (2) Effectiveness, (3) Efficiency, (4) Impact, (5) Sustainability, (6) Learning.

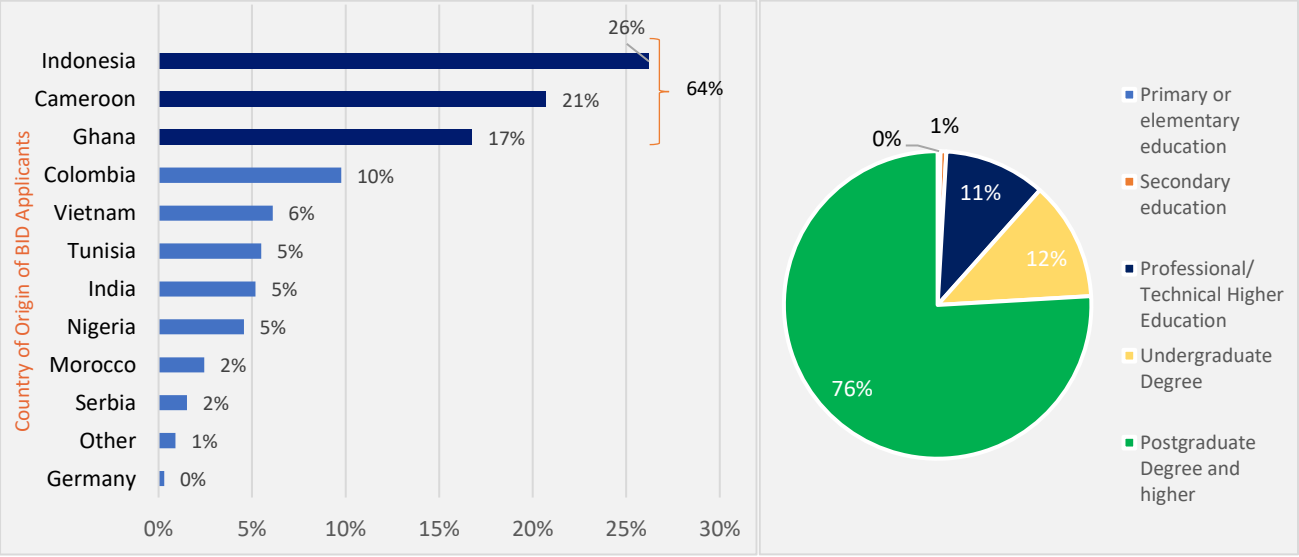
3.1. Relevance

3.1.1. Relevance of Business Ideas for Development for Applicants

Who Applies to BID?

This analysis is based on the sample of 330 BID (irrespective of whether they were accepted by BID or not) who had filled out the online survey. Nearly all (97%) of applicants have lived in Germany (the remainder lived in other European countries). The average applicant in our sample has lived in Germany for 8.7 years, with the majority (64%) having their country of origin in Indonesia (26%), Cameroon (21%), and Ghana (17%). Furthermore, the average BID applicant is male (75%), middle-aged, - the average applicant is 38 years old-, and well educated. Nearly 88% of BID applicants are university-educated, with 76% having a postgraduate degree or higher. Furthermore, nearly 90% of BID applicants went to school or studied abroad, of which nearly 70% in Germany. Most (51%) BID applicants are full-time employed, whilst nearly 44% have more than one occupation. Lastly, BID applicants have on average 4.2 years of experience in the relevant sector of their business idea.

Figure 6.A & B: Socio-Demographics of BID Applicants (N=328):
A. Country of Origin (left) & B. Highest Level of Education Completed (right)

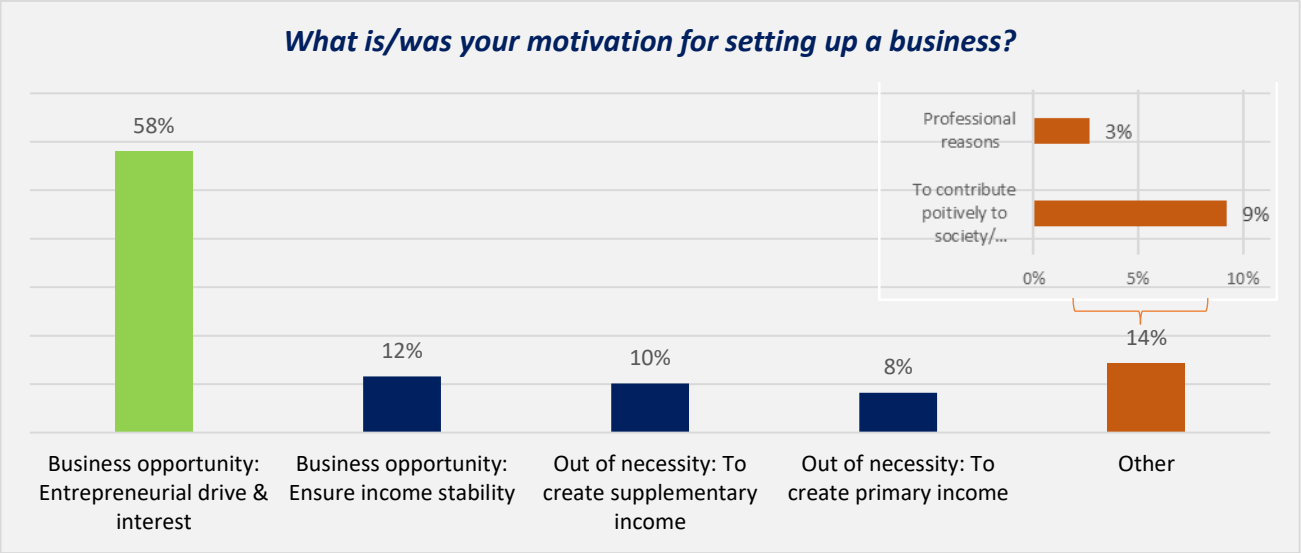


What is BID's Applicants' Motivation for Wanting to Set Up a Business?

Asking BID applicants why they wanted to set up a business, it becomes clear that they are mostly driven by entrepreneurial opportunities rather than necessity. Figure 7 illustrates that 56% of BID applicants were motivated by an entrepreneurial interest and drive, and only 8% by the necessity to create primary income. This contrasts with entrepreneurs in developing countries who often start a business due to a lack of job opportunities rather than entrepreneurial choice (Duflo and Banerjee,

2011). Amongst those 14% who responded "other", most are interested in contributing positively to the society and/or environment in their country of origin (9%) – e.g. *"To alleviate the challenges of plastic waste in Nigeria"; "To help create jobs and support the clean energy transition in Colombia"; "To ensure medical services in a small village (ca. 30,000 inhabitants) in Ghana". The remaining 3% mostly quote* professional reasons– e.g. *"To apply what I have studied", "To grow professionally", and "To work in my country of origin".* Box 2 provides a more detailed example.

Figure 7: BID Applicants' Motivation for Wanting to Set Up a Business (N=330)



Box 2: Example of BID Applicants Motivation to Contribute to the Betterment of Society

Picture 5: Mr Thien Duc Le

Mr Le Thien Duc completed his bachelor and master's in forestry from the University of Vietnam. In 2010, he received a scholarship from DAAD to undertake a PhD at the Technical University of Dresden and wrote his thesis on "strengths and weaknesses of tropical forest management. An analysis based on two case studies of Forestry Companies in the Central Highlands of Vietnam." After completing a post-doc at the same university in Germany, he decided to return to Vietnam in 2016. Le then worked in the field of conservation and forestry with several NGOs (Fauna Flora International, Tropical Forest Trust, WWF, etc). **In 2020, he applied to BID with the goal of using his professional and academic knowledge in forestry for the betterment of Vietnam, after noticing a gap in the market.** Le knew about PMD, such as the Returning Expert Programme through DAAD. With the help of BID, Le founded a consulting company - Clever Forestry Consultancy (CFC) in 2021. His clients are International NGOs, the Vietnamese Government, forestry and wood-related processing companies, etc. His work and business related

to the Vietnamese National Forestry Strategy Plan (2021 – 2050). Amongst others, he works on wildlife (i.e., pangolin) protection. As such, his business directly contributes to **SDG 15 – Life on Land.** He also contributes to **SDG 1 – No Poverty.** For instance, his business supports local communities earning an income from acacia trees by providing them with NFC (Natural Food Certifiers), connecting them to buyers and international markets.

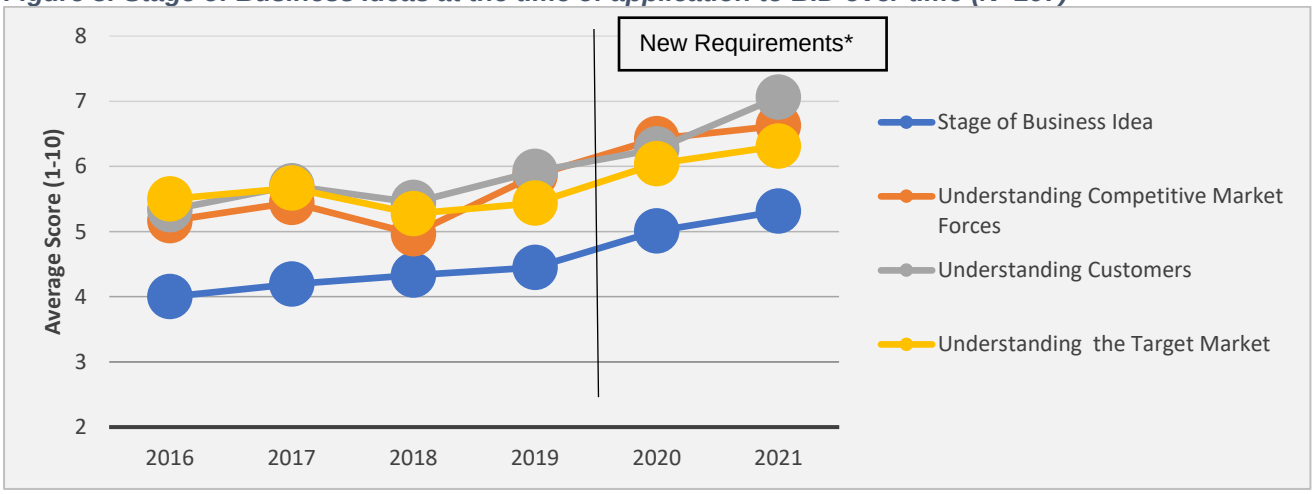
That interest and opportunities drive BID applicants is further corroborated by their income at the time of their application. Only 7% of BID participants reported zero income at the time of their application, whilst 15% of BID applicants report an annual income above the average salary in Germany of EUR 48,000.[24] On average BID applicants earned EUR 19,754[25] per year.

How Advanced are Applicants in Developing their Business at the Time of Application?

Also, as developing a business idea takes time, around 15% of our sample applied for BID more than once (with one person applying four times). Many interview participants stated that *"the BID application was super helpful for structuring and developing the business idea*" (Male BID Participant from Cameroon), as it forced them to think more about their business idea and put it on paper. For those who were invited, the pitch-day in Frankfurt was also instrumental in "finding the right words to describe the business idea to a lay-audience".

In this section, we, therefore, look at how advanced applicants were in developing their business at the time of applying to BID. **It is important to note that since 2020/21 BID focuses on more mature business ideas which are ready to be deployed and already have a business plan.** This also becomes evident in Figure 8 which depicts an increasing year-wise average score (measured from 1 -10, where 1 is the least advanced and 10 the most advanced) of *(1)* the stage of the business idea, understanding of *(2)* competitive market forces, *(3)* potential clients, and *(4)* the target market at the time *of* applying to BID.

Figure 8: Stage of Business Ideas at the time of application to BID over time (N=297)

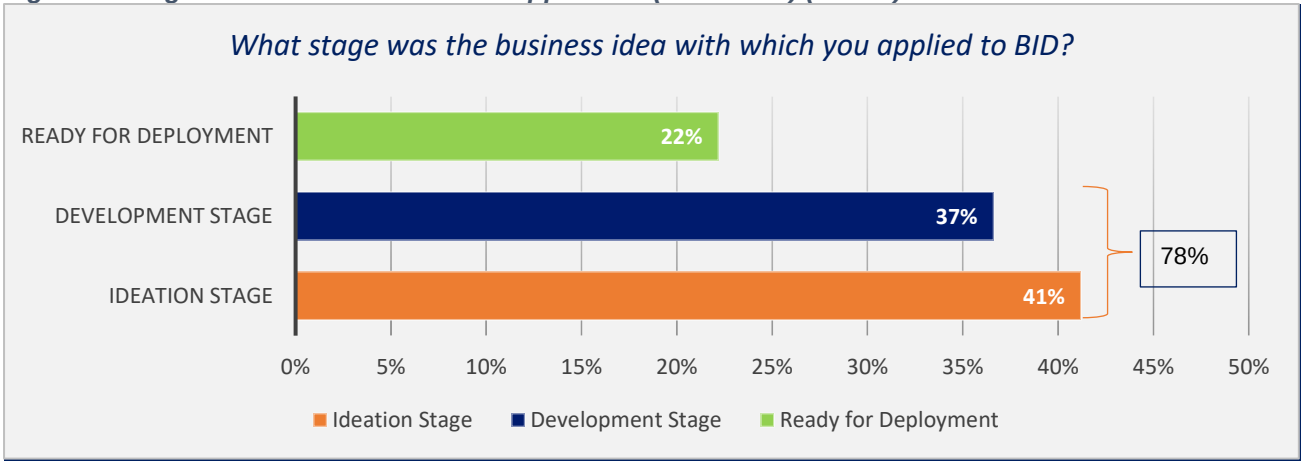


** Since 2020/21 BID focuses on more mature business ideas which are ready to be deployed and already have a business plan.*

[24] OECD (2022), Average wages (indicator). doi: 10.1787/cc3e1387-en (Accessed on 01 March 2022)
[25] Standard deviation (SD) EUR 27,487 indicates a large dispersion from the mean, ranging from EUR 0 (1st percentile) to EUR 120,000 at the 99th percentile. The data was winsorized at the 1st and 99th percentile to reduce outliers.

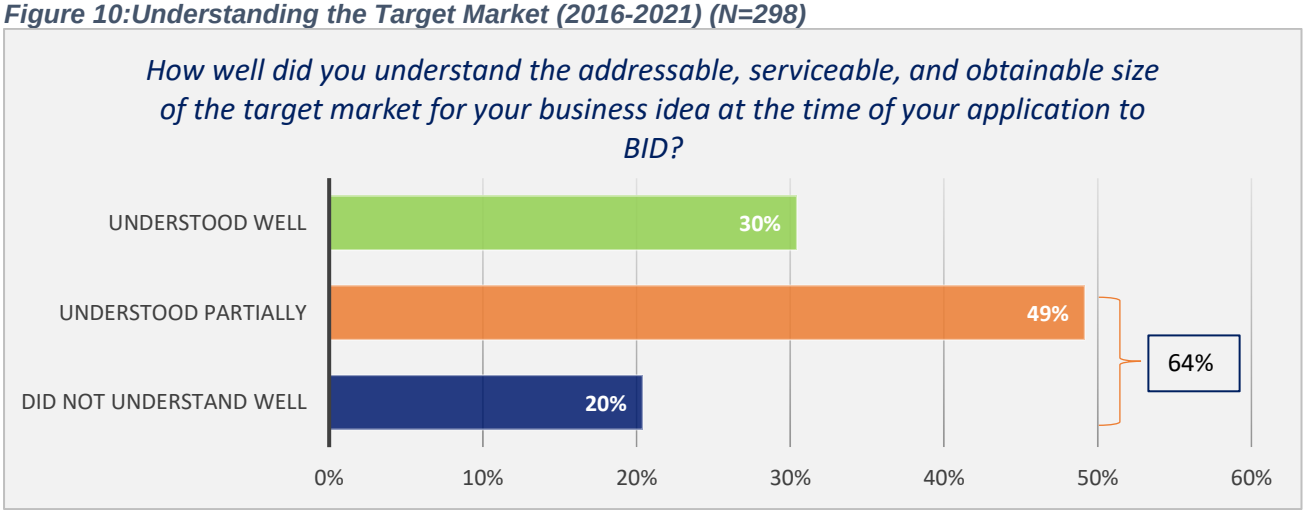
Whilst accepting only business ideas that are ready for deployment may lead to a higher success rate of starting-up, **the decision to only support BID applicants who already have a business plan does not necessarily fit the needs of BID applicants.** As evident from Figure 9, only 22% of the 284 BID applicants in our sample deem their business idea ready for deployment at the time of applying to BID. The majority of BID applicants' business idea (78%) can be grouped into two camps: 1) the ideation stage (41%), meaning they merely have a business idea, and 2) the development stage (37%), meaning they have a business idea but have not yet developed a plan, nor have they tested their service or product. Similarly, as shown in figures 10-12, the majority of BID applicants did not yet understand well their target market (64%), the competitive market forces (64%), and their potential customers (68%). All of these are, however, **prerequisites for a successful business plan and market entry strategy.**

Figure 9: Stage of Business Idea of BID Applicants (2016-2021) (N=284)



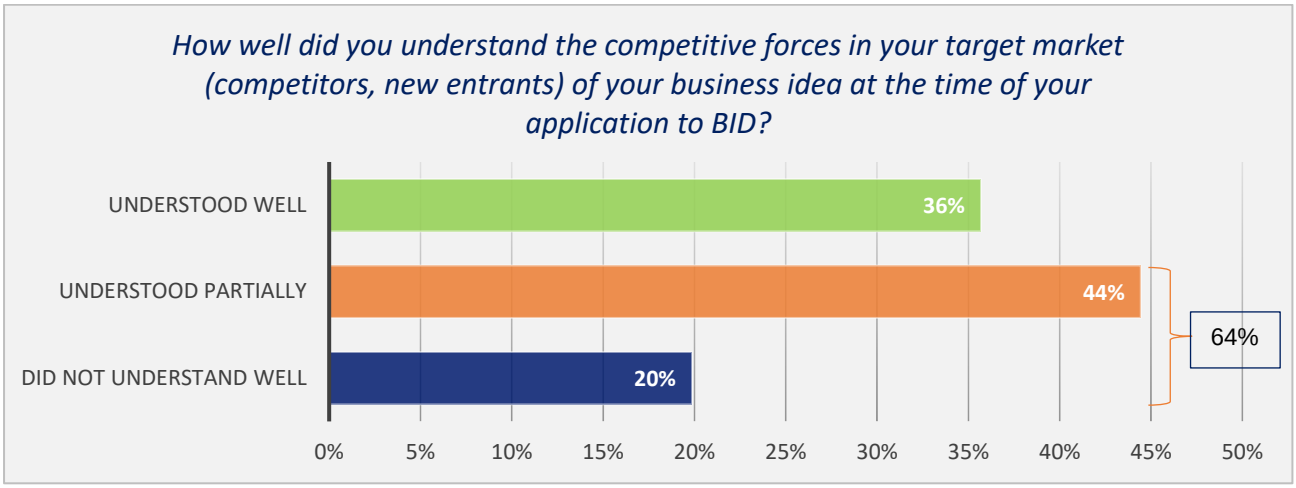
Please note: The scale asked was from 1 at the ideation stage to 10, ready for deployment. We grouped <4 as ideation, 4-7 as the development stage, and >8 as ready for deployment. The average score is 4.8.

Figure 10:Understanding the Target Market (2016-2021) (N=298)



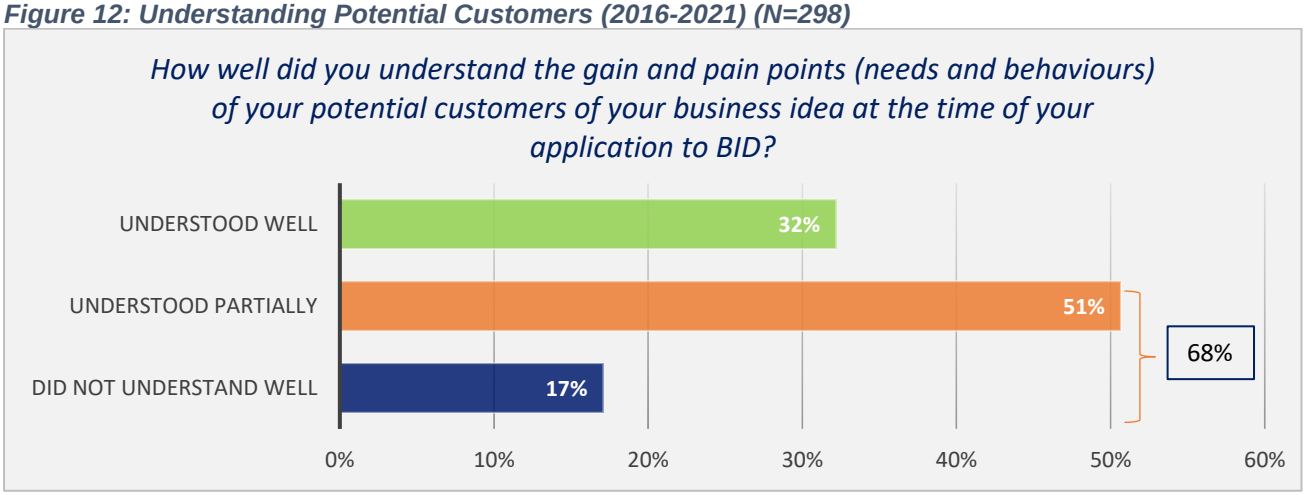
Please note: The scale asked is from 1, very low to 10, and very high. We grouped <4 as did not understand well, 4-7 as understood partially, and >8 as understood well. The average score is 5.9

Figure 11: Understanding of Competitive Forces (2016-2021) (N=297)



Please note: The scale asked was from 1, very low to 10, and very high. We grouped <4 as did not understand well, 4-7 as understood partially, and >8 as understood well. The average score is 6.09.

Figure 12: Understanding Potential Customers (2016-2021) (N=298)



Please note: The scale asked is from 1, very low to 10, and very high. We grouped <4 as did not understand well, 4-7 as understood partially, and >8 as understood well. The average score is 6.10

PMD country coordinator in charge of supporting BID mentioned the importance for entrepreneurs to understand the market and the customers in their country of origin. BID applicants/participants are not always well versed with the market and customers in their home country as they have been in Germany for long (or have been away for a few years in the case of the Alumni approach). Therefore, BID offers market exploration support by local incubators.

Throughout interviews, most applicants mentioned the need to support future entrepreneurs with services that are tailored in accordance with their stage of business development. Figures 9-12, therefore, show that BID applicants are very diverse and at **different stages of business development when they seek support from the BID. As such,** one BID participant stated that *"I was glad that for my cohort only a business idea was needed and not a business plan, as I would have found it difficult to develop a business plan on my own*" (Female BID Participant from Colombia). Box 3 provides insights from BID applicants and the stage of their business idea at the time of application.

Box 3: Examples of Business Ideas

Business Idea at the Ideation Stage: A BID Alumni participant from Indonesia took part in the one-week workshop in 2019 but was not selected as one of the top five finalists who receive further training. He applied to BID with a mere business idea and said he did not yet understand the market, potential customers, nor how to set up a business. His business idea is to provide equipment to recycle plastic into fuel, as he noticed a lot of plastic waste near the coast, which is affecting the environment and communities. As he did not have any business background, he described the one-week training as very helpful for developing basic business knowledge, for understanding the importance of market- and competitor research, and for understanding and determining potential buyers. He did not receive business coaching nor a grant from BID, since he was not selected as a finalist, but received some support from the German alumni community in identifying a potential buyer. The BID workshop nudged him into developing his product and to eventually enter the market. As of now, he has started developing a prototype machine but only thinks he will be able to fully start the business in 2025. **He recommends offering BID to ten finalists and not just five and to offer business support to those alumni who have already started a business.**

Business Idea at the Development Stage: A BID participant from Colombia, did not have a concrete business plan but merely had a business idea she had developed for some time when she applied to BID in 2019. Her business idea was to a design studio (website design and content) in Germany that connects Colombian artistic talents with those in Germany. She knew it was a good business idea and understood the gain and pain points of her customers, her competition, and the market quite well because of her work experience in the start-up scene in Leipzig. However, she says she lacked a business mindset and an understanding of the needs and barriers her customers are encountering. During BID, she learned a lot in terms of understanding customers because often their perceived needs and actual needs are quite different. During BID she got to concretise her business idea and tailor it more towards the market and customer needs. She has already started offering some business services to clients but has not yet officially started her business as she is still developing it. **She recommends for the BID to include more on HR management, taxation, and offer support to two groups: those with and without a business plan.**

Business Idea Ready for Deployment: At the time of the application in 2019, a BID participant from Morocco already had another company in Germany. His business idea, to start an IT company in Morocco was already well defined as it was in the same sector as his existing company. The most difficult thing for him was to understand the Moroccan market as he was a bit disconnected from Morocco. In Morocco, networking to build trust with customers is key before starting a project; as such he stated that his main issue was that he had no contacts in Morocco. He has since launched his business, which is still active. **He recommends BID include more on marketing, finding customers, general networking, and generating a link to other support programmes.**

What are the Needs of the Target Group for Setting up and Running a Business?

In this section, we investigate the need of BID applicants by investigating the major obstacles they encounter when trying to set up and run a business. Figure 13 lists the World Bank's Ease of Doing

Business indicators[26]. BID applicants were asked to select the indicators relevant to them (Figure 13. A) and then rate the respective indicator (Figure 13. B) on a scale from 1 (very easy) to 10 (very difficult).

Figure 13 A&B: Factors relevant to Setting up & Running a Business (N=330)

Figure 13.A: Share of Respondents who selected the Ease of Doing Business Indicator as Relevant to them

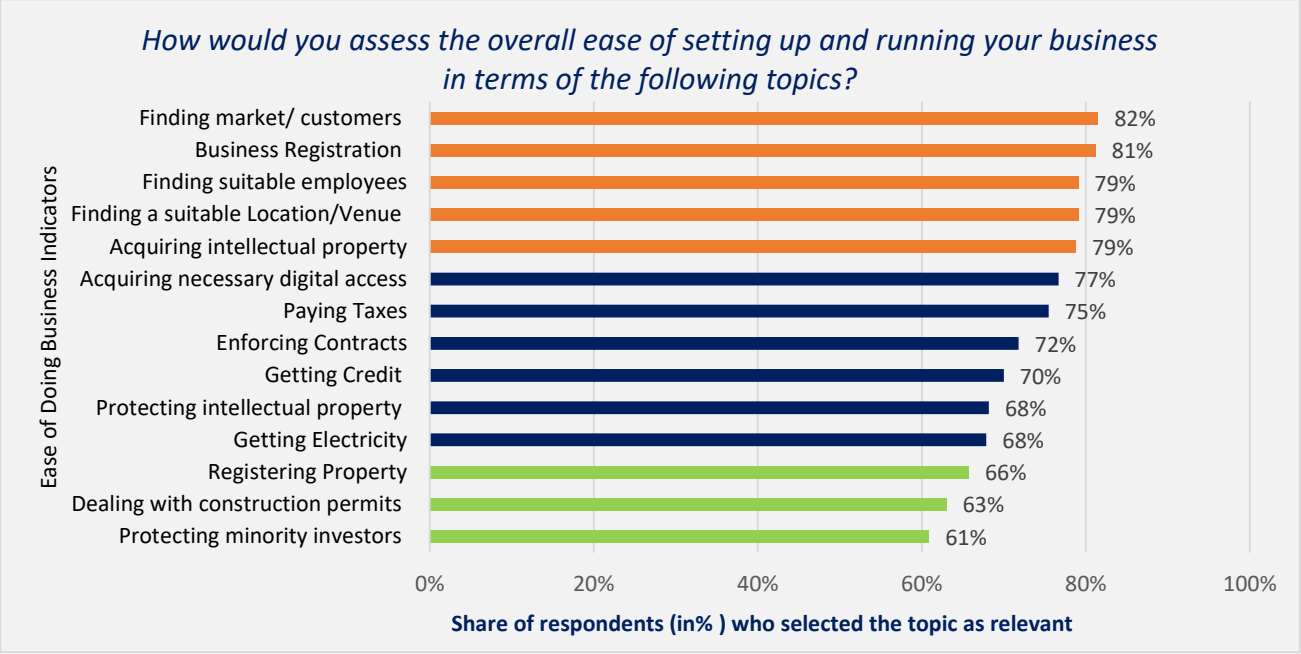
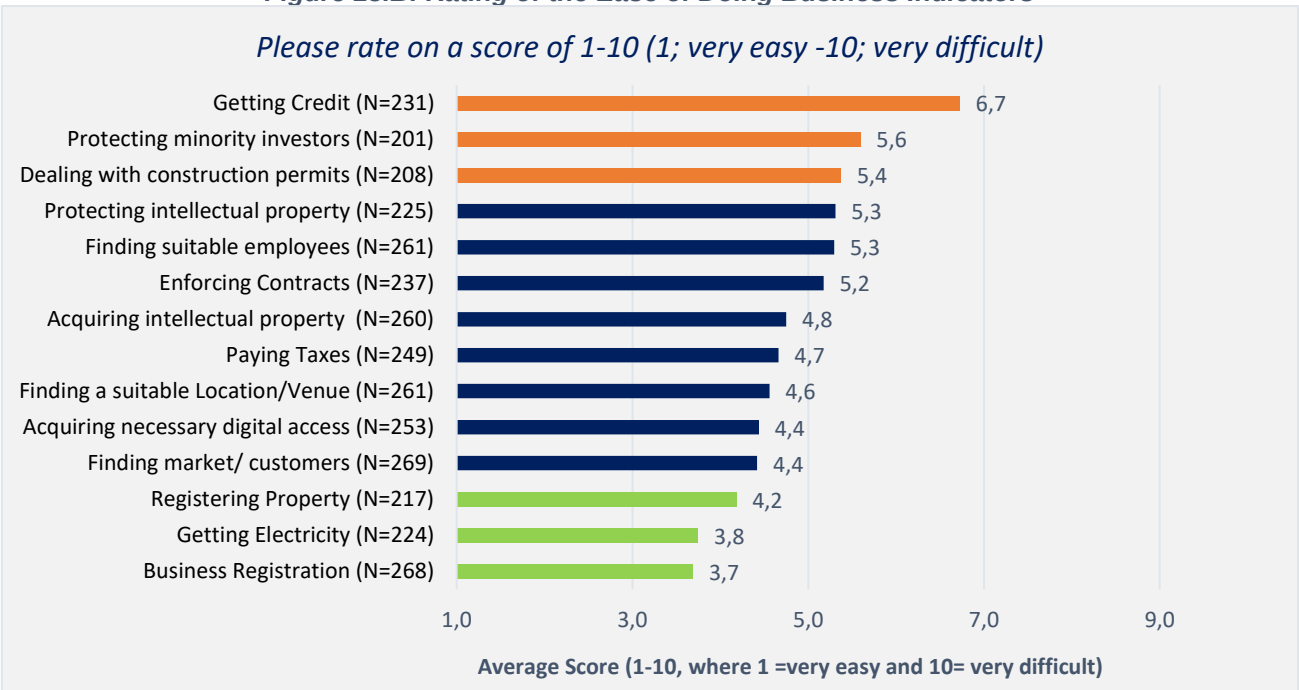


Figure 13.B: Rating of the Ease of Doing Business Indicators



[26] https://www.worldbank.org/en/programs/business-enabling-environment

Most BID applicants select the following indicators as relevant to their process of setting up and running a business: finding a market/customer (82%), business registration (81%), finding suitable employees (79%), finding a suitable location/venue, (79%), and acquiring intellectual property (79%). However, the indicators that most BID applicants select as relevant to them in their process of setting up a business are not necessarily the obstacles, they most struggle with. For instance, business registration, which is the second most often selected indicator by all BID applicants, is only rated with an average of 3.7 points. Thus, whilst this is something that most future entrepreneurs must deal with on their way to setting up and running a business, they do not find registering a business particularity difficult. On the other hand, getting credit, which only 70% of all BID applicants mention as relevant to setting up their business, is with an average of 6.7 points rated as the most difficult obstacle. The other indicators rated as most difficult are protecting minority investors (5.7 points) and dealing with construction permits (5.4 points).

From open survey responses and interviews with BID applicants, it has become apparent that besides the costs of setting up a business, many BID participants mentioned the challenge of combining having a (full-time) job with the time required for setting up a business. **Most BID participants cannot live (immediately) from their business, so many remain full-time employed (in Germany). Many BID applicants also (75%) grapple with the taxation when residing in Germany but setting up a business in their country of origin. Furthermore, many BID participants mentioned that they underestimated the time required for setting up a business. Participants also mentioned struggling with assessing their business idea's actual profitability, limited experience in submitting loan applications, and attracting capital/funding**. Other obstacles mentioned by respondents include elaborating their business ideas to their target groups, finding investors, creating contacts within the local authorities, dealing with corruption and government authorities training employees, setting prices and profit margins, generating sufficient revenue, obtaining international standardization for products, and dealing with pandemic induced difficulties.

3.1.2. Relevance of BID Support for Participants

Who is selected for the BID Programme?

BID participants are selected by a jury based on a transparent rating system that takes the following evaluation criteria into account: (1) sustainable development impact[27], (2) market and innovation[28], (3) feasibility[29], and (4) business founder or team[30].

Out of the 330 respondents in our sample, 196 had their business idea supported by the BID (59%), whilst 134 (41%) were non-selected BID applicants (comparison group). As mentioned in chapter 2, we do not find any statistically significant differences at the 95% confidence interval between the treatment group (candidates selected and supported by PMD), and the comparison group (applicants

[27] I.e., What contribution can the business idea make to the sustainable development of the founder's country of origin?
[28] I.e., What contribution can the business idea make to the market and sector(s) in which it will be implemented?
[29] I.e., Can the business idea realistically be implemented in the country of origin within the given timeframe, and does it have the potential for long-term financial sustainability?
[30] Does the founder/team have the skills, motivation and commitment to successfully implement the business idea and to benefit from the support offered by BID?

to BID but was not selected for PMD support) in terms of age, gender, education[31], income[32], average years of work experience, years in Germany, and the stage of the business idea, although we do find differences in terms of the year of application and the country of origin. Additionally, we find that the comparison group a slightly higher rating on the following[33]: understanding of the target market (4.0 vs 5.0 points), competitive market forces (5.8 vs 6.5 points), and potential customers 5.7 vs 6.6). These differences are statistically significant at the 5% level (95% confidence interval). Whilst we cannot draw any conclusions on why this is (perhaps only those rejected BID applicants who had a good understanding of the market and customers filled out the survey), it means we will include (control for) these variables in our multiple regression analysis.

What is the Start-Up Capital of BID Participants?

Amongst the 196 BID participants, 156 (80%) report a start-up capital, of which 140 (71%) report a start-up capital above-zero. As the dispersion of the start-up capital is quite large[34], we not only report the mean (average) but also the median (the middle value when the date is arranged from small to large). The start-up capital (for those who report it to be above EUR 0), ranges from EUR 20 to 390,000 EUR. The average (median) amount of start-up capital amongst BID participants is EUR 34,290.3 (EUR 11,850).[35] Figure 16 illustrates the average and median amount of start-up investment into the business idea by country. BID participants from Vietnam have the highest average (median) start-up capital with EUR 96, 178 (EUR 25,863). BID participants with the lowest start-up capital come from Serbia with an average (median) amount of EUR 7,167 (EUR 500). Although some of these figures need to be taken with caution as our per country sample (N) is rather small.

Most BID participants contribute their own funds to the start-up capital (68%) with an average of EUR 12,210 (EUR 5,290). Some BID participants (16%) were also able to acquire private investment (in return for shares, mostly from family and friends) with an average (median) of EUR 24,418 (EUR 4,980). A much smaller share of BID participants was able to secure a loan (11%) with an average (median) of EUR 31,041 (EUR 4,500). Lastly, as mentioned above, 11% (N=21) of BID participants also received another grant (not from BID). The amount differs largely, as evident from an average (median) grant value of EUR 52,882 (EUR 5,580).

[31] Whilst not statistically significant as per as two-sample t-test, some mere descriptive differences can be observed: For instance, the treatment group has a slightly higher share of women (28% vs 22%) and a higher share of people with a postgraduate degree and higher (79% vs 71%).

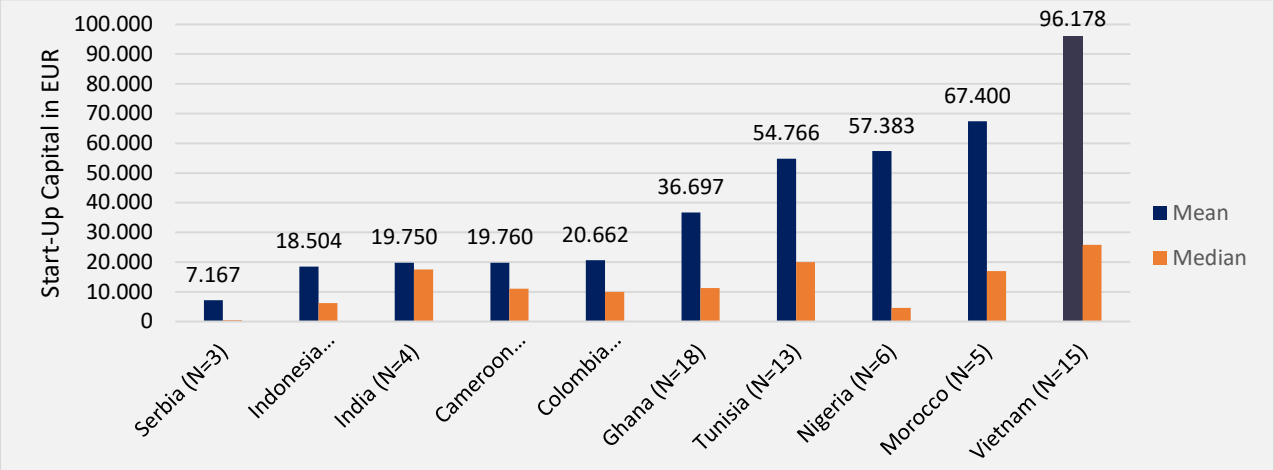
[32] Winsorized at the 1% and 99% percentile to reduce outliers. Treatment respondents have a higher average income of EUR 19755 vs EUR 16885) compared to comparison respondents, but this is not statistically significant.

[33] The differences in means are statistically significantly different from zero based on a two-sample t-test, at the 95% confidence level.

34 The data is already winsorized at the 99th and 1st percentile to reduce outliers.

[35] All start-up capital and components are winsorized at the 1 and 99th percentile to reduce the effect of outliers.

Figure 14: Start-Up Capital of BID Participants by Country (N=154)



What Other (non-BID) Support Did Participants Receive?

Around 31% of BID participants (N=61) state that they also received other training, which seems on average to be lengthier than BID support with an average of 37.5 days of training. Equally, as stated above, 11% (N=21) of BID participants also received another grant support (not from BID), which they do not need to pay back. The other sources for grant support mostly come from family and friends. However, some also received support from other institutionalised business support programmes. One other GIZ project that was mentioned several times is WIDU.africa[36], which mostly supports already established businesses with coaching and a grant, whilst leveraging diaspora investments. This underlines opportunities for the BID to build synergies with other GIZ programmes that can offer follow-on support. Other support programmes mentioned in Germany are Enpact, Existenzgründerpass of the IHK[37], SMILE – die Gründungsinitiative[38], Lokalhelden Gründerwerkstatt[39], whilst some support programmes in the countries of origins are Souk At-tanmia (Tunisia)[40]. ImpactHub with its global network is also mentioned, outside of the collaboration between ImpactHub and BID. In most interviews with BID participants and in the FGD with PMD country coordinators, **the need for providing BID participants with a list of other (follow-on) support programmes in Germany and their country of origin was mentioned, as the BID support period of 6-12 months is generally perceived as too short.[41]**

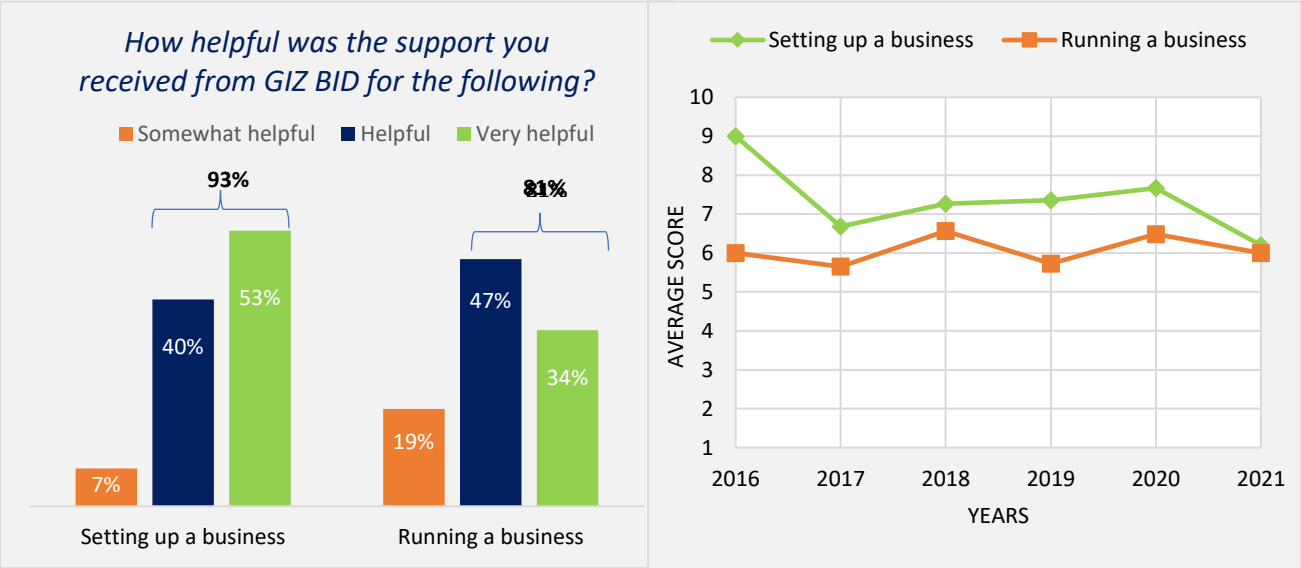
How relevant was the PMD BID support for getting the business started and running?

Figure 17.A indicates how helpful the support from BID was for the surveyed 196 BID participants. Most BID participants deemed the support from BID very helpful or helpful for a) setting up a business (93%) and b) running a business (81%). As BID's goal is to help entrepreneurs to set up a business that is still active after 6 months, it is perhaps not surprising that 19% of participants stated that BID

[36] https://widu.africa/
[37] https://www.erfurt.ihk.de/service/existenzgruendung/beratungsfoerderung/existenzgruenderpass-der-gfaw-403468
[38] https://www.smile.uni-leipzig.de/
[39] https://lokalhelden-werden.de/gruenderwerkstatt/
[40] https://www.afdb.org/en/countries/north-africa/souk-at-tanmia
[41] In some cases, BID has already explored partnerships, as with the German chamber of commerce (Aussenhandelskammer or AHK). The cooperation with the AHK is quite different in each country. BID analysed in each country the entrepreneurship ecosystem. In some countries, there is a high interest of the AHK to work together with the Diaspora Entrepreneurs (for example in Morocco). In other countries there might not be a big interest from the AHK or there is none (for example in Cameroon). Sometimes local chambers of commerce or other entrepreneurial institutions are better suited to the needs of the BID participants.

was only somewhat helpful for running a business. Figure 17.B indicates that the support for setting up a business may have slightly decreased in relevance over the years, whilst the relevance for running has broadly stayed the same. Yet, as a small year-wise sample might not truly reflect participants' views, the evaluation team recommends that BID introduces an end-of-support survey where all participants can be asked.

Figure 15. A & B: Relevance of BID Support (N=151) by Years



Please note: The scale asked is from 1, not helpful, to 10, very helpful. We grouped <4 somewhat helpful, 4-7 helpful, and >8 as very helpful. The average score for setting up a business is 7.4 and 6.2 for running a business.

We further elaborate on the effectiveness of the BID programme and the additional support needs of participants in chapters 3.5 (impact) and 3.7 (learning).

What can we learn from BID Non-Participants?

It is worthy to note that amongst the non-selected BID candidates, 53% never received business coaching, 82% never received support for a market exploration study, 67% did not receive support in developing a business plan or implementing it (85%), and 92% never received support for joining/establishing an entrepreneurial network. Lastly, 91% never received any grant support towards setting up a business. This indicates BID's immense value and uniqueness in the market for future diaspora entrepreneurs, which is not easy to acquire for aspiring entrepreneurs.

The BID support programme is highly relevant to aspiring diaspora entrepreneurs and has a unique value in the market. Besides, BID participants wish for:

- A longer supporting period
- Tailored support for Business Ideas at their various development stages
- More help in securing external financing and start-up capital (especially in Serbia), protecting minority investors and construction permits
- Support in findings suitable employees (HR management), finding a suitable location, markets, and customers (networking), and provide help with international taxation, and intellectual property.

3.2. Effectiveness

Having examined the relevance of BID for applicants and participants, we next analyse the effectiveness of Business Ideas for Development.

3.2.1. Effectiveness of BID Support

What is participants' knowledge growth/skills improvement after taking part in the Training Activities of the BID?

Support on Business Development

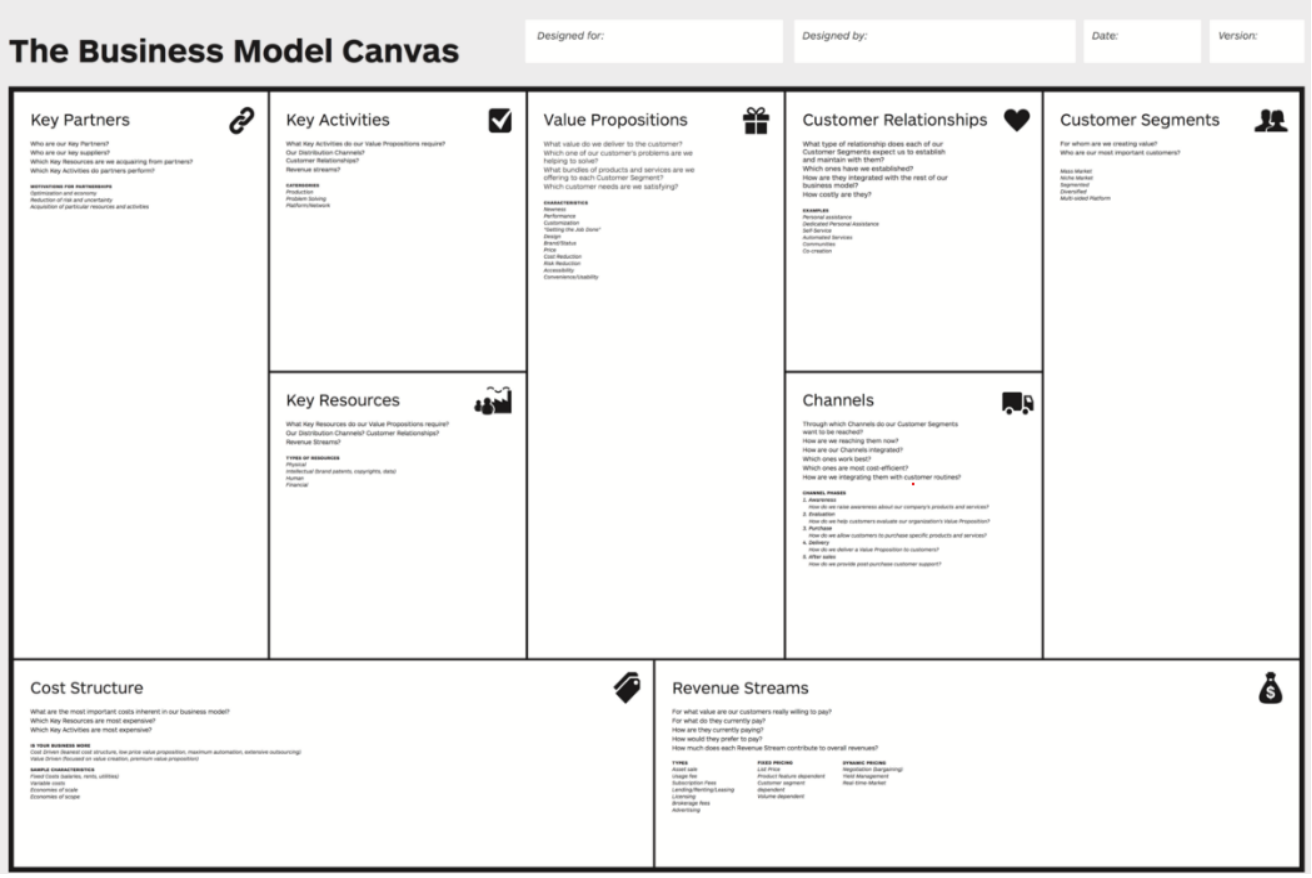
In this section, we look at what BID participants learned during BID. The standard procedure is that participants first develop the business idea (model) and then a business plan.

Amongst the 196 surveyed BID participants, 68% received support from BID on conducting a market entry study, 78% received support in writing a business plan, and 64% also received support on implementing the business plan. Figure 18 illustrates that the topics which those BID participants who received Business coaching (N=174 or 89%) learned about vary a lot. Here it is important to note that many of the topics that are listed in Figure 18 are country-specific. Local service providers (such as Impact Hub in Colombia and Serbia, CcHub in Nigeria, CGA in Cameroon) were, however, only integrated into BID's offering in 2020. From 2016-2019 BID participants did not receive a systematic coaching/assistance from a service provider in the partner countries.

Figure 16: Topics Covered during the Business Coaching (N=174)

Most BID participants learned how to develop a business idea (72%), how to develop a business plan (78%), and how to set up a business (56%). The standard procedure is the Business Model Canvas (BMC), which allows future entrepreneurs to define their value proposition, cost structure, key partners, customer relationships, customer segmentation, logistic channels, and revenue streams (see picture). To quote one participant from Nigeria: *"Before BID I thought about my business idea only from a technological perspective. Throughout the coaching using BMC, I learned how to approach my idea from a business perspective, which is much more focused on what is feasible from*

a financial and market-perspective. As a business person, your goal is to develop a product that fits the needs of your customers and to launch it in the market".
Many participants mentioned that they learned a lot about developing and implementing a business from the local incubators in addition to independent online resources, indicating the complementarity with the BID material. BID participants also stated that thanks to the market exploration trip they better understood their target market, potential customers and competitors, the best market entry and expansion strategies, and how to best reach their customers, etc. One BID participant stated, "*The market exploration trip allowed me to convert the learned business theory into practice*" (Male participant from Ghana).
Some topics learned during the coaching besides developing a business idea/plan and setting up a business are not widely mentioned by participants. For instance, only a few participants mentioned learning about bookkeeping and accounting (12%), operations and supply chain management (11%) and Information technology (10%).



Picture 6: Business Model Canvas

Table 3 illustrates the skills growth from business coaching by topic (amongst those who state to have learned about the topic). **The average skills growth is an increase of 3.3 points** (measured along with a score of 1-10, with 1 being very low and 10 being very high). The top three topics for which the highest increase in skills can be observed is: bookkeeping and accounting (+4.1 points), setting and up a business (3.6 points), and legal and insurance' (+3.6 points). To quote one BID participant from Serbia: *"Kompass and the BID local incubator helped make me aware of my tax and legal (visa)*

situation, since I am working in two countries. This was a good start. However, in the end I had to hire several lawyers to help me work out my situation, which was very expensive. It would have been great if BID had list of the appropriate lawyers or accountants for participants to go to who are specialised in these kinds of situations."

Table 4: Skills Increase from Business Coaching

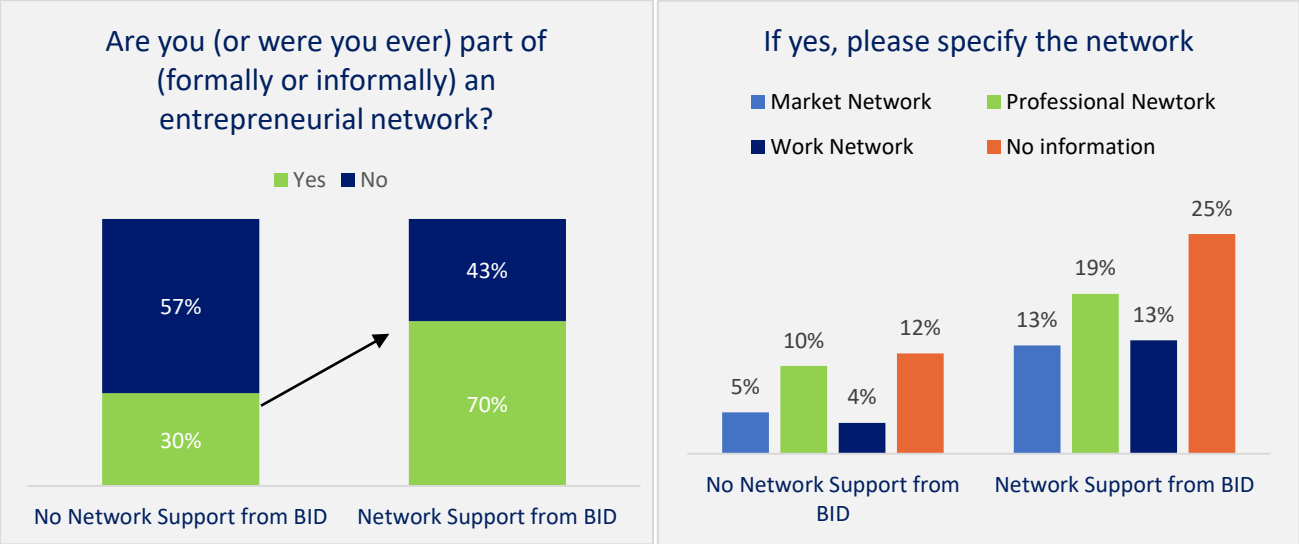
How would you rate your skills on (enter all that was selected above) on a scale from 1-10 (1 being very low and 10 being very high), before and after the coaching?	Before	After	Improvement (Difference)
Bookkeeping/Accounting/	3.5	7.6	4.1
Setting up a business	4.0	7.6	3.6
Legal and Insurances	3.2	6.8	3.6
Developing a business plan	4.0	7.4	3.4
Developing a business idea (primary product or service offering)	4.3	7.5	3.2
Information technology (e.g., excel, google analytics, SOE)	3.8	6.8	3.1
Management, Strategy & Leadership skills	4.7	7.8	3.1
Financial Management	4.1	7.1	3.1
Human Resource Management	4.5	7.5	3.0
Business expansion/ Export Strategy	4.0	7.0	3.0
Operations and Supply Chain Management	4.3	7.3	3.0
Marketing & Sales (e.g., social media, email marketing etc).	4.1	7.1	2.9
AVERAGE	**4.0**	**7.3**	**3.3**

BID participants also found the financial support - in form of a **grant** - **very helpful at various stages of developing their business idea and plan.** BID participants reported utilizing the grant money to carry out some core business activities like business registration, market research and exploration, developing a prototype and technological ideas, building a website, buying domains, trademark registration, legal services, insurance and employing staff and hiring subject expert consultants. The financial support was also valuable to cover secondary tasks like product testing, travelling for market study, marketing & branding, and overcoming the Covid pandemic. *"The financial support helped me to register my business, perform a market study and employ two people"* (Male Participant, Tunisia).

Business Networking Activities

We recall that 79% of the 196 surveyed participants received support from BID in establishing/joining an entrepreneurial network. Figure 19 shows that those participants who received networking support from BID are more likely to be part of entrepreneurial network relative to those who did not (70% vs 30%). Of those who received networking support from BID, most received networking support through events organised by GIZ/BID in Germany (41%), through the PMD country coordinator (46%), through financial support to participate at fairs (10%) and through other type of support (3%), such as alumni WhatsApp groups. Both those who received networking support from BID and those who did not most often have a professional network (19% vs 10%), although, unfortunately, many participants did not provide information on the type of network they have joined. As examples of entrepreneurial networks, BID participants mentioned the *'German Alumni Entrepreneur Network'* in various countries, the chamber of commerce in various countries, sector-related entrepreneurial networks such as the *'Energy Entrepreneurs in Colombia'*. **These networks are vital for entrepreneurs for finding customers, business partners, suppliers, and general knowledge exchange.**

Figure 17: Effectiveness of Networking Activities (N=196)



**Market Network*: network of customers, competitors, suppliers, retailers, etc. *Professional Network*: network of investors, banks, accountants. *Work Network*: network of partners, colleagues, business mentors, entrepreneurs.

To what extent was BID's financial and technical support effective in helping participants set up and run a business?

Amongst the 196 surveyed **BID participants,** 130 **(66%)** have **set up a business**. Whilst 51 (26%) are still in the process of setting up a business, 7 (4%) tried to set up a business, and the remaining 8 (4%) did not provide information to the question. Amongst the 130 setup businesses, 91[42] (**70%)** are **still active**. We observe significant year-wise differences in business creation. In the last three years, the rate of business creation has decreased (in our sample). A lower rate of business creation for the 2021 is most likely related to Covid-19, and the fact that creating a business takes time.

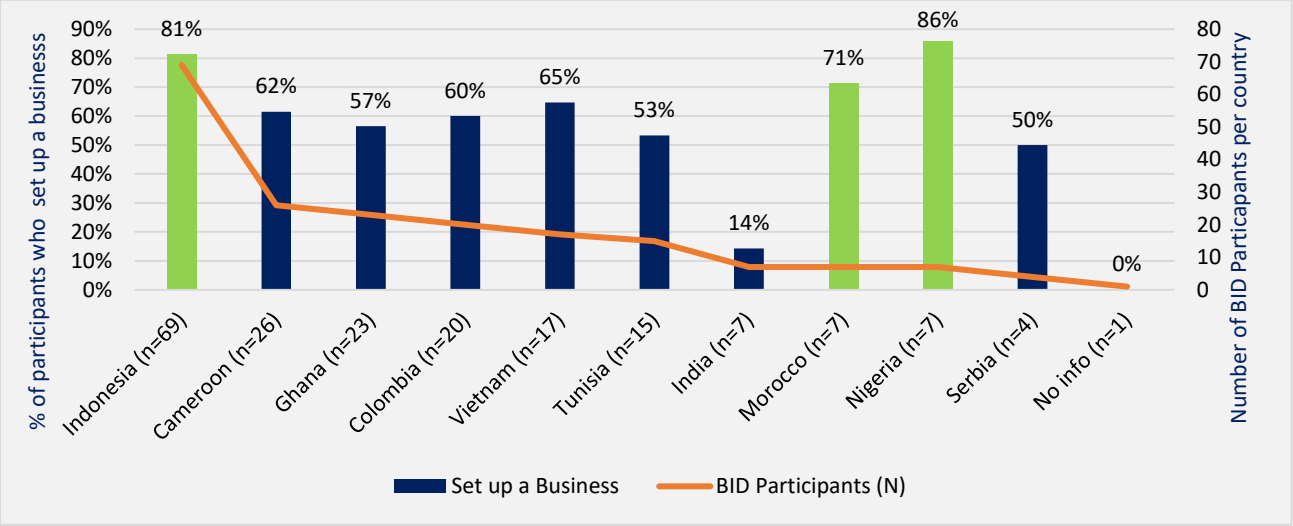
[42] As per the survey responses, 79 respondents said that their businesses is still active, 18 said no, and 33 did not answer the question. Based on available information on the respondents' businesses, we filled in the missing data. When the respondent did not answer the question on whether their business is still active but said that in the next 12 months, they expect their businesses' revenue to increase a lot, a little bit, or stay the same (as opposed to decrease), we assumed that the business is still active.

Table 5: Business Status

	BID Monitoring Data			BID Evaluation Survey											
Year	Business Ideas supported	Business Created		Survey respondents		Business Created		Business still active		Plan to create a business		Tried starting-up		No Info	
	N	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2016	68	10	15%	2	3%	2	100%	1	50%	1	50%	0	0%	0	0%
2017	54	21	39%	24	44%	18	75%	11	61%	5	21%	1	4%	0	0%
2018	58	20	34%	21	36%	15	71%	13	87%	4	19%	0	0%	2	10%
2019	65	26	40%	45	69%	31	69%	26	84%	12	27%	0	0%	2	4%
2020	114	21	18%	66	58%	44	67%	36	82%	18	27%	3	5%	1	2%
2021	70	7	10%	5	7%	3	60%	3	100%	2	40%	0	0%	0	0%
No info				33		17	52%	2	12%	9	27%	3	9%	3	9%
TOTAL	429	105	**24%**	**196**	**46%**	**130**	**66%**	**91**	**70%**	**51**	**26%**	**7**	**4%**	**8**	**4%**

Figure 18 illustrated the distribution of BID participants who set up a business by their country of origin relative to the number of BID participants from that country which have filled out the survey. The share of participants who set up a business appears higher for those who have a migration background from Nigeria (86%), Indonesia (81%) and Morocco (71%). However, **due to a small in-country sample, which are not representative, we cannot make any claims on in-country differences, especially for Serbia, Nigeria, Morocco, and India.**

Figure 18: Country-Wise Distribution of BID Participants Who Set Up a Business (N=196)



Box 4: A Case Study from Ghana – Kempo Textile

Picture 7: Kompo Textile

Background: Mr Henry Nana Enninful, from Ghana, became a BID participant in 2019. He holds a bachelor's in aerospace engineering from the Kwame Nkrumah University of Science and Technology and a master's degree in Petroleum Engineering from the Polytechnic of Turin, Italy. Currently he is undertaking a PhD in Physics in Germany, where he has been since January 2018.

Business Idea: Mr Enninful got to know BID through friends in Germany and applied when he first arrived in Germany in 2018 and became a BID participant after the second attempt in 2019. Mr Enninful explained that since tons of second-hand clothes are imported into Ghana from Europe and USA, Ghana has become one of the leading importers of used clothing in the world. Many of the clothes are made from oil-based products such polyester/nylon/acrylic). This means that it will take the clothes hundreds of years to decompose when discarded. As only about 30-40% of the imported clothing are fit for purpose, the rest are dumped on landfills, gutters, and other places.

Business Creation: To combat this problem, he created the business – Kempol Textile- in Ghana, which focuses on producing clothes and active wear from bamboo and other sustainable wood species which are easily biodegradable, moving away from clothes made from polythene (oil/petroleum products). Kempo textile was birthed with the idea of reducing poverty through creation of employment opportunities for people, reducing hunger in Ghana.

BID Support Received: When he applied to BID, his business was a mere idea. Whilst he did not understand the market and his potential customers very well. As such, he received business coaching and a grant. He claims that BID was relevant for helping him kick start the business. With the grant, he was able to pay for some experts to train him, acquire business space, business registration etc. The technical support from BID helped him to fine-tune his business idea: focusing on three business models: a) mass production, b) textile manufacturing and cloth branding (currently working on this). Furthermore, the local incubator in Ghana helped him with business development and client outreach. *"I was given some contacts to sportswear companies to showcase my bamboo fabric wear".*

Picture 8: The owner and an employee of Kempo Textile

Other Support: Mr Enninful also received technical support from smile (University Leipzig)[43] in Germany, and financial support from Samira Bawumia Empowerment funds in Ghana. This fund supports start-ups that empower women (as he had 4 women employees) through training and capacity building to economically sustainable. It helped him in acquiring some of the textile materials and in buying some sewing machines. He also obtained a personal loan from Deutsche Bank to support the business.

[43] https://www.smile.uni-leipzig.de

Obstacles: Overall it was not difficult for him to start a business "because I got a loan from the bank in Germany, there was access to electricity, we pay our taxes and acquiring the technologies was not difficult. "However, he faced a few challenges.

1. **Finding the right employees** for the start of the business. That is getting a seamstress who sews very well was a challenge. *"In Ghana, most people know how to sow with hands than the electric machines".*
2. **Finding a market** for the product was a challenge.
3. Competition. The business owner notes that the degree of competition was very high given the influx of the nylon activewear and other imported second-hand clothing. However, he also states: *"The competition to me is positive and given us the edge as a business to be more innovative and offer something better for the clients."*

Success Factors: He noted the following success factors for starting and running a business:

1. Access to loan
2. Access to required technology
3. Access to a suitable location
4. Access to electricity and working space

Impact of the Business on SDGs: The business – Kempol Textile- has an impact on:

- **Job creation**. Kempol Textile has 6 employees (4 women and 2 men).
- **The environment** by moving away from petroleum-based clothes production. Additionally, the business also plants a tree for each clothing item sold.
- **Waste management.** The products are biodegradable and therefore do not add to the already existent pile of non-degradable clothes in Ghana. Waste Management. The business also used fabric waste to make masks for people during the COVID-19 pandemic, especially for the less privileged. Furthermore, the business has started making sanitary pads for women from the waste of textiles. In the future, they plan to make sanitary pads from bamboo. Sanitary pads were also made for women from the waste of the textile

Indirect Effects of the Business: Mr Enninful described how the business has had a positive effect on the access to health care for his employees, which they can now afford thanks to a living wage (wage above market standard). He also explains how for instance he once employed a pregnant woman for a few months so she could earn enough money to take care of herself at the hospital when she delivered. Furthermore, Mr Enninful explained how opening a business has had indirect educational effects on him and his family. He (the business owner) learnt the basics of textile manufacturing and even acquired a certificate on. His mother was also able to train herself in sowing and his sister has acquainted herself with social media marketing, ICT, and advertising. He also mentioned that it was opportunity for his family to sow new dresses for themselves. There are also indirect effects for his customers since the clothes produced are anti-bacterial and protect from UV rays. Furthermore, he notes positive effects on his community. *"I see myself as role model to my community because anytime I share my story about the Kempol textile company and what we use wood (bamboo) for production, many are inspired because of its innovativeness".*

Sustainability and Business Outlook: The business has not yet generated a profit, but the business owner expects it to do in the next 10 – 12 months. During the COVID-19 pandemic, the restriction on movement slowed marketing and the business resorted to online marketing at a high cost since the business was new. *"We didn't get any financial gains because people didn't have much purchasing power since most people lost their income generating jobs. Though we saw little marginal increase in sales, online sales are not user friendly in Ghana."* The business's main next steps are:

1. Getting a suitable location for the business. *"The location of the business is on a residential plot hence is not visible. We hope to get a business plot especially by the road side for easy visibility and accessibility."* The business owner also states he wants to have a showroom for the products. Start production of their own fabric rather than getting it from a supplier outside.
2. **Increase sale** through mass production and good marketing. In the long run, Kempol Textile aims to target the European Market.

Learnings for BID: Mr Enninful explained that *"BID should continue to provide technical advice to start-ups."* Something that stood out to him was that the grant was not given in lump/bulk sum but in tranches. This impeded the smoothness and progress of the start-up. Also, the amount given was small. Hence, he recommends that BID should consider giving capital instead of grants for business start-ups. Furthermore, he would recommend that GIZ Ghana should own and personalize the BID project. *"It is in the hands of the consultants to run it which isn't the best to me. Also, aside from financial support, BID could also support logistics such as the supply of the needed equipment and providing external partnerships for start-ups. For instance, GIZ should link businesses to associations (like unions). "*

3.2.2. Factors Supporting Business Creation

Which factors contribute to a successful start-up and operation of businesses?

To assess which factors, contribute to the successful start-up of businesses (apart from BID support which we will investigate under impact – chapter 3.4), we ran a multiple regression (probit) model on the entire sample accounting for factors that may influence business creation such as: gender, age, education, occupation, relevant work experience, start-up capital, stage of business idea, confidence, year of application to BID, entrepreneurial network, whilst controlling for treatment (BID support) status. We then estimated the predictive margins for explanatory variables which predict the probability of creating a business[44]. The below results show those factors that are, on average, unique predictors for success and failure of setting up a business for BID applicants (not just BID participants).[45]

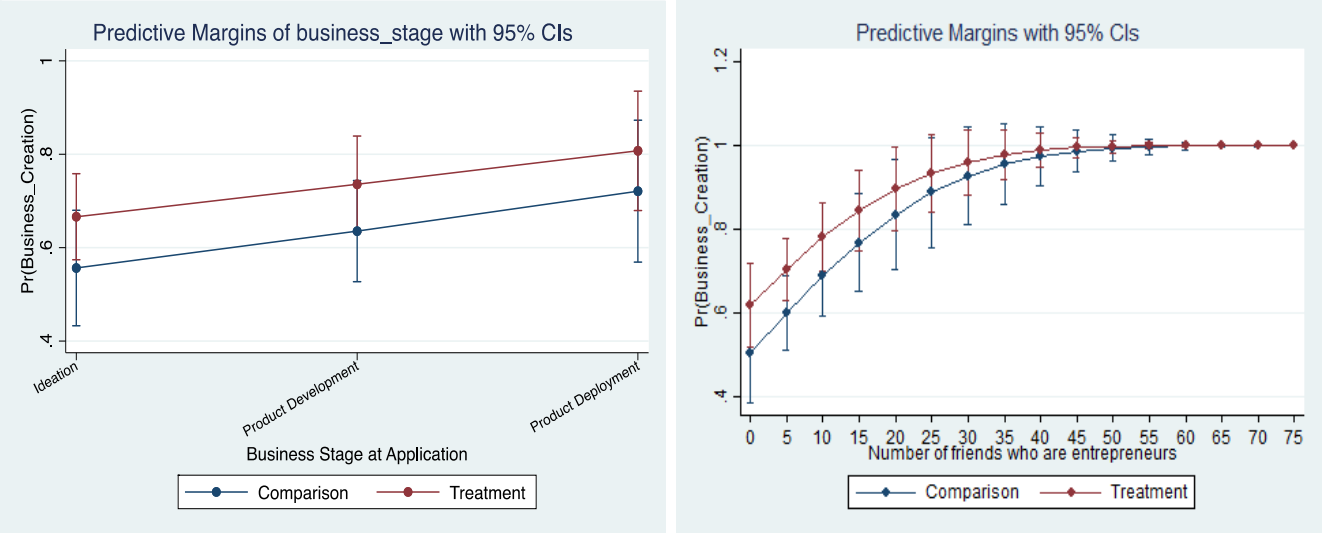
Enabling factors:

- **Business Coaching**: We recall that nearly all BID participants received business coaching whilst only half of the non-selected BID applicants did. Receiving business coaching (from BID or another source) is vital and increases the likelihood of starting up by 17.9%.
- **Stage of Business Idea**: Perhaps unsurprisingly, individuals who are further along with their business idea when applying to the BID are more likely to start a business. Each additional point on top of the average of 4.8 points on the rating scale of the business idea (where 1 (very low) and 10 (very high)), adds a 2.6% likelihood of starting a business.
- **Network**: Whilst being part of an entrepreneurial network or receiving networking support (from BID or another source) has no statistically significant effect on creating a business, interestingly, the number of friends and family who are entrepreneurs does. Each additional personal connection who is an entrepreneur (after the average of 12 entrepreneurial connections) adds a 1% likelihood of starting a business, most likely as they provide advice,

[44] Those that are statistically significant, i.e., have a p-value that is smaller than 0.05.
[45] To better understand what general factors, help business creation and to ensure we have sufficient statistical power, which is enabled by a larger sample.

guidance, and connections and individuals feel confident to call upon them. This indicates that networking is vital, but "merely" introducing individuals to a network is not sufficient.

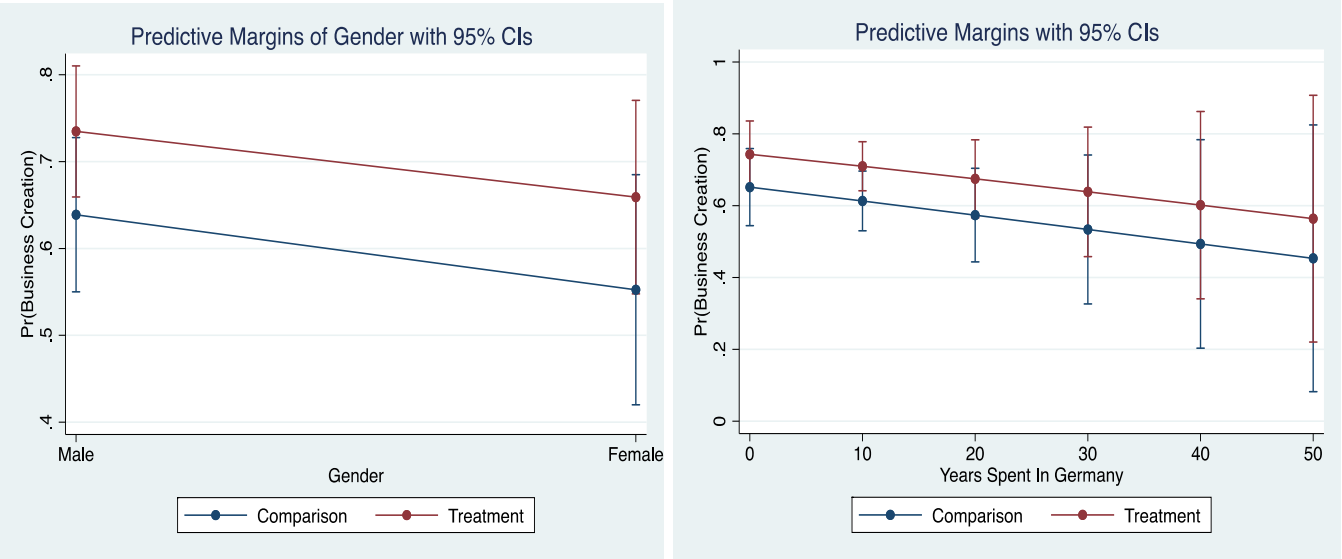
Figure 19: Enabling Factors for Business Creation (Predictive Margins)



Disabling factors:

- **Employment**: Individuals who are employed are less likely to start a business. This is most likely related to the time burden which setting up a business creates. Individuals who are employed are 11.1% less likely to start a business.
- **Gender:** Globally, only 1 in 3 business are owned by women (World Bank, 2020). Whilst the reasons are not always clear-cut, most studies agree that women encounter different obstacles than men. Some studies have found that women are less likely to borrow or save for a business but also less likely gain access to formal finance (Findex, 2021). Women also seem to have a higher fear of failure and lower confidence levels in their capabilities to start a business (GEM, 2021). Whilst the reasons may thus be manifold, amongst BID applicants also, being a female (as opposed to being a male) is associated with a 11.4% lower likelihood of starting a business, indicating that they require gender-specific support to tackle those barriers (e.g., see chapter 5).
- **Number of years in Germany:** Generally, the longer an individual has lived in Germany, the less likely the individual is to start a business in their country of origin. Each year on top of the average of 8.6 years in Germany reduced the likelihood of starting a business, yet only by 0.08% (which can nonetheless add up as some BID applicants have lived in Germany for nearly 50 years).

Figure 20: Disabling Factors for Business Creation



Neutral factors[46]:

Start-up Capital: We do not find that the start-up capital has a statistically significant effect on the likelihood of starting a business (although it does on the financial performance of businesses once they have been created- see section 3.2.4).

- **Income:** Similarly, we find that the individual's income at the time of applying to BID has no statistically significant association with starting up
- **Education:** Equally, having a high level of education, i.e., a postgrad is not associated with a higher likelihood of starting up amongst BID applicants. This is most likely the case as many BID applicants are highly educated to start with and thus it is not a unique predictor.
- **Relevant Work Experience:** The number of years of relevant work experience in the field of the business idea has no statistically significant effect on the likelihood of setting up an enterprise (whilst it may still have an effect on coming up with a suitable business idea).
- **Motivation:** We find that those BID applicants who are driven by a business opportunity i.e. an entrepreneurial interest and drive (as opposed to a necessity i.e., the need to create or supplement) are not more likely to start up. This could be the case as most BID applicants are driven by entrepreneurial drive which means it is no longer a unique predictor for starting up.
- **Confidence:** An individual's confidence in their ability to set up a business has no statistically significant correlation with starting up.

3.2.3. Description of the Created Enterprises

What do the created businesses look like?

This section provides a more detailed picture of those 130 enterprises that were created by the 196 surveyed BID participants.

[46] For the below covariates we found no statistically significant effect at the 95% confidence interval, meaning the p-value was above 0.05. We, therefore, do not present the magnitude of the coefficients (as there are not statistically significant) but report which covariates had no effect, which is an interesting finding by itself.

Legal Set-Up: The majority of the 130 created businesses are tax registered (55%), or plan to tax register (28%). In terms of legal setup, many created businesses are either limited partnerships (26%), sole proprietorship (26%), or corporations (LLC) (25%), or a non-profit/cooperative (8%). Whilst 12% of surveyed BID participants did not provide any information.[47]

Figure 21. A & B: Tax Registration & Legal Set-Up of Created Businesses (N=130)

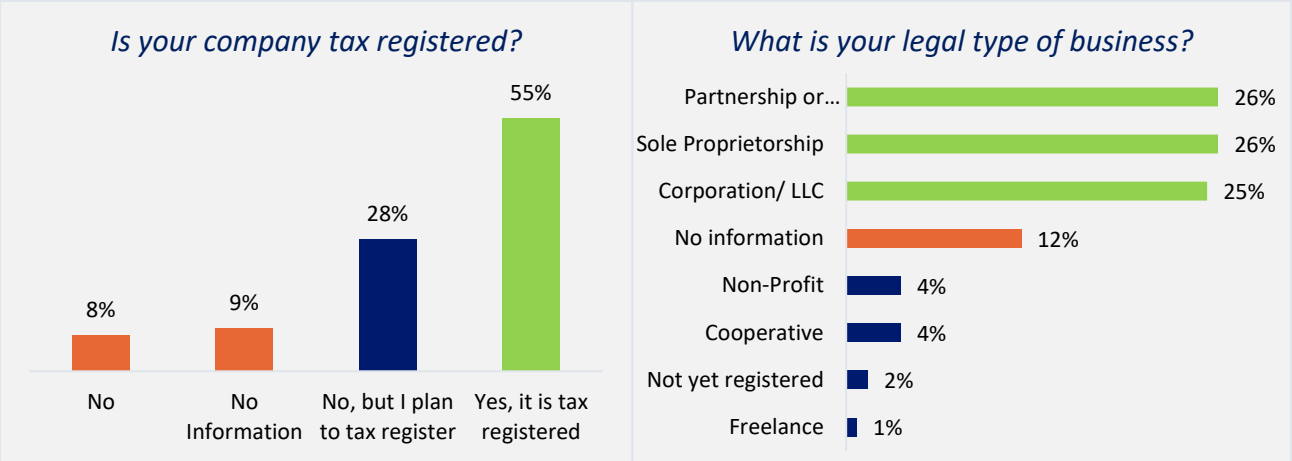
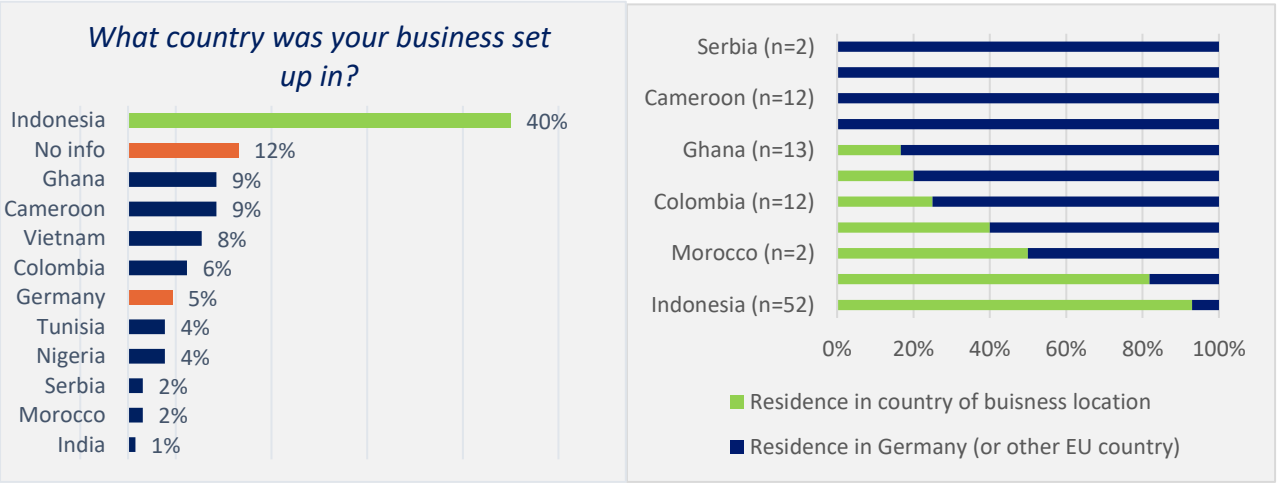


Figure 22. A & B: Location of Businesses (left) & Business Owners (right) (N=130)



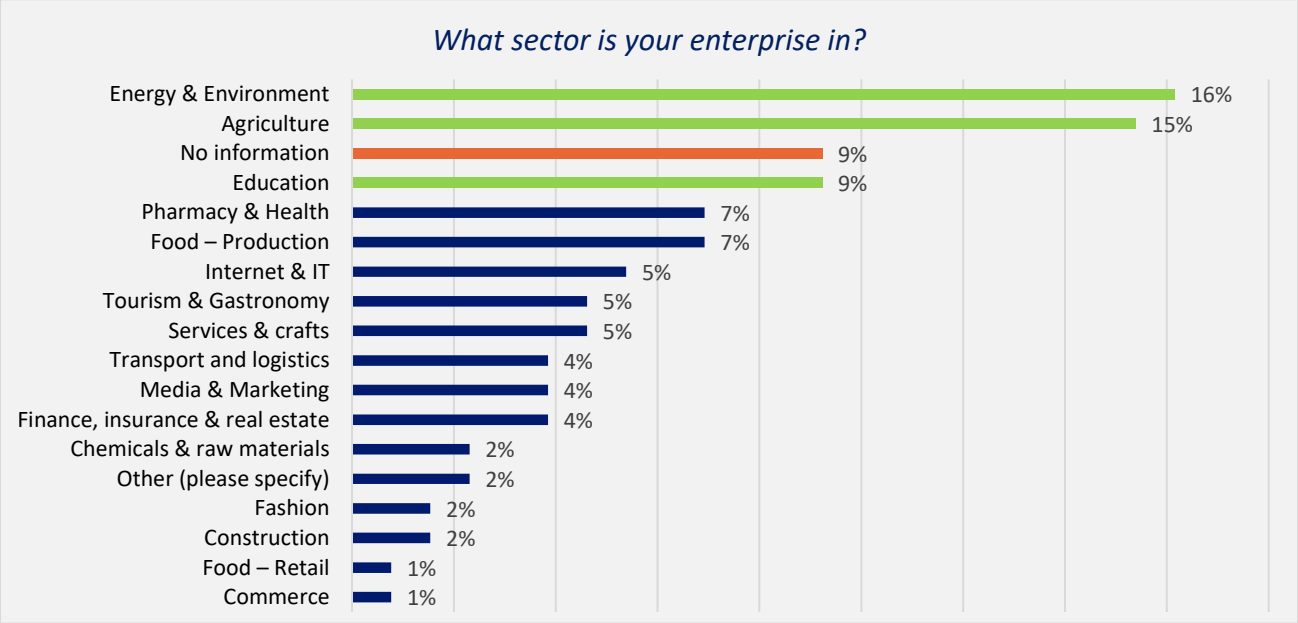
Country: Most BID participants set up their business in their country of origin. However, 5% set up the business in Germany. Furthermore, 64% of BID participants remain living in Germany, whilst 36% moved back to their country of origin. Whilst we cannot make any representative claims on the country-level due to the small sub-sample (n), we nonetheless notice, that all business owners from Serbia, Cameroon, and India (100%) in our sample have their residence in Germany or another EU country.

Sector: Most of the 130 created businesses are operational in the field of energy and environment (16%), agriculture (15%), education (9%), food production (7%), health (7%), tourism and gastronomy

[47] Respondents were also given the option "other". We have allocated these answers e.g., SARL to the existing headers e.g., LLC where applicable and placed the remainder e.g., "Logistics Business" under Don't know/refused.

(5%), services and crafts (5%), and Internet & IT (5%). We find that most of the 130 created businesses offer a combination of products and services (45%). The remainder of the businesses offers services (28%) or products (18%) (or refused to answer the question (9%)). Box 5 provides an example of an established business in (nearly) each sector[48].

Figure 23: Sector of the Created Enterprises(N=130)



Box 5:BID Business Examples from the Most Prominent Sectors

Energy & Environment: A business in Cameroon collects organic waste from major markets, converting it into biogas. It then sells the biogas, which is cleaner and more affordable than ordinary LPG, to women in the market. The business helps to improve market sanitation, reduce deforestation and CO^2 emissions.

Agriculture: A business in South-West Nigeria provides farmers a market for their produce, i.e., unpacked, and unprocessed food with a short shelf-life, which they clean and package sustainably. The business aims to reduce food wastage and environmental pollution.

Education: A business in Nigeria offers an audiobook library to preserve indigenous knowledge.

Pharmacy & Health: A business in Ghana provides the elderly or those with special needs with home-based medical services.

Food Production: A business in Indonesia provides gluten-free pasta using local ingredients.

Internet & IT: A business in Colombia provides technical virtual education on sustainable development (especially the climate and energy sector) working together with providers of software and hardware for online education in Latin America.

Tourism & Gastronomy: A business in Tunisia offers authentic journey to travellers. They work together with local guides and guesthouses. The business aims to improve sustainable travel.

Services & Crafts: A business in Indonesia provides unique home décor (pillows, mats, etc) in Jakarta and surroundings based on recycled plastic bottles. The business works together with suppliers of raw materials and aims to reduce plastic pollution.

[48] Most but not every respondent provided a description of their business in the survey.

Fashion: A business in Serbia offers sustainable handmade clothing which can be ordered online.
Finance & Insurance: A business in Indonesia offers a platform where SMEs can seek investment from local investors.
Chemicals & Raw Materials: A business in Cameroon offers laboratory services: 1) Quality control and stability studies for potable water, beverages, and food. 2) Analysis of chemical substances.
Media & Marketing: A business in Indonesia offers an outdoor hologram billboard.
Transport & Logistics: A business in Cameroon offers an online platform for buying bus and train tickets and to book taxis and motorcycles (another form of taxi) rides. In this way, the business reduces long waiting queues for customers at the bus/taxi/train stand.
Metal & Electronics: A business in India tackles the electronic waste supply chain in India by offering an app with which customers can buy and sell electronic waste transparently.

Picture 9: A BID- supported business producing textile from bamboo, woods and biodegradable materials in Ghana

Product /Service Offerings: Most of the 130 created businesses offer a combination of products and services (45%). Also, 82 businesses (63%) report having ICT solutions integrated into their business and business processes. To give some examples, BID supported businesses mentioned using online meetings and platforms, digital marketing via social media, the use of specialised software, mobile apps, and CRM.

Exports: Furthermore, 32 businesses (25%) state to export their services/products. This is slightly more than the 21 (16%) of businesses that state that they are in more than just one country. Whilst

nearly all BID supported businesses are located in either one of BID's partner countries or Germany, the number of countries is broader. For instance, some businesses in Ghana and Cameroon export to other African countries (Cote Ivoire (6%), Senegal (6%), and Kenya), whilst some businesses in Colombia export to other countries in Latin America (Peru (3%), El Salvador (3%). Additionally, some businesses export to European countries other than Germany, such as the Netherlands (6%), and the UK (22%).

Figure 24. A & B: Business Provision & Exports

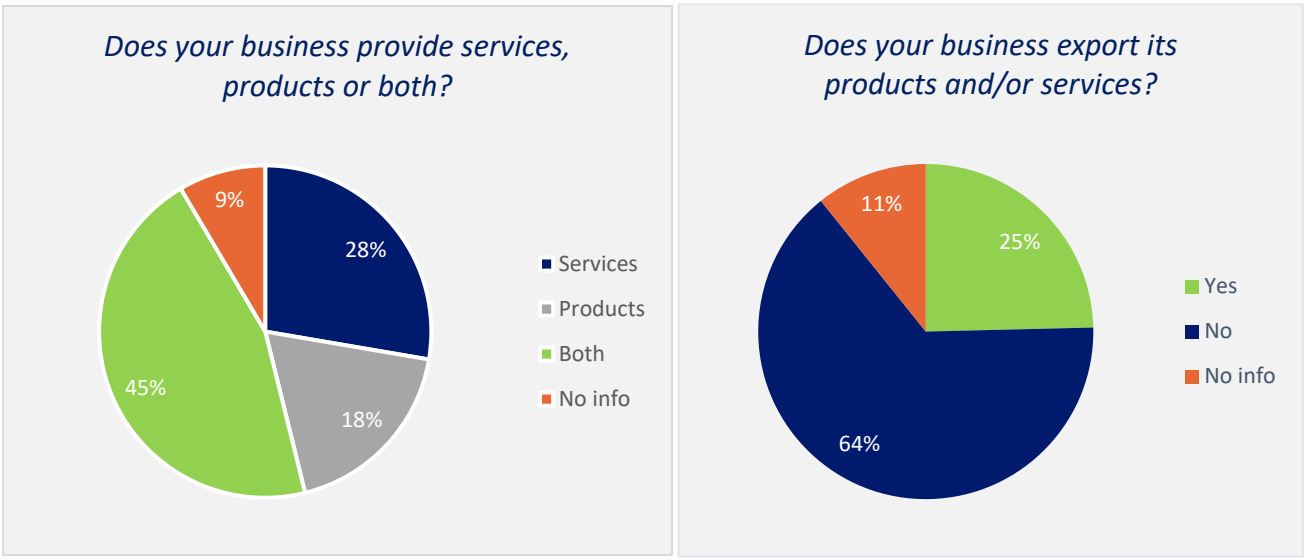
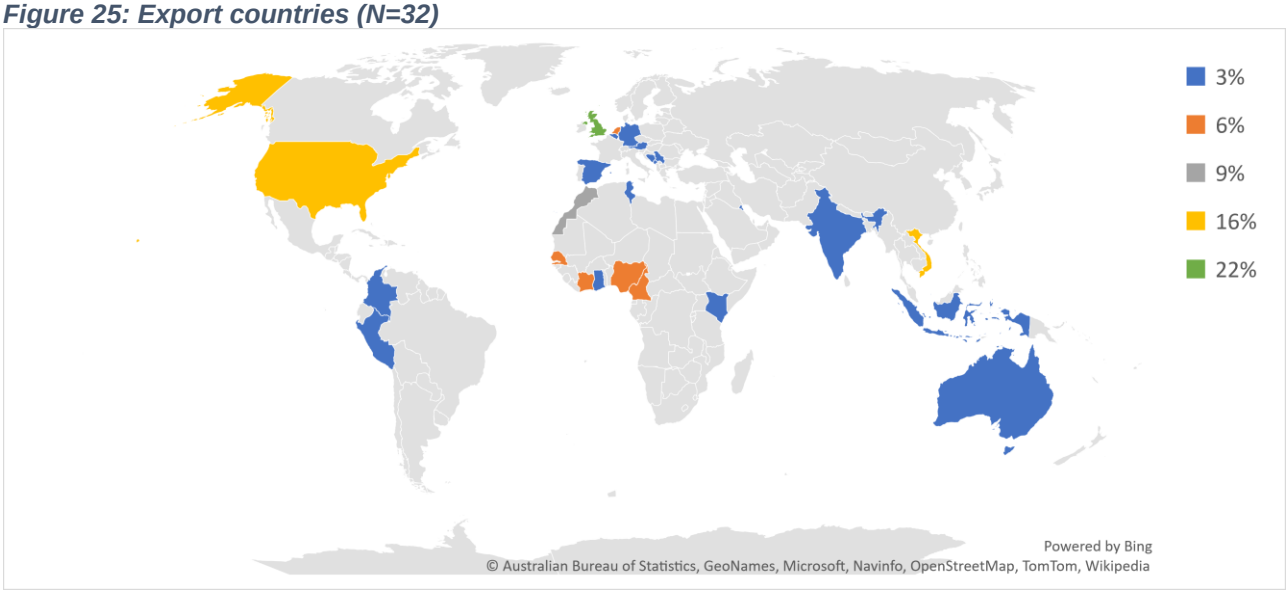
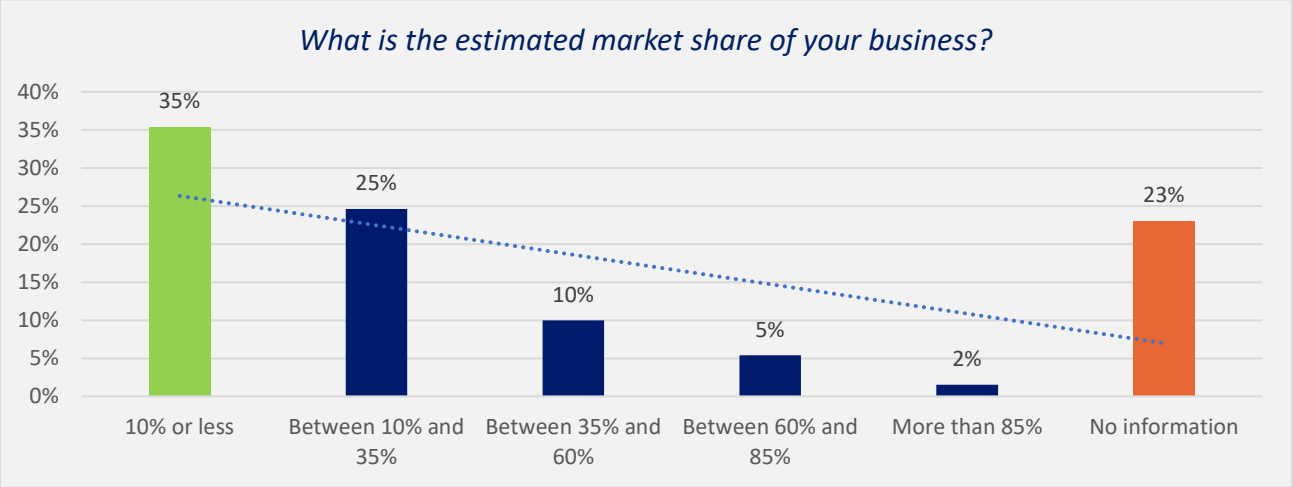


Figure 25: Export countries (N=32)



Market Share: One-third of the 130 created businesses have captured a 10% or smaller market share (35%). Capturing a market share is both time and competition-dependent. Where the product or service offered is rather niche, for instance, businesses can capture a higher market share but then often mention that they struggle to find customers.

Figure 26: Market Share of Created Businesses (N=130)



3.2.3. Business Performance of the Created Enterprises

Having broadly described the created enterprises, this section takes a closer look at their business performance of the created enterprises (n=130).

Business Performance Indicators: Amongst the 130 created businesses, 44 businesses (34%) report breaking even, meaning their turnover covers their expenses at the very least[49].
In terms of annual turnover, 53 businesses (41%) reported EUR 0, 44 businesses (34%) reported a positive annual turnover (above EUR[50] 0), and 33 businesses (25%) did not provide any information. The average annual turnover is EUR 27,065 for all those who reported an annual turnover and EUR 59,666 for those enterprises that reported a turnover above EUR zero. As the data is widely dispersed, ranging from EUR 40 (lowest) to EUR 780,000 we report both the mean (average) and the median (middle value). For the latter the median is EUR 10,313.
Regarding the annual profit (annual turnover minus expenses), we find again that 53 businesses (41%) reported EUR 0, and 44 businesses (38%) reported a profit, albeit including a negative profit, and 33 businesses (25%) did not provide any information. For those 44 businesses reporting a profit, it ranges from EUR -1,755 to EUR 100,000. The average annual profit is EUR 3,255.2 and EUR 7,601.5 for those enterprises which reported a value above zero. The median for the latter is EUR 3,250.
It should be noted, however, that it takes 3-5 years for a business to be really established in the market. Thus, given that the average age of created business is 2.6 years[51] for many BID supported business in this sample, this evaluation may have a downward bias. We therefore recommend repeating this impact evaluation in a few years' time to capture changes over time.

[49] Despite providing an explanation of what breaking-even means in the survey questionnaire, many respondents did not answer this question (or not accurately). Based on pure survey responses, only 30 (23.1%) of BID participants break-even, whilst 25 (19.2%) did not answer the question. We transformed the variables, wherever the respondent provided a profit (positive=break-even, zero=does not break-even, negative=does not break even).
[50] Participants reported all monetary values in their currency of choice. The values were then converted to EUR.
[51] Since we did not ask for the date that the business started but only the year of BID application, it is likely that many businesses are even younger.

Figure 27: Business Performance (N=130)

3.2.4 Factors that Support Business Performance

Which factors contribute to the successful operation of businesses?

To assess which factors contribute to the successful start-up of businesses (apart from BID support which we will investigate under impact – chapter 3.4), we ran a multiple regression (probit) model on the entire sample (not just BID participants)[52] controlling for factors that may influence business performance (e.g. whether or not the business breaks even[53]) such as: gender, age, education, occupation, relevant work experience, start-up capital, year of application to BID, entrepreneurial network, etc. We then estimate the predictive margins for explanatory variables which predict the probability of creating a business[54]. We check the robustness of our results through various means.[55] For instance, since business performance is conditional on business creation, we also run a Probit Heckman Selection model, to check for the robustness of our results, where the potential determinants of business success take into account the probability and determinants of business creation.

Enabling Factors:

- **Number of years the business has been active:** Unsurprisingly, the number of years that the businesses are active increases the likelihood that the business breaks even. Each year in addition to the average of 2.65 years adds a 4.9% likelihood of the business breaking even. This variable also captures the year in the application, which for the years 2019, 2020, and 2021 has a large and negative impact on the success of the business because of the disruption caused by the Covid-19 pandemic.

[52] To better understand what general factors, help business creation and to ensure we have sufficient statistical power, which is enabled by a larger sample.
[53] The binary outcome variable indicating whether the business breaks even (yes=1, no=0) will form the basis of the analysis on the performance of the business. This is because the variable renders the largest number of observations (N=167), compared to for instance profit (N=146) and because the analysis can be verified using the continuous variables indicating business turnover and profit.
54 Those that are statistically significant, i.e., have a p-value that is smaller than 0.05.
[55] The results for the covariates of the second part of the model are demonstrated in Annex 5 for various indicators of business performance: 1) Break-Even, 2) Business Profit, and 3) Business Turnover.

- **Number of years in Germany:** the longer that individuals, for those who have created a business, have lived in Germany, the higher the probability that their business breaks even. Each additional year in Germany, in addition to the average of 8.6 years, adds a 4.5% likelihood of breaking even.
- **Start-Up capital:** Estimations of the effect of 'Start-up capital' on the outcome variables Business Profit and Turnover. According to our estimations, ***an increase of start-up capital by 1% causes an increase of EUR 25.8 profit and a EUR 121.3 turnover***. We can see the positive elasticity from the correlation coefficients of the log transformations of 'Start-up Capital' and 'Business Profit' (.3815), and those from 'Start-up Capital' and 'Business Turnover' (.2423) in the Figures below.
- **Business coaching:** Even after taking into account the positive effect of business coaching (from BID or not) at the stage of business creation, we find a positive association with the likelihood of breaking even. ***Having received business coaching is associated with a higher likelihood of breaking even by 15.9%.***
- **Confidence in one's ability:** Whilst confidence in the ability to start and run a business had no effect on starting up, it is positively associated with breaking even. Whilst the literature generally finds a positive relationship between confidence and business performance (see Annex 2), this finding has to be taken with some caution. This is because, the correlation might suffer from temporal precedence since the question was asked retrospectively to entrepreneurs, and those who perform better might consequently report a higher confidence in their business skills.

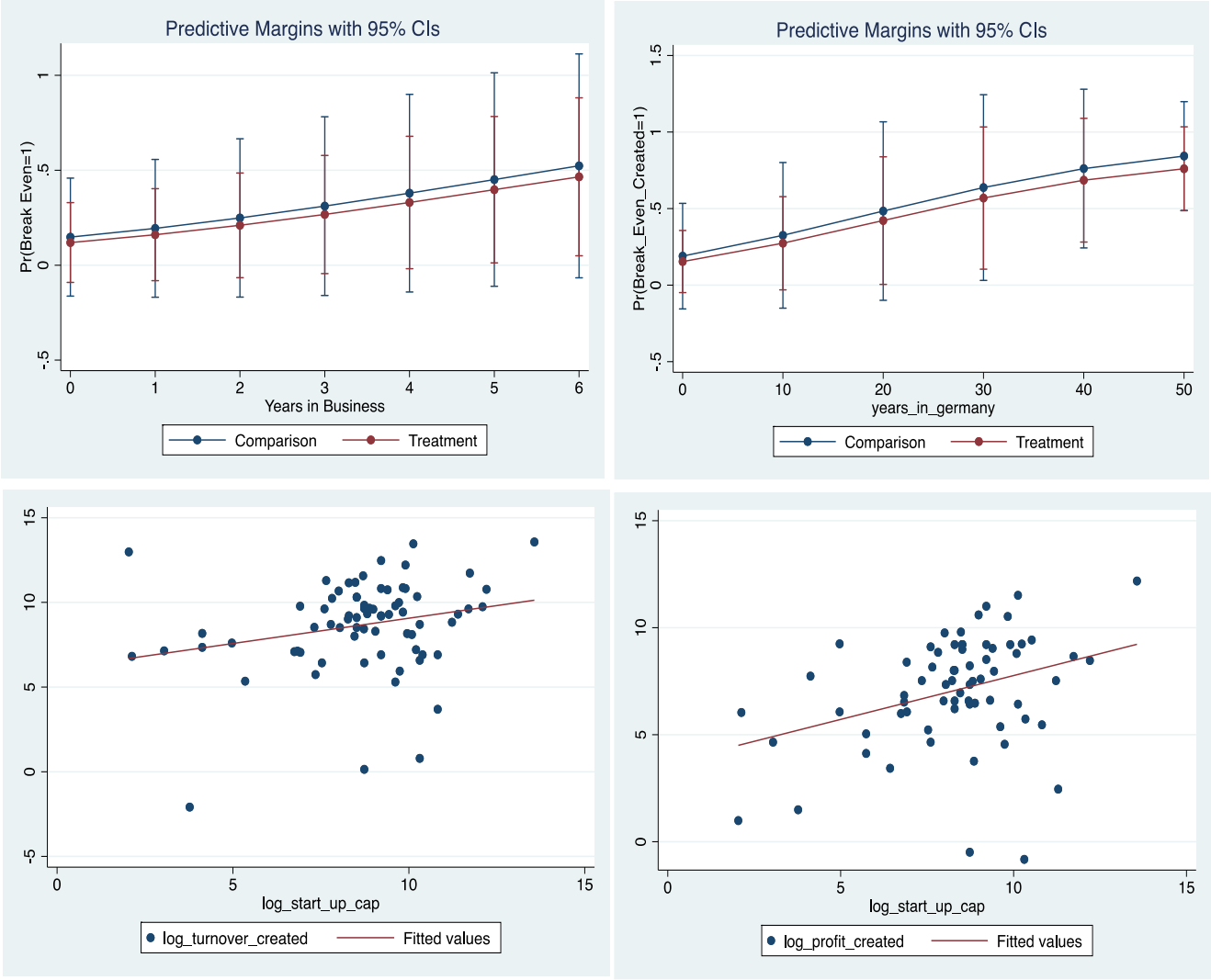
Disabling Factors:

We did not find any disabling factor for business performance.

Neutral Factors:

- **Gender:** Once the negative effects of business creation are taken into account, gender does not seem to make a difference to the probability of businesses breaking even
- **Employment:** After taking into account its effects on business creation, we do not find a statistically significant association between being employed and breaking even
- **Relevant Work Experience:** The number of years of relevant work experience in the field of the business idea has no statistically significant effect on the likelihood of breaking even
- **Network:** After taking into account the effect of a large personal network of entrepreneurs in the stage of business creation, we do not find that the number of family and friends who are entrepreneurs effects the likelihood of breaking even. In addition, we do not find that having received networking activities (from BID or others) has a statistically significant correlation.

Figure 28: Factors Influencing Business Performance



Box 6:Gluten-free pasta made of cassava from Indonesia: female enterprise

Background & Motivation for starting a business: Ms Widya, aged 46 years, graduated with a Master in Logistics and Production at the University of Duisburg/Essen in 2004. She returned to Indonesia, where she worked for two years and then became a mother. The doctor diagnosed a problem with her child's digestive system and advised gluten-free products. However, finding diversified, healthy, and locally produced gluten-free products is challenging in Indonesia. Most were imported, and there was no locally produced gluten-free alternative to rice, especially for pasta and bread. In 2018, she decided to resign and become a full-time mother. This was also when she realised, she wanted to create her own business. She started Lula Pasta in 2018, gluten-free pasta made from cassava flour.

Learning about BID and Applying: She is part of an alumni community from the University of Duisburg/Essen. When the university shared the GIZ BID programme e opportunity, she applied in 2019. When she applied for the BID, she had just started her own business. At that time, she did not know how to market her product, scale up her business, and produce the product very well. Before joining BID, she did not know about the competitors, had little understanding of the target market and only sold her product to retailers.

BID Support Received: In her interview, she stated that BID helped improve her business "*BID helped to make the business idea unique and to sharpen my eyes for market penetration."* Ms Widya participated in the Bootcamp, where she learned about business models, penetrating the market, and calculating the costs. She also received private coaching. Most important for her was the knowledge from the coach, who had much experience in food technology and safety and who taught her about the production techniques and scaling up. She learned how to add value to the product and compete in the market. In her own words, she only received a much better understanding of running a business when she joined BID. She also mentioned the business model compass to be very useful and the networking with other entrepreneurs. After BID support, she managed to package the product better and have a better production process. Ms Widya also found the financial support helpful. She received approx. EUR 2569,69 in grant money from the Industrial and Agricultural Ministry, which helped her register the business and get a business licence.

Learnings for BID: Ms Widya thinks it would be helpful to get more flexibility in using the grant money. She needed to use the money from BID to buy equipment for the business, which was not allowed and only granted after discussing with the mentor. What stood out to her during the BID support was the short time of three months when a lot had to be organized to get the business registered. As such, she agreed with the coach to get slightly more time. She also would have liked to learn more about public speaking, clever lobbying, marketing intelligence, food business development and financing schemes for implementing a business plan. She laments that she did not receive support from BID in getting financial access to other sources. This shows that what the BID framework entails (and does not entail) needs to be communicated more clearly. Additionally, she thinks that more follow up is needed by coaches to check in with the entrepreneurs even after the official coaching is done.

Obstacles: Certification costs are prohibitive high in Indonesia. There were many steps to follow until she reached the official business registration. It is also challenging to start a business as a woman in Indonesia. The difficulty comes from the family, as the husband is often not supportive. Lula Pasta is also a women's business. She sees herself as an excellent example to other women to be a female entrepreneur.

Success Factors & Other Support Received: According to Ms Widya, the most enabling factor for running a successful business is collaboration and networking (with partners, other entrepreneurs, the customers etc.). For example, she has built collaborations with sauce and cheese producers. Sometimes they can market their products jointly. After winning the Food Innovation Award in 202, she received technical support and a grant of around EUR 2560,09 from the Industrial and Agricultural Ministry in Indonesia. The ministry supported her in getting access to the market and finding a business match (finding suitable customers for her business). The retailers also supported her with advice on running the business, especially marketing the product.

Business Description & Impact on SDGs: The business is innovative, it offers pasta made from a local ingredient, cassava flour, natural colouring from vegetables (also to increase nutrition), no preservatives and no monosodium glutamate (MSG [56]). She sells the product locally in Indonesia to retailers or on Tokopedia and Shopee and estimates to have reached 5,000 customers, primarily health-conscious consumers, and health stores. She has worked with 10 suppliers, 5 employees (4 women and 1 man), and 20% market share.

- ***Zero Hunger (SDG Nr.2):*** *the Ministry of Agriculture in Indonesia focuses on replacing wheat with cassava/and other local products to wane reliance on food imports. Her business aligns with Indonesia's development goals.*

- ***Gender equality/Women empowerment (SDG 5):*** *Nearly all Lula Pasta workers are women, and the business is woman-owned.*
- ***Health & Environment (SDG Nr.3&13):*** *She uses natural ingredients in the product, which is much better for health. She is also using food-grade plastic for the packaging of her biodegradable product and, therefore, much better for the environment. Therefore, she avoids regular plastic, which often causes damages for the environment.*

Economic growth (SDG Nr. 8): *She is making an annual profit of EUR 7200,25. The business was started to be prepared for retirement and uncertainties. So, all the profit, about 30% of her total income, is saved.*

Sustainability and Business Outlook:
COVID-19 contributed to a positive impact because people became more concerned about healthy products, according to the business founder. Ms Widya expects to increase the profit by 200% this year, as the market has grown, and there are plenty of opportunities. She plans to increase production, develop new products, export the products to Asia (Singapore, Philippines, Saudi Arabia) and Africa, and collaborate with other food industry entrepreneurs. She also plans to get

[56] MSG is a flavour enhancer, that has a reputation for being bad for human health, although the scientific evidence is ambiguous. https://www.healthline.com/nutrition/msg-good-or-bad

funds from the bank for exporting the products. She is thus now looking for support on business scale-up and technology update and support.

3.3. Efficiency

In this section, we assess the efficiency of BID. **To assess efficiency, we use the 'follow the money approach'**. This is a standard efficiency measurement method in central project evaluations of the GIZ. The method implies tracking expenditures allocated to the project and assigned to the corresponding outputs. Two types of efficiency are distinguished: production efficiency and allocation efficiency.[57] The former evaluates the transformation of inputs into outputs, while the latter looks at the transformation of inputs into results at the outcome and impact level. The analysis is conducted for both the output and outcome level for BID participants (treatment) and BID applicants who did not get selected (comparison). It should be noted though that not all outcomes could be quantified and assigned a monetary value. The results are presented in table 5.

3.3.1. Inputs

Between 2016 and 2021 BID supported 429 business ideas. The total project-related costs paid out by PMD between 2016 and 2021 are at least EUR 1,201,127.84 which includes the costs of Kompass, the costs of local incubators in the different partner countries and the grant dispersed to BID participants between 2016 and 2021 (for those who 196 participants who participated in the survey). The total capital inputs by the 196 BID survey participants amounts to around EUR 5,349,283.

3.3.2. Output

Amongst those 196 BID participants, 130 had created a business at the time of this survey. This is a business outputs rate of 66.3% for BID participants, compared to the same being only 57.3% for non-supported BID applicants. It should be noted that the number of BID-supported business ideas which created a business is likely already higher. For instance, for the year 2021 the survey reports three business creations, whilst BID internal monitoring data already counts seven. Amongst the 130 created BID-supported businesses, 70% are still active and 36% break-even (meaning their revenue covers their expenses).

3.3.3. Outcomes

Many of the outcomes are further described in detail in chapter 4.4. In total, the 130 created business that received support from BID have a) reached 305,483 customers, b) 634 suppliers, and c) 133,462 other beneficiaries. Whilst non-BID-supported business have reached more customers (a total of 3,136,620), BID supported business have reach more other beneficiaries. This is because, as we will see in chapter 4.4, BID-supported businesses have a larger social impact, related to the Sustainable Development Goals. As such, they have a larger influence on the wider community and society, which other beneficiaries fall under.

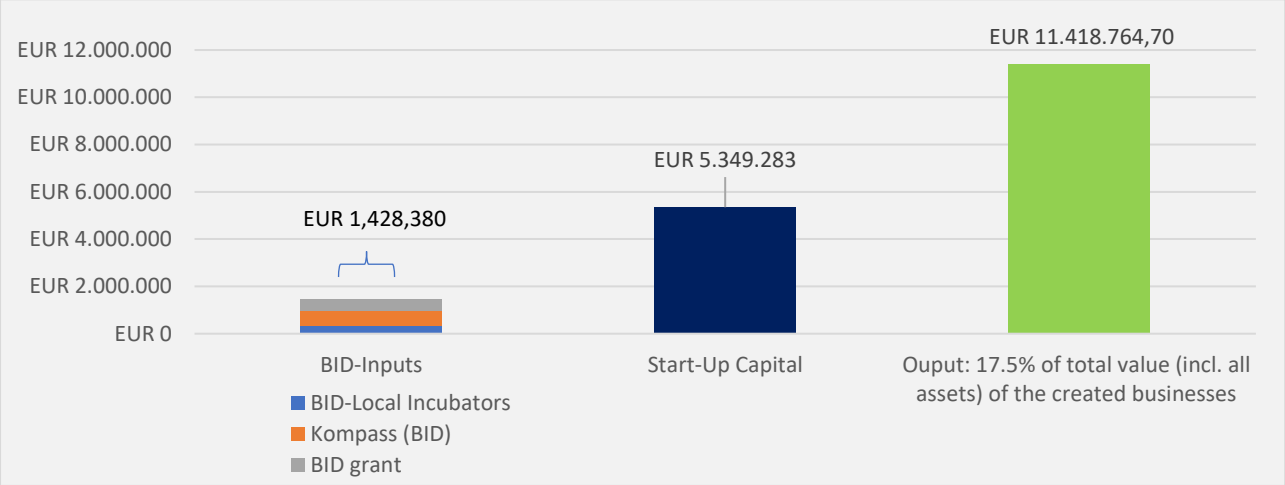
Besides, BID supported businesses have created employment for 739 people, amongst which 42% women. As evident from table 5, the average generated number of jobs is similar to non-BID supported business, however BID-supported business have a higher share of female employees and

[57] Palenberg (2011). Tools and Methods for Evaluating the Efficiency of Development Interventions. Bonn, Germany, p. 8

pay a higher share of their employees a living wage (above market standard) relative to non-BID supported businesses. Whilst the total generated income for employees is not known, the total generated income for the business owners of BID-supported businesses amounts to EUR 413,962.18. Furthermore, BID supported businesses have in total generated a turnover of EUR 2,635,333.0 and a profit of EUR 315,754.70. Lastly, when asked what they estimate to the value of their business to be if they had to sell it tomorrow, including all assets, the value of BID-supported businesses amounts to a total of EUR 65,250,084.00

What is the total amount of income added (e.g., amongst the owner, employees, suppliers, etc.), market value, and/or savings created (e.g., amongst customers) by the business? How does that compare with the cost of the intervention (made by PMD)?

***Figure 29:* Tentative Costs-Benefit Estimates**



BID-support costs vs Business Value: The total participant-related BID input costs between 2016-2021 were EUR 735,498.04 without grant amount, and EUR 1,428,379.85 with the grant. Additionally, the start-up capital for the businesses was EUR 5,349,283. In terms of output, the total value (incl. all assets) of the created businesses by BID participants is EUR 65,250,084.00. However, this has to be taken with some caution as we cannot claim that these businesses were created solely because of the BID. As we will see in the next chapter, BID increases the likelihood of starting up by 17.5%. Thus, even if we claim only 17.5% of the total value of the created business (EUR 11,418,764) this still exceeds the sum invested by PMD.

Table 6: Costs-Benefit per Outcome/Output of BID between 2016-2021

	BID - Internal Data	Survey: BID Participants
BID Participants/Applicants (2016-2021)	429	196
Inputs		
BID -related input costs		
Costs of Kompass (2019-2021)	€ 619,244.56	
Costs BID Local Incubators (2019-2021)	€ 343,505.49	
BID Grant disbursed to survey respondents (estimated by participants)		€ 465,629.80
Start-Up Capital		
Total number		€ 5,349,283.00
Average number		€ 34,290.28
Output		
Total number of Businesses Created	105	130
% of total respondents	24.5%	66.3%
% Of created businesses breaking even		33.85%
% Of created businesses still active		70.00%
Total number of Customers		201,862.0
Average number of Customers		2,166.5
Total number of Suppliers		907
Average (median) number of Suppliers		6.9
Total number other beneficiaries		53,116
Average number of beneficiaries		1934.2
Total number of (all types) employed *[women]*		739 [310]
Total number of (full-time) employed [women]		611 [292]
Total number of seasonally employed (+/- 8 weeks p.a) [women]		128 [18]
% female employed		42.7%
Average number of employed (all types)		5.7
% of staff paid a living wage (above market standard)		63.0%
Income from Business		
% of founders receiving an income from the business		50.0%
Total Annual Income for Business Owners		€ 413,962.80
Average annual income from business		€ 4,499.60
% of businesses breaking even		36.2%
Total annual turnover		€ 2,635,333.0
Average turnover		€ 27,065.3
Total annual profit		€ 315,754.70
Average annual profit		€ 3,255.20
Total value of businesses *incl. assets (estimate by founders)*		€ 65,250,084.00
Average business value		€ 717,033.90
	BID - Internal Data	Survey: BID Participants
BID Participants/Applicants (2016-2021)	429	196
Inputs		
BID -related input costs		

3.4. Impact

In this section, we analyse the overall impact of BID, and the direct and indirect effects of the created businesses on beneficiaries.

What would have been the situation had there been no BID support?

To estimate the causal relationship between BID support and its target, i.e., converting business ideas into businesses which are still active 6 month after creation, we compare the estimates for our treatment and comparison group. As shown in table 5, 66.3% of the treatment respondents (BID-supported business ideas) created a business relative to 57.5% of the comparison group (non-supported BID applicants). Furthermore, 70.0% of BID-supported business are still active compared to 66.2% of non-BID supported businesses.

However, even though the treatment and comparison groups are similar in terms of most socio-economic characteristic, as shown in chapter 2.5.1 (see also Annexure 2), the results are still likely influenced by selection bias and confounding, as the treatment and comparison group were not selected at random (before the intervention). As such, we match treatment and comparison respondents along a set of observable characteristics that best capture the respondent's situation before the intervention (BID support or lack thereof). This helps us isolate the effect of the treatment (BID support services) away from characteristics that may influence the treatment decision and determine the Average Treatment Effect on the Treated (ATT).[58] It should be noted, however, that the estimated ATT is extremely sensitive to the baseline covariates used for matching. If unobservable characteristics exist between the treated and untreated respondents PSM will still provide biased estimates. The set of baseline covariates used to generate propensity scores[59]are shown in Table 6.[60]

Table 7: Baseline Covariates used to Generate Propensity Scores

- Gender
- Age
- Education
- Occupation
- Years in Germany
- Country of Origin
- Year of BID application
- Income at time of application
- Relevant work experience
- Understanding of customers
- Understanding of market
- Understanding of competition

Which matching technique is best suited for causal inference is widely debated (see for instance Stuart, 2010). Some common methods are 1) nearest neighbour matching (with a random draw or equal weights), 3) stratification matching, and 4) Kernel matching with bootstrapping (we use 50 repetitions). As different methods lead to different ATTs, we use different techniques to ensure robustness of the results. We rely on the matching technique which grants us the highest sample (N)

[58] PSM compares treated and comparison individuals who have similar 'propensities or likelihoods for receiving the treatment, conditional on a set of covariates.

[59] Probit regression was run to generate propensity scores ranging from 0.1 – 1. Further, we ensured that the propensity score is balanced between treatment and comparison groups (the program created 5 blocks (to ensure mean propensity score is equal for treated and control groups within each block) and the region of common support (To ensure the propensity score have a similar distribution ("balance")) in the treated and control groups was 0.22 - 0.99). After matching, the program retained 156 observations from the treatment group and 91 observations from the comparison group.

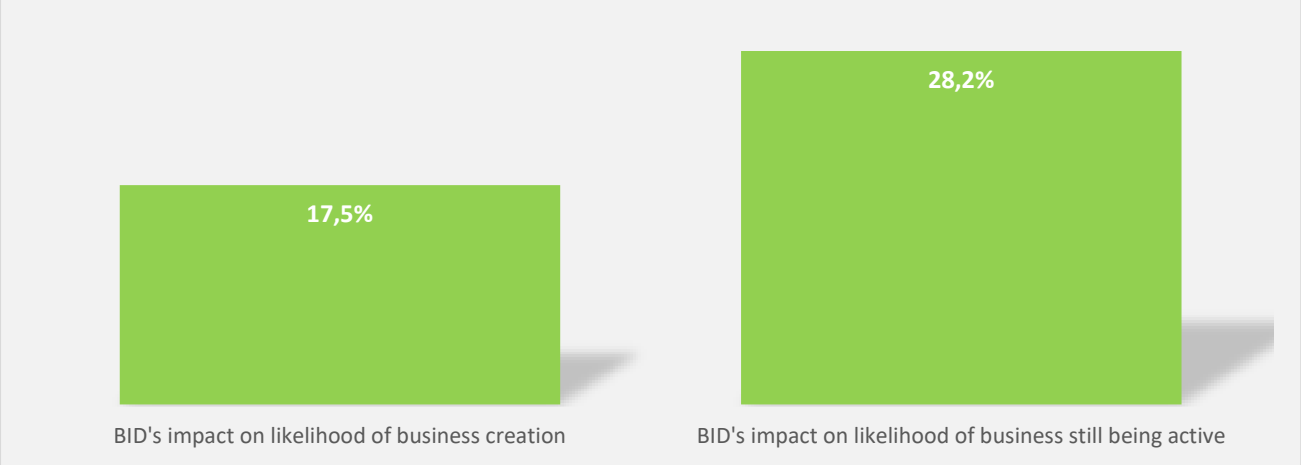
[60] Some Covariates such as 'Education' and 'Start-up Capital' have been excluded from the list of covariates. This is due to when they were included, the observations for the ATT estimation with the Stratification method for number of treated fell from 156 to 116 and the number of control fell from 91 to 64. Please note, however, that when the covariates of 'Education' and 'Start-up Capital were included, the results were consistent for the ATT estimation (as shown in Table 6) with 0.173, std. error of 0.105 and t-value of 1.649 for the ATT estimation with the Stratification method.

of treatment and comparison respondents, recalling that we require 56[61] N minimum for each group to ensure sufficient statistical power. When we have two results that are very similar in N, we rely on the technique that reports the lowest standard error. The results are shown in table 7, which illustrates that **BID support leads to a higher likelihood of creating a business by 17.5% and of the business still being active by 28.2%.**

Table 8:Estimation of the ATT of BID Support

Matching Technique	Treatment (N)	Comparison (N)	ATT in %	Std. Err.	t
Business Creation					
Nearest Neighbour Matching	155	56	16.1%	0.107	1.511
Stratification	155	104	17.5%	0.079	2.138
Kernel matching	**155**	**104**	**17.5%**	**0.069**	**2.543**
Business Still Active					
Nearest Neighbour Matching	155	36	15.2%	0.117	1.300
Stratification	**155**	**104**	**28.2%**	**0.041**	**6.935**
Kernel matching	155	104	28.1%	0.139	2.020

Figure 30: Attributable Impact of BID after Propensity Score Matching



How many people, directly and indirectly, benefited from the set-up of the business? Are there differences along the lines of gender?

Suppliers: On average, BID-supported businesses have worked with 6.3 suppliers, which is even higher –8.1 suppliers, if we exclude those businesses which report zero. The data is widely dispersed, ranging from zero suppliers to 70 suppliers. Of the 130 established businesses, 79 (61%) have started working with suppliers, 10 businesses (13%) have not yet worked with any suppliers, and 25 (33%) did not provide information.

[61] N=70 including 20% loss due to matching.

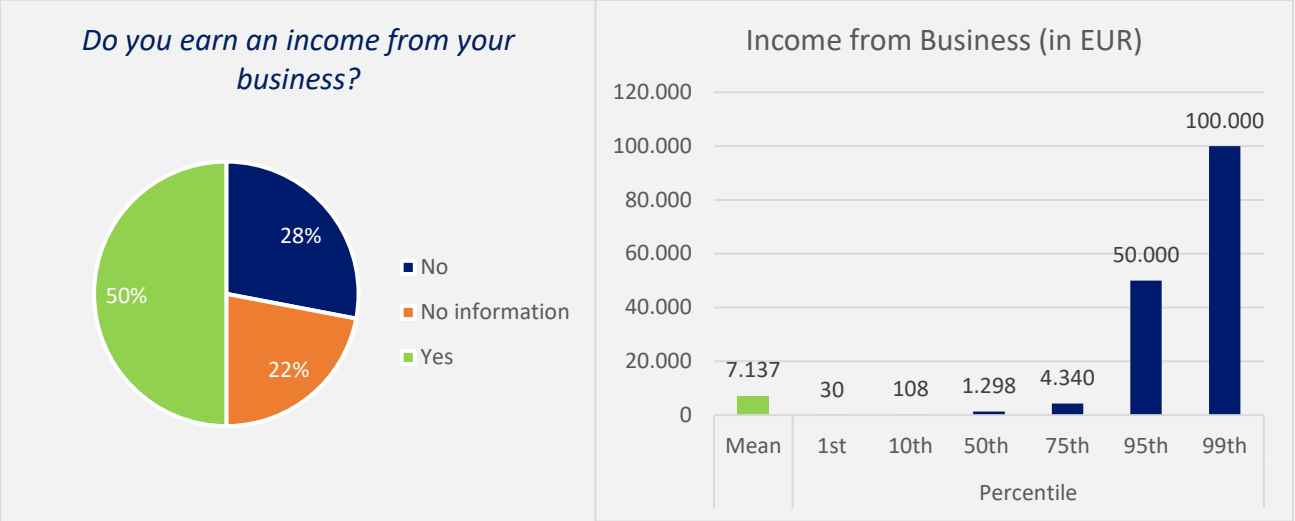
Employees[62]: On average, BID-supported businesses have 5.7 employees. The data is widely dispersed, ranging from 1 employee (incl. the owner) to 54 employees.
Amongst the total of 717 employees that BID businesses work with, most are full-time employed (83%), whilst the remainder (17%) mostly work seasonally around 8 weeks per annum. The general share of women amongst the employees is 42%. The female share is higher amongst the full-time employed (48%) relative to the seasonally employed (14%).

Figure 31: Number of Suppliers and Employees

Income of Employees: Amongst the 739 employees that the created BID businesses employ, **63% are paid a national gainful salary/ wage** as per the laws of the respective country, i.e., **above market standard.** The actual income from the business is, however, only known for the business founders of the 130 created BID-supported businesses.
Half of the business's owners earn an income from the business. For those with an income, the with average annual income from the business is EUR 7,137, and ranges from EUR 30 (minimum) to EUR 100,000. The share of the income derived from the BID supported business relative to total annual income of all 130 business founders is 18% (31% amongst those 65 who earn an income from their business). Many business founders earn their other income from salary or wages (49%), another business (25%), dividends and return from investments (8%), as well as support from family and friends. Only 3% reported not having any other income source than their business.

[62] The survey form asked for all employees (m/f), part-time (m/f), and seasonal (m/f). As SurveyMonkey does not allow for controls, unfortunately, the data did not always add up. To the extent possible, the evaluation team clean and transformed the variable, based on the answers provided by respondents.

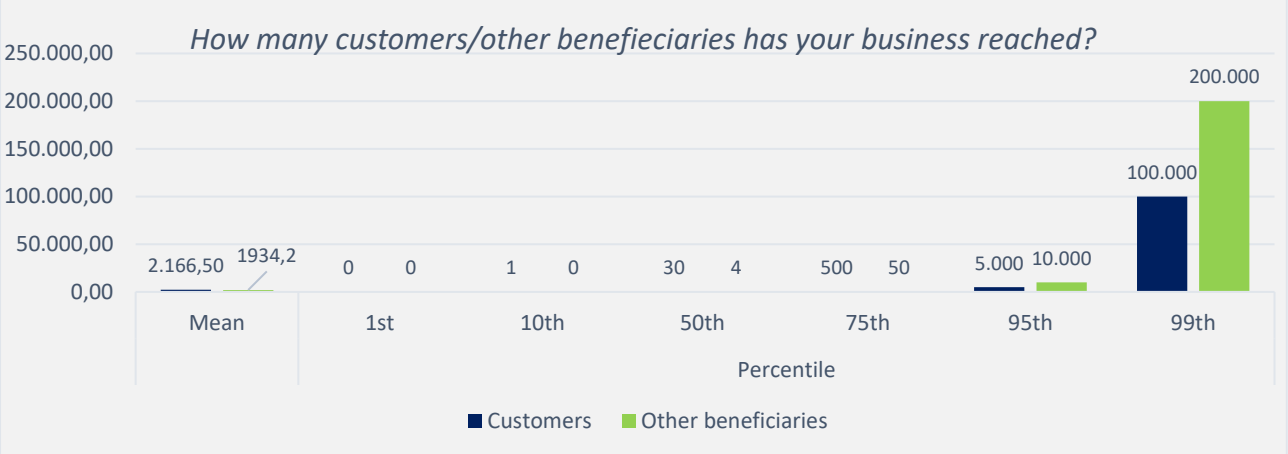
Figure 32: ***Personal Income from Business (N=130)***



Customers: On average, BID-supported businesses have reached 1,887 customers, which is even higher – 2,039 customers, if we exclude those businesses which report zero customers. The data is widely dispersed, ranging from zero customers to 100,000 customers. Of the 130 established businesses, 99 (76%) have started working with customers, 8 businesses (6%) have not yet reached any customers, and 23 (18%) did not provide information.

Other beneficiaries: Given the SDG-relevant nature of BID-supported business ideas, many also have an influence on beneficiaries other than customers, suppliers, or employees. Some examples of other beneficiaries are provided in box 8. Often times these can be people in the wider community the business operates in. On average, BID-supported businesses have reached 984 other beneficiaries, which is even higher – 1,155 other beneficiaries, if we exclude those businesses which report zero. The data is widely dispersed, ranging from zero to 20,000 other beneficiaries. Of the 130 established businesses, 46 (35%) have started working with other beneficiaries, 8 businesses (6%) have not yet reached any other beneficiaries, and 76 (59%) did not provide information.

Figure 33: Number of Customers and Other Beneficiaries



Box 7 exemplifies the profile of customers, suppliers, employees, and other beneficiaries that the businesses have reached.

Box 7: Customers, Suppliers, Employees, and other beneficiaries of BID-supported Businesses

Waste Management Business in Indonesia: A business in Jakarta, Indonesia operates in the waste management sector. Its product and service offerings are related to integrated waste management and waste refunding services using an android-based collection mechanism. The business also offers an upcycling platform. Its customers are consumer of upcycled products in Jakarta and offers them a systematic way to get money from the waste through an integrated platform. So far, the business has reached 50 customers. Its suppliers are households, waste banks and the Government, of which two suppliers are regulars. The distributors are environmental communities and unemployed people. The business has three employees, two men and one woman, in addition to the same number of temporary workers. As such, half of them are paid a gainful salary. Indirectly, the business benefits the larger community by upcycling waste products and thus reducing pollution.

Clean Energy Business in Colombia: A business in Colombia works in the market of clean energy generators in Colombia. It offers cheap and reliable clean energy generators made by locals with high-quality standards. Its customers are young farmers, tourist eco places, and coastal hotels, of which it has worked with 5 so far. The business has one employee, the business owner (male), and no suppliers so far. The business has a positive effect on providing clean energy in Colombia.

Health Business in Indonesia: A business in Indonesia, in the pharmacy and health sector provides tailored solutions to researchers, industry, academia, and the hospital market. The business estimates to have reached 1000 customers so far. The business has so far worked with 5 local and foreign manufacturers (suppliers). The business has 6 employees, 3 women and 3 men, which are all paid the nationally gainful salary. In terms of other beneficiaries, the business mentioned having had an impact on 10 health workers in terms of improved lab skills and calibration services. The business has a positive effect on improving health care services in Indonesia.

What is the impact of BID-supported Businesses on the SDGs?

As indicated in chapter 1, figure 3, BID supported businesses contribute to a wide range of Sustainable Development Goals. We further elaborate on the impact that BID-supported businesses have on some SDG by means of Box 8, which exemplifies some insights from the qualitative interviews with entrepreneurs.

Box 8: Contribution of Businesses to Sustainable Development Goals

SDG1: No poverty: Whilst no one single business that was interviewed undertakes activities just focuses on reducing poverty, all interviewed businesses do so indirectly, e.g., by offering employment opportunities in their country of origin.

SDG 2: Zero Hunger: A BID participant from **Nigeria** aims to reduce food wastage caused by improper food processing and storage. The business idea is to have a warehouse in Nigeria where they can store food items from the farm in a hygienic way and at the right temperature, and then process them.

SDG 3: Good Health and Wellbeing: A practicing nurse with over 10-years' experience in the medical field in Germany has started a business in **Serbia**, where she offers a counselling centre for breastfeeding, mental and physical development for new-borns. She has an online page to set up reservation or consulting hours. She offers consulting hours, home visits and educational

seminars. Everything is online and when she is in Serbia, also in person. The business has two employees.
SDG 4: Quality Education: A BID-supported business in **Colombia** provides a technical education platform online in Latin America, especially in Colombia.
SDG 5: Gender Equality: We did not find a business that has gender-focused activities but many BID-supported businesses focus on employing women or have them as their end customers. In fact, nearly half of all employees of BID-supported business are women.
SDG 6: Clean Water and Sanitation: A BID participant from **Indonesia** has started an engineering consultancy company, providing consultation in the field of waste water, sanitation, and renewable energy.
SDG 7: Affordable and Clean Energy: A BID participant with a Ph.D. in Food Security from Germany, started a business in **Cameroon** that offers biogas made of organic waste. More specifically, the business recycles waste from markets to make gas, which did not exist before in Cameroon. The founder developed a bag pack so sellers can get the gas directly to clients. Also, the business's gas is cheaper than traditional gas.
SDG 8: Decent Work and Economic Growth: All businesses directly contributed to this SDG by providing employment opportunities, 54 % of the employed persons are paid over the market rate.
SDG 9: Industry, Innovation, and Infrastructure: A BID-supported business offers consulting services in the fields of water analytics, chemical analysis, and GMP (Good Manufacturing Practices).
SDG 12: Responsible Consumption and Production: A BID-supported business in **Serbia** is producing handmade jumpers and clothing pieces from fairtrade materials with traditional patterns while supporting a group of women who may not be able to get work in another way.
SDG 13: Climate Action: A BID-supported business in **Vietnam** offers climate-related consulting services to help institutions to generate a GHG inventory report and to reduce GHG emissions in Vietnam.
SDG 14: Life below Water: A BID participant from **India** did his master's in informatics at the University of Bonn and then worked at the Max Planck Institute in Bioinformatics. He started a business in India that uses a data system to help farmers decide on the amount and type of fertiliser and pesticides to use depending on their land and crop, as many tend to overfertilize. An excess amount of fertiliser seeps down into the ground water and pollutes water bodies such as likes and rivers.
SDG 15: Life on Land: A BID-participant from **Vietnam** started a consultancy form in the field of forestry (see box 2).

Are there any other positive non-intended side effects? Are there any spill over and/or multiplication effects? In other locations/regions?

As unintended side-effects, most of the 25 BID participants, who were interviewed in-depth (out of 30 interviews, of which 5 were with the comparison group), mentioned increased confidence in their professional skills and an increased professional network. Others mentioned more specific networking examples, such as making a cooperation with the Tunisian Central Bank, being offered an opportunity to teach at the University of Rabat (Morocco) and meeting other diaspora entrepreneurs.

Box 9: Case Story from Tunisia

Background & Description of Business: Mr. Ouanes, originally from Tunisia came to study in Stuttgart Germany 10 years ago. He participated in BID in 2018, received support from PMD and has developed Natulyn: a baby food production business. He and his partner came up with the idea of producing baby food when they were on holiday in Tunisia (whilst living in Germany) and they realised that there was no baby food without sugar in stores, so they had to always bring it with them from Germany. This inspired them to make use of their education as food scientists and engineers to start producing baby food with Tunisian produce. Being selected into BID gave them the needed push to start. The business has a direct impact on Zero Hunger (SDG Nr.2) by production of baby food with local Tunisian ingredients to support local producers. They produce baby food in glasses and plastic containers (fruit, vegetable, mixed vegetable fruit, wheat), made from local Tunisian ingredients, specifically tailored with Tunisian recipes (including a lot of dates and fresh fruit), which are the first of their kind and currently the only ones in the Tunisian market preparing baby food without sugar and conserving agents. The recipes are done after surveys among customers, to ensure that the ingredients are popular. These surveys are done on social media. Another innovative aspect is that they encourage customers to bring back the used containers to receive vouchers, to increase recycling of glass.

Challenges:

- The business owners state that their age has been affecting them negatively, as people do not trust them to create good products as they are young. To mitigate this, they try to not put themselves very visible as company owners, but as employees who focus on working on their products' reputation.
- The bureaucracy in Tunisia made the foundation very difficult. They were often asked why they returned to Tunisia instead of staying in Germany (this was both from people around them but also government representatives they dealt with), which was demoralising.
- COVID made it difficult, as they started production and marketing merely two weeks before the lockdown started. Because of this, they had to change their business model, so they started targeting pharmacies, as these remained open and, there was no baby food on their shelves. Further, supermarkets then decided to not take any new products either. This only changed a bit later, when they approached the big three supermarkets (Carrefour, Monoprix, and a third one) and created a connection with them.
- Lastly, there has been a sharp increase in competition in baby food. They mention that the quality of these products is low, though, and the companies have shut down after a year due to this. They thus now have to work more on remaining competitive on the market and to make sure their Unique Selling Proposition (USP) of high-quality products remains what is demanded by customers.

Most Enabling Success Factors:

- The team is the most important factor. *The business founders work well together and discuss everything that happens to remain innovative and weather the COVID crisis.*
- Honesty with their customers regarding quality and ingredients. Sticking to the high quality of their products is crucial, especially as it is food for babies, and thus high quality is the most important factor for their products and the babies' families
- Being customer oriented. The business is very active on social media to receive feedback for the products directly from the families. They then use this data to inspire their product development.

Sustainability and Outlook:

The entrepreneur is confident that his product is good and that it can remain the market leader. Currently, they assess their market share at 60%. The start-up currently employs 4 men and 11 women and achieved an annual turnover of EUR approx. 149,452,82 in the past year, and about EUR 12,454,40 profit. The business owners derive 100% of their income from the business and are certain to increase business growth in the next 12 months.

Recommendations for BID:

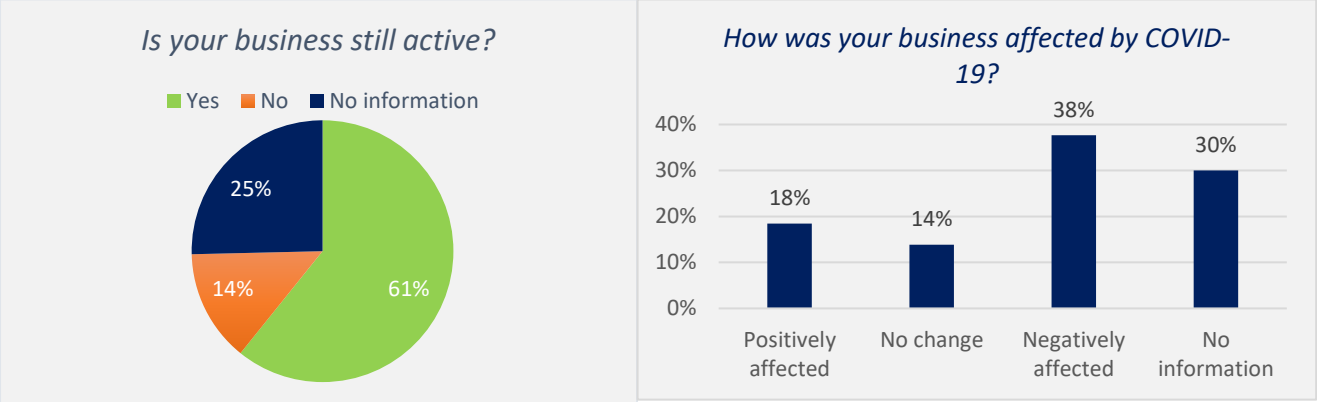
The start-up had hoped for more communication between them and GIZ, which was halted due to the Covid-19 crisis. They mentioned that an Alumni Network could be useful for them to learn from other participants. They also said that they would wish for continuous or longer support, especially as throughout the project, there are different needs. For instance, at the time of the foundation, other questions arise than during the growth period (for instance, they would like to receive technical support on the topic of exporting products). Thus, long-term support would be useful to address these shifting needs.

3.5. Sustainability

What did happen after the PMD support stopped?

Out of 130 established enterprises by BID participants, 79 (61%) are still active. When asked why they closed their business, many stated COVID-19 as a reason. More than one third (38%) of businesses owners stated that Covid-19 had negatively affected their business. They experienced a drop in profit and/or had to let employees go, whilst 18% saw a positive effect, such as increased demand for their products/services.

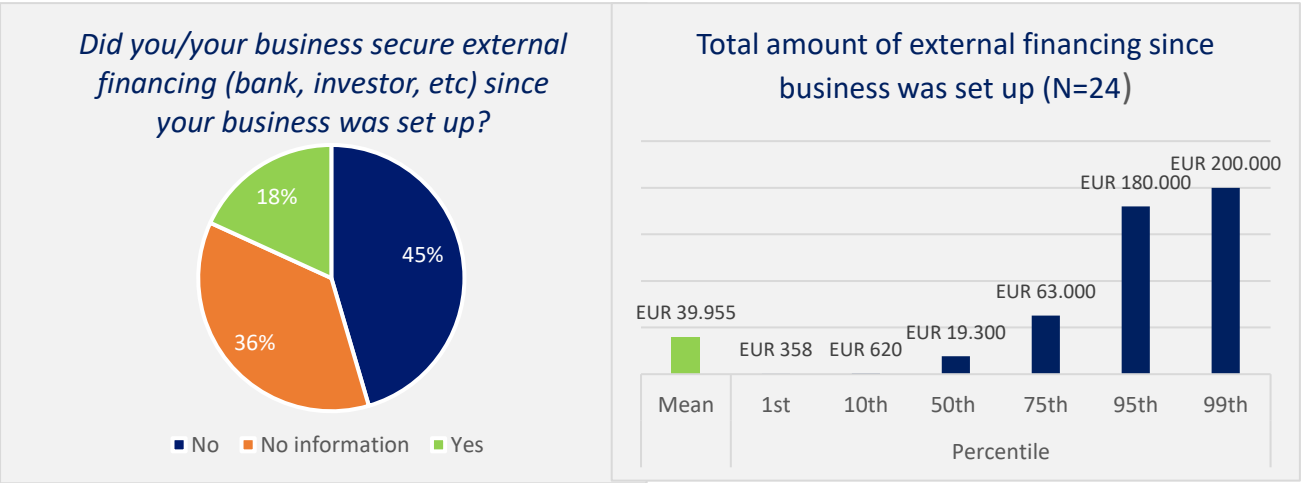
Figure 34: Durability of BID businesses (N=130)



Is the business institutionalized in the local system with resource contributions other than PMD?

Amongst the 130 BID-supported established enterprises, 24 (18%) enterprises have managed to secure external financing (bank, investor, etc.) since the business was set up, with an average of EUR 39,955, whilst 59 businesses (45%) have not yet obtained any external financing, and 47 enterprises (36%) did not provide any information. The obtained external funding ranges from EUR 358 to EUR 200,000. Thus, whilst some few BID-supported enterprises were very successful in obtaining funding, the majority of businesses **struggle to acquire the necessary funding.**

Figure 35: External Funding (N=130)



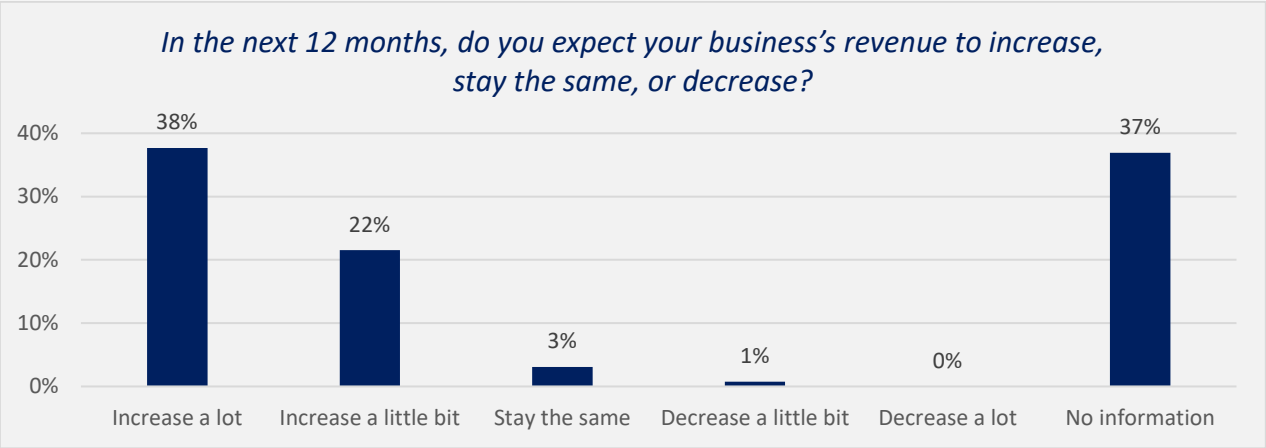
What is the economic outlook for the business?

On average, entrepreneurs rate the demand for their product/service in the market as 6.95 out of a possible score of 10, indicating a buoyant market demand. At the same time, the same entrepreneurs assess the degree of competition they are experiencing as high, albeit lower than the market demand, with an average of 6.05 out of 10 points.

As many as 48% of those who have created a business are expanding their business to other products/services and other countries, many in Africa. For instance, one entrepreneur stated, *"After our launch in Ghana, we will do a soft launch in Togo to further understand the market dynamics before a full launch of operations."* Other businesses aim to target the European and especially the

German market next. As such, 38% of the 130 established businesses expect their revenue to increase in the next 12 months.

Figure 36: Economic Outlook of the Businesses (N=130)



CHAPTER 4

Learnings for BID

Picture 10: A BID alumni participant from Indonesia.

His company provides equipment to recycle plastic into fuel, such as diesel for motor engines. He sells the machine to NGOs and local Government with the aim of reducing plastic pollution in Indonesia.

4. Learnings for BID

What can BID learn from those applicants who were not supported?

Whilst it is clear that BID support leads to a higher likelihood of starting-up and of the business still being active, there is evidence that BID-support does not lead to a higher profitability relative to those BID-applicants who did not receive BID-support but started a business. To compare, 33.9% of the created businesses that received BID support (treatment) break-even (i.e., where the expenses are at least covered by the revenue), compared to 41.6% of the non-BID supported business that were created (comparison). Furthermore, the average annual turnover (EUR 27,065.29 vs EUR 36,948.43) and average annual profit (EUR 3,255.2 vs EUR 6,210.96) is higher for non-BID supported businesses. Performing the same Propensity Score Analysis as in chapter 3.4 with breaking-even, annual turnover and profit, as outcome variable, where we match treatment and comparison respondent based on age, gender, education, country of origin, year of application, income at the time of application, relevant work experience, stage of the business idea at the time of application, etc, we confirm the descriptive statistical results. After matching, we find that BID-supported business are 2.3% less likely to break even and have a higher likelihood of reporting a lower annual turnover by EUR 25,120.06 and business profit by EUR 1,5253.9, respectively.

*Table 9:**PSM for Business Performance***

Matching Technique	Treatment (N)	Comparison (N)	ATT	Std. Err.	t
Breaking-even (in %)					
Stratification	155	104	-2.3%	0.119	-0.191
Business Turnover (in EUR)					
Stratification	155	104	-25,120.06	59750.5	-0.633
Business Profit (in EUR)					
Stratification	155	104	-1,253.90	8913.366	-0.75

It should be said, however, that **it generally takes businesses 3-5 years to generate a profit. Most BID-supported businesses in our sample are still quite young;** with an average of 2.6 years.[63] Furthermore, qualitative insights suggest that a lower profitability may be due to the different nature of BID businesses that are more socially oriented, relative to the comparison group, whose businesses are often more commercially focused. This may come with a trade-off in terms of revenue and profit. To showcase this, we compared the top-performing businesses (treatment vs comparison) which have the highest annual profit and revenue. The nature of the business, in terms of business description and customers is very different, with the treatment company being much more SDG-relevant. Yet, this entails that there may be **a trade-off in performance** (break-even, revenue and profit) **that may come with being more development-relevant as a company.**

[63] Non-BID supported businesses are, however, also quite young with an average of 2.4 years.

Table 10: Comparison of one case from Top Performers of treatment & comparison group

Performance	BID Participant (Treatment)	Non-selected BID applicant (Comparison)
Annual Revenue	EUR 700,000.00	EUR 780,000.00
Annual Profit	EUR 100,000.00	EUR 195,000.00
Description of business	This business uses an exclusive technology to treat poultry manure waste, saving water and producing a high-value fertilizer	The business provides smart products and solutions for better supervising and management
Customers	Poultry industries and municipalities	Factories and electric power companies

Is the program serving the right target groups?

Definition of Target Group: The programme targets the right group. A clearer definition of the target group is, however, recommended. Currently, BID focuses on applicants who are ready for deployment of their business idea. In fact, through the qualitative interviews, it became clear that many BID participants had already founded their business but needed help to register and fully launch it. **As many motivated and aspiring entrepreneurs (rejected applicants) seem to also start up without BID (with a lower creation rate), the question arises if BID wants to focus on only entrepreneurs who have a very advanced business idea in place.** As mentioned by some PMD country coordinators and many BID participants, businesses that have already registered their business but are still struggling could also be included, whilst those future entrepreneurs who only have a business idea (not a plan) lamented that BID no longer includes them. **Thus, it appears that a differentiation and focusing of the target group by focusing on different BID support streams could be a good option**:

- **Group 1 - Support of Business Ideas:** Support applicants who think about becoming entrepreneurs and need basic support to develop their business idea (ideation stage)
- **Group 2 – Support of Business Launch:** Support applicants who already have a concrete business idea but need help with developing their business plan and launching their business
- **Group 3 - Support of Business Development**: Support applicants who have already founded (and even registered) their business but require help further developing and expanding it.

Whilst groups 2 and 3 offer the great impact potential (e.g. in terms of contributing to SDGs), group 1 requires the most urgent support to even attain the stage that group 2 and 3 are at.

BID Approaches: Through the focus group discussion with the country coordinators, it became clear that BID should widen the offering of its approaches to different countries:

- the Alumni approach could also be favourable in some other existing BID partner countries, e.g., Ghana, Cameroon, etc.,
- The transnational approach might also be useful in Indonesia and Vietnam.

Outreach: Besides, more concerted efforts in Germany and the country of origin are needed to attract more of the target group a formal (cross-country) digital channel to distribute the programme to the alumni target groups is needed (e.g., a website). It was communicated that BID should attract more aspiring entrepreneurs who wish to make their business their full-time employment. *"People often apply, but they have other concerns in Germany (they are still students, or they are working, or they*

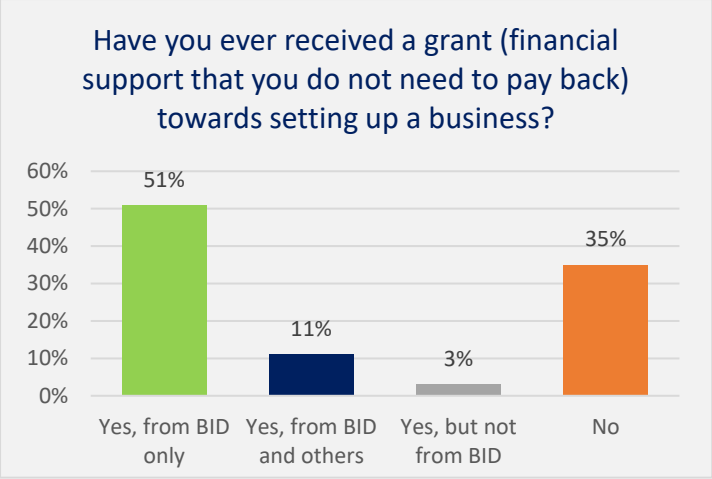
have a family) and often do not understand the level of commitment that is required in the set-up of business in their countries of origin" (PMD country coordinator).

What learning can be drawn concerning future programmatic design?

Application Process: The application and application process were perceived as straightforward by all interviewed BID applicants (N=30). They felt they were able to convey all needed information, the application is not too long or tedious, and participants did not need outside support to fill it out.

Selection Process: PMD country coordinators appreciate that on the pitch day, the jury members consist not only of Kompass, and programme members but also local incubation partners so that they can contribute their inputs as well given their experience of working with start-up in their countries. Furthermore, the interviewed BID applicants (N=30) perceived the selection process as transparent. Even those BID applicants who were rejected seemed to understand why based on the application and selection criteria.

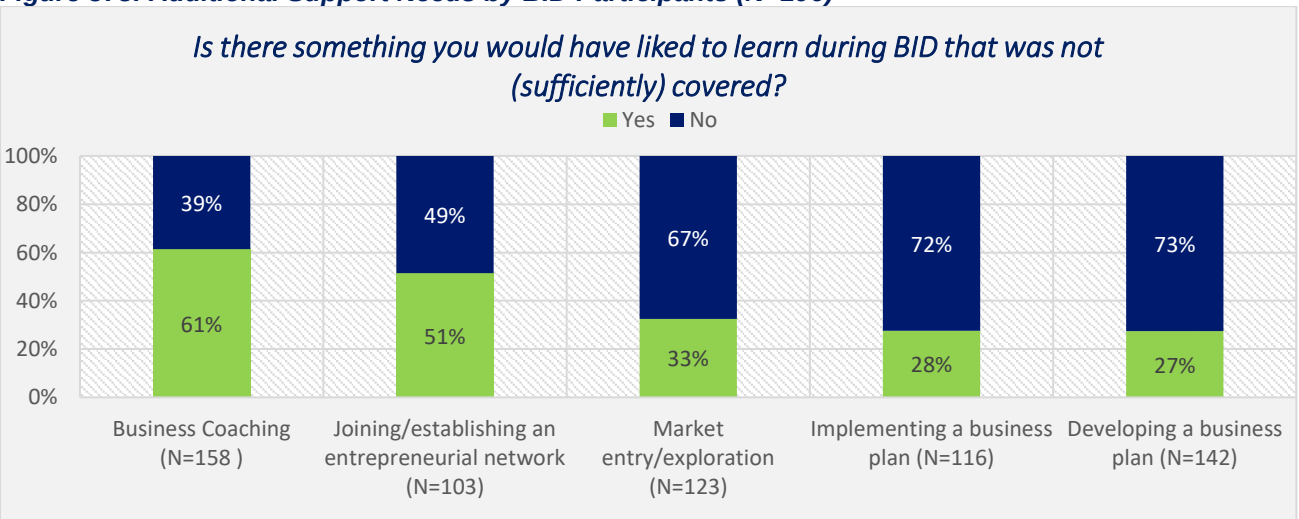
Figure 37: Grant Received (N=170)



Is the Programme giving the right support structure?

As shown in chapters 3.4 BID is helping future entrepreneurs start their businesses. Many BID participants voiced their immense appreciation for the BID support, yet participants also mentioned that some aspects were not (sufficiently) covered. The needs of participants and qualitative insights from the Focus Group Discussions are further laid down below.

Figure 378: Additional Support Needs by BID Participants (N=196)



Business Coaching: The afore-mentioned analysis has shown that business coaching is critical for both starting and running a business. Whilst many expressed their satisfaction with business coaching (in Germany and the country of origin), 61% of BID participants would have liked to learn something that was not (sufficiently) covered.

Training Content of the Coaching: Generally speaking, BID participants would like to have further coaching on three major knowledge heads:

1. **securing financing/investors for the business,**
2. **managing the business,**
3. **generating revenue for the business (acquisition, sales, and marketing).**

Under securing financing for the business, the majority of the respondents require practical solutions for fundraising and financial management, primarily on setting up a financial plan, writing proposals, finding and approaching investors, and network building, e.g., with angel investors, and venture capitalists, etc. Under managerial skills, the respondents have specified that they wish to learn more about financial management, supply chain management, HR management, taxation (especially for people working in Germany but with a business in a different country), negotiation skills, and working with remote work teams and language barriers. Some also mentioned technical skills like computer programs, trading business courses, and coding. Under generating revenue, BID participants would like to learn more about business expansion and export strategies, social media and digital marketing, and intellectual property management.

Technical Coaching Advice: Some BID participants wished that the coaching would consider the technical needs of participants (in Germany and the country of origin). The technical support requirement by participants furthermore covers a range of business-specific requests from the respondents. The respondents would like technical support in the following domains - prototyping, pilot model development, managerial skills, licensed software, support on obtaining approvals & permits, human resource management, hiring technicians, legal document support, financial accounting, access to appropriate networks, digital marketing strategies, IT security, and market access. Some other specific support requested by the respondents includes- market acquisition, information centralization, an exceptional platform for promoting products or services, connection with technical advisors as part of the coaching, a special team to coordinate with start-ups (experts), technical training & certifications, access to local and international lawyer partnerships, and internal pool of investors consisting of industry experts.
Whilst other respondents wished for local incubators that have broader areas of expertise. It was suggested that BID organise one-to-one interaction sessions with entrepreneurs from their sectors to compensate for the lack of specific technical knowledge amongst coaches.

Gendered Coaching Advice: Furthermore, several female participants mentioned that their coaches in Germany and their country of origin were male and thus did not fully comprehend the gendered administrative, time-bound and financial obstacles that female entrepreneurs encounter. For instance, female BID participants mentioned that they find it harder to be accepted into a new network, gain access to credit, be conceived as competent, or juggle the time required with starting a business with family requirements (e.g., child rearing or taking care of elderly family members) relative to their male

counterparts. It was suggested that in Germany, BID could invite successful female entrepreneurs for women-based group workshops.

Set-Up of the Coaching: Based on an interview with participants, they were generally pleased with BID, especially with the in-country support. Besides, the participants wish for more tailored coaching from BID in Germany, as they found the caching support in Germany not tailored enough. participant from Colombia mentioned that their cohort was asked to present their business idea in front of the whole group but did not receive any individualised feedback during her entire coaching time in Germany. PMD coordinators mentioned the need to standardise the set-up of local incubation support across countries.
Some BID country coordinators mentioned that BID has not yet found the right balance between standardisation and individualisation of its business coaching services. I.e., BID's services are standardised in Germany but not necessarily in the different countries. Rather in the different countries, the coaching is individualised and dependent on what the local service providers deem important in terms of coaching. Country coordinators mention that it is not always clearly defined how local incubators should complement the role of BID support services in Germany. This can be aggravated because BID works with different types of local incubators in the ten partner countries, ranging from coaching institutions (e.g., ImpactHub) to individual coaches.

Duration of the Coaching: The short timeframe of BID coaching support was mentioned as a drawback by both BID Transitional Approach Candidates and Alumni Approach Participants, but even more so by Alumni (as a one-week Bootcamp was perceived as too much in one week by several participants). Also, many participants wish for more follow-up by BID/coaches after the end of the support period. To enable this, it was recommended to provide contracts to local coaches that are longer than 12 months so they can still support with questions.
Developing a Business Plan: Most BID participants felt very appreciative of this aspect, but 27% expressed that not all necessary topics were covered. Many of the respondents have suggested learning directly from their field of business, studying similar business cases, and learning from other entrepreneurs. They wish for detailed coaching covering the development of the business plan, finance applications, implementing plans, competition analysis, pricing models, financial plans such as profit & loss accounting, knowledge on sustaining business beyond economic activities and incorporating environmental consequences. Some specific suggestion includes setting achievements with coaches and monitoring these on an agreed time.

Implementing a Business Plan: Whilst most were happy with this aspect of the BID offer, 28% wished that additional topics had been covered. Respondents have specified learning in-depth on topics such as - financial planning and setting price margins, marketing & advertising, dealing with investors, finding potential trustworthy partners, funding & investment, and negotiation skills. Some participants would like further knowledge of technical subjects like report writing and financial planning, including break-even analysis & cash flow analysis, statistical analysis, and risk analysis. Some of the specific suggestions include - preparing robust business plans for market entry, setting up a business mentorship program to conduct a routine check-up on business development, creating a step-by-step video on running a business that can be accessed through social media, and additional knowledge on remote employee management.

Market Exploration: About 33% of BID participants felt that not all necessary topics were covered. Participants highlighted the need to learn about practical aspects of business expansion, especially from domestic to international. Some of the knowledge points specified are – developing a market entry strategy (with a focus on niche and potential markets), patenting procedures, market bid data analysis, product testing, target audience selection criteria, and market research tools. Basic knowledge of research and growth strategies sustaining business and government regulations would also be helpful. Some specific recommendations include segmenting markets according to Social Economic Class (SEC), practising price differentiation, leveraging institutional research on B2B customers, and formulating price point analysis to determine the purchasing power of customers.

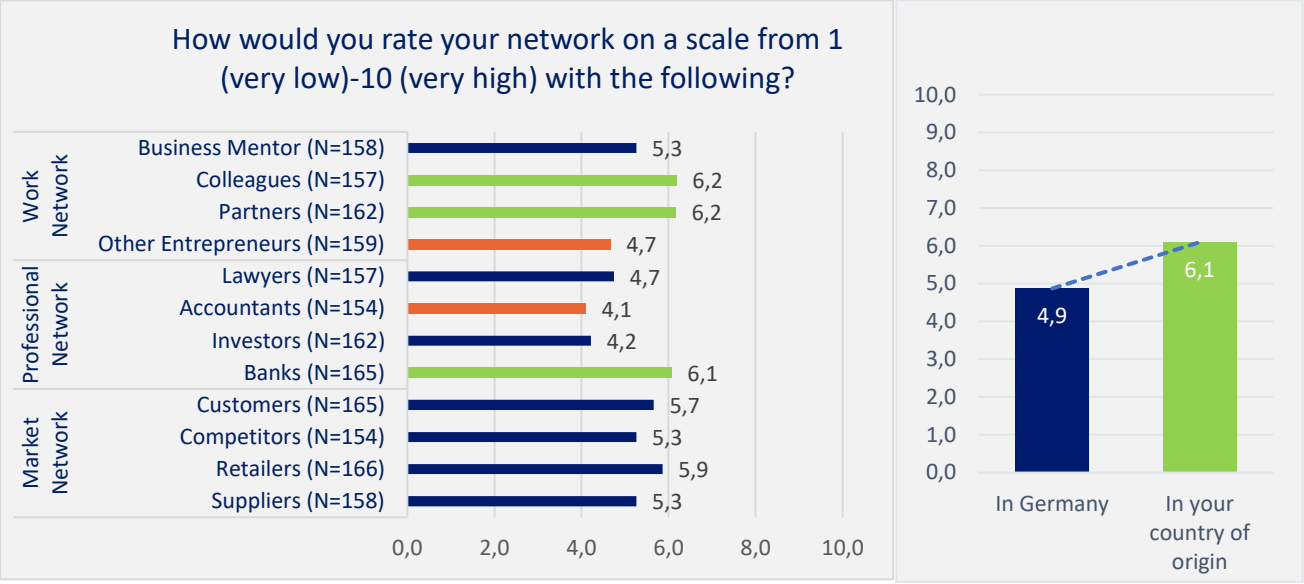
Networking: First, as shown in chapter 3.2, networking activities do not seem to impact the likelihood of starting up or breaking even, although the depth and breadth of the personal entrepreneurial network does. This showcases that networking is important. Furthermore, 51% of BID participants had expressed that not all they needed was covered.

As indicated in the figure below, **many participants rate their network of accountants and tax advisors are low and wished BID would help them make the connections.** Many of the respondents want to connect to an international network of entrepreneurs to expand their learnings further & expose themselves to the global market.

The figure below also indicates that BID participants lack a **network with other entrepreneurs. Throughout the interviews, many BID participants voiced their wish for the BID to start a cross-country alumni group so that they can get to know other diaspora entrepreneurs in their field (across the world) and country.** Some other suggestions include establishing a network in the country of origin, networks to access global and domestic markets, and a **network designed especially for women entrepreneurs**.

Additionally, BID participants mentioned that they wish to learn more about networking to build partnerships, find new markets, marketing, raise capital, finding investors and customers. **There is a consensus on the need for more robust and deeper networking in the country of origin and networking with industry specialists.** The respondents want to know about the basics of building a network and learn about its importance, describing different networking opportunities, identifying nonprofit & government organizations which offer networking opportunities, creating a detailed directory, building sector-wise networks, and methods of maintaining the associations post initial meetings, collaborating with fellow entrepreneurs. Respondents also want to learn about creating a network through targeted fairs, events, conferences, events for PMD, one-day product exhibitions, boot camps specialized in entrepreneurial skills, GIZ joint events with other entrepreneurial networks, online meetups, and knowledge sharing, and collaborating with the networks in German and Europe.

Figure 39.A & B: Participants' Assessment of their Network by Type (Left) and Country (Right) (N=167)



Grant Support: Regarding the BID grant support, this was perceived as very useful by those participants who received this. However, many also lamented that the grant only buys services, and a higher amount would be welcomed. For investment in a start-up, i.e., for covering the costs of machinery & equipment, production costs, and construction business permits, a larger amount is required. Some respondents also found the period to spend the grant money to be very short, whilst the duration of transferring the grant funds was too long (up to 6 months**). Many participants also expressed the wish for a BID follow-up Programme for successful entrepreneurs to be furnished with an additional grant.** Besides, some recommended setting up an investment fund and attracting investors from Germany.

Financing: A resounding majority of the respondents require further financial support and assistance in identifying investors and other sources of finance. This is further corroborated by the quantitative findings where only a small share of created businesses was able to secure external funding.

Follow-on Support: Together with a longer support period, many BID participants wished for more support even after creating the business, especially to get **support on running a young company**. This is further corroborated by the fact that many created enterprises do not yet break even nor generate a sufficient income for the owner.

How can BID further support those success factors (internal and external) that lead to enterprise creation? What differences are there between sites (countries, regions within countries)?

Across the 30 interviews with BID participants and those not selected into the programme who nonetheless started a business, and based on the afore analysis, there is a consensus across countries and sectors on the following success factors:

1. **Market-Relevant Business Idea** Many BID participants are technically well versed but do not necessarily understand their customers, target markets and competitors very well (see chapter 3.1). A risk is that whilst a business idea is innovative and development-related, it does not correspond to the need of potential customers, and how to position itself in the market, and therefore will struggle to generate sales after its set up. As such, 83% of BID participants mentioned finding a customer/market as the biggest obstacle.
2. **Time and Motivation:** Many BID participants mentioned the time-consuming nature of starting a business, and how they had to sacrifice their social lives, vacations, and general free time. As a case in point, having a full-time job is negatively correlated with starting up. As such, the nature of starting a business should be made very clear to BID applicants to ensure that only those who are willing to invest sufficient time are selected.
3. **A Support Network:** Finding the right partnerships, business location, suppliers, and support programmes are aided by having a good entrepreneurial support network. As such, more concerted efforts are needed to provide this to BID participants.
4. **Business Coaching:** Tailored business coaching to the needs of the entrepreneur, not just at the start-up stage but also after it has been launched is critical for a successful enterprise creation and start-up (see chapter 3.3). BID should connect entrepreneurs with related support programmes after graduation or offer its services to a wider population that also includes those entrepreneurs who already started their business.
5. **Access to Finance:** Across the board, access to finance (be it through a loan or personal funds) is essential for ensuring that the business generates revenue after its creation (see chapter 3.4). It is one of the biggest obstacles BID participants encounter and is very country specific. This requires BID to inform participants of options in Germany, their country of origin, and to ensure how gaining access to finance is an integral part of its support programme.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Picture 11: A BID alumni from Indonesia.

He runs an engineering consultancy company, called Abewasser, providing consultation in the field of waste water, sanitation, and renewable energy.

5. Conclusions and Recommendations

In this document, we report the main findings of an impact evaluation conducted for 'Business Ideas for Development", Programme Migration & Diaspora. The measures under this part of the programme support potential entrepreneurs in Germany (or those who returned recently) with a migration history to set up a business in one of 11 partner countries.

Comparing BID participants and those who applied but were not selected for programme support and who are similar in terms of age, education, country of origin, years spent in Germany, income before BID, year of application, and stage of their business idea, we find that the programme **positively affects** the likelihood of aspiring entrepreneurs to start a business in their country of origin by **17.5%**, and a **higher likelihood of the business still being active by 28.2%.**
BID-supported business founders have in total generated an annual income of **EUR 413,962** for themselves. Additionally, BID supported businesses have contributed to the income generation of **739** people (**43% women**), by **full-time employing 611 staff (48% women), and 128 seasonal staff (14% women).** On average, one established business create **regular job for 5 persons**. **At least 63% of the employees are paid a living wage (above the market standard).**
BID-supported businesses have a strong development-related focus, contributing to the complete range of Sustainable Development Goals. Yet, there seems to be a trade-off between revenue and profit, where non-BID supported businesses, which are generally more commercially focused seem to do better. Comparing BID participants and those who applied but were not selected for programme support, BID is associated with a lower likelihood of breaking-even by 2.3%. It generally takes businesses 3-5 years to generate a profit. Most BID-supported businesses in our sample are, however, still quite young; with an average of 2.6 years.

Through interviews with BID participants, PMD country coordinators and the collected survey data, this evaluation points to several learning for the BID, along the lines of clearly defining the target group and offering different support services to the different segments, streamlining the business coaching between Germany and the countries of origin, deepening the networking potential for participants, and enabling easier access to finance.

Recommendations

Improve Monitoring & Evaluation System

It is recommended that BID:

- develop a clear definition of what it means to have established a business (e.g., registered, have employees, start sales/operations) for future monitoring purposes.
- standardise the BID application formats and capture the collected data in a central monitoring system in a pre-determined format that allows downloading into excel or CSV for regular analysis and review

- introduce a short baseline and an end-of-support survey to accurately measure knowledge increase from coaching, business creation, and business performance.[64]
- undertake a post-project follow-up for understanding sustainability. For instance, BID could undertake a very brief online survey on an annual basis asking for business creation and some key financial indicators to further investigate the long-term profitability of businesses.
- conduct a proper costs-estimation that considers the value of the coaching provided in Germany and the country of origin once the long-term profitability of established businesses has become clearer
- communicate to evaluators in the early stage the intrinsic details of the programme to ensure that data instruments capture all complexities and thus the full effect of the programme (for future evaluations)

Widening the Application Pool

It is recommended that BID:

- explore the alumni approach in other existing BID partner countries, e.g., Ghana, Cameroon, etc., and the transnational approach in Indonesia.
- consider offering support to two to three groups:
    - a) Entrepreneurs with a mere business idea who would be supplied with standardised business coaching in Germany (webinars, videos, etc.) on starting and running an enterprise (along with the WB's indicators), and in-country support to gather a better understanding of the market and customers
    - b) Entrepreneurs with a business plan in place, who are supported with individualised coaching in the country of origin but who have the option of signing up for (parts of) the standardised business coaching in Germany
    - c) Entrepreneurs at the business deployment stage (can even include businesses who are already registered but still grapple with running a young company) with needs-based and individualised business support services
- Increase advertisement and awareness of BID using the new diaspora 2030 website, social media, and relevant networks. Explore best practice videos or other methods where how the programme works is very quickly explained to potential participants.

Business Coaching

It is recommended that BID:

- set up a coaching checklist that ensures that all BID participants get essential business coaching plus individualised needs-based coaching
- develop a standard operating procedure regarding the local incubators and accelerators to ensure that their role and setup is more streamlined across countries
- provide thematic (online) workshops or one-to-one interaction sessions with entrepreneurs from the same sector(s) to ensure sector-specific needs are met.

[64] This is already done before and after the bootcamp in the Alumni approach in Indonesia.

- provide participants with a list of available online resources on business plans
- establishes a mentoring programme during the support in Germany (complementary to the P2P- Mentoring service through the local service providers in the different partner countries) which includes training modules around core business functions e.g., Customer-Relationship Management (CRM), Digital Marketing, and Inventory Management.
- include elective training modules around core business functions to complement coaching, such as Customer-Relationship Management (CRM), Digital Marketing, Inventory Management, etc.
- explore the option of an extended support programme that goes beyond 12 months

Networking Support

It is recommended that BID:

- increase its support in networking activities, helping a larger share of participants connect to other entrepreneurs, financial institutions (banks and investors) and service providers (accounts)
- provide a list of people that are available to contact and are specialists in the country of origin and in helping people start up (accountants, lawyers, tax advisors, etc.) or provide those services directly
- organise thematic networking events, where participants are connected with other participants, relevant alumni, and potential business sponsors in Germany[65].
- focuses even more on networking amongst participants, creating a cross-country BID alumni group[66], and promote alumni mentors, and invite successful businesses in the relevant sector to present and guide participants, especially female participants

Grant Support

- It is recommended that BID should explore the use of a separate grant for buying equipment or the use of the grant in more flexible ways

Financial Support

- Whilst BID cannot provide capital funding, It is recommended that BID should explore **the formulation of partnerships with other financial institutions to access funding from financial institutions** (banks, microfinance institutions, etc) e.g., by providing reference letters about the support provided to entrepreneurs (in the form of grants, coaching, etc) that help the financial institutions to conduct credit-worthiness assessments, by collaborating with existing credit-default mechanisms from governments and international partners to reduce interest rates, and by exploring ways to reduce collateral requirements.
- It is recommended that BID should support initiatives that test "micro-investments" (equity or semi-equity-based financing) - complementing offers in the field of "micro-credit" (debt-based financing), with networks of investors and other financing partners

[65] This could also include visits to successful businesses with selected entrepreneurs.
[66] BID is already in the process of supporting the creation of a “BID Community” to support cross-country mentoring and networking in addition to the P2P-Sessions.

Follow-on Support

It is recommended that BID:

- provide participants with a list of available and complementary (follow-on) support programmes in Germany and their country of origin (it might be essential to clarify that participants can apply to complementary programmes if they are not BMZ-funded).
- explore the option of having a follow-on support programme for graduated BID participants who have successfully created a business.

Some additional recommendations

It is recommended that BID should:

- explore the possibility of designing a strategy for engaging more closely with the diaspora members without the need for them to travel (in light of the COVID pandemic and the environmental footprint stemming from international travel)
- orient the participants on the level of commitment required in setting up and running a business to decrease the rate of unsuccessful business creation
- communicate more clearly with participants what can be expected in the framework of BID support and what participants should be ready to invest by themselves.

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ANNEXURE

Annexure 1: Literature Review

Annexure 2: BID Data Extraction

Annexure 3: Impact Evaluation Outputs

Annexure 1: Literature Review

This section explores the various drivers of successful start-up creation and how they are relevant to the returning migrant entrepreneurship community. Factors influencing a start-up's successful creation can be broadly classified into (1) external factors and (2) internal factors. These indicators are interrelated and have varying impacts on the successful start-up creation depending on the industry, the start-up approach, the market size, etc.

External factors influencing the successful creation of businesses

Some of the critical external factors influencing nascent entrepreneurship can be summarised in three sub-categories with varying levels of impact on nascent entrepreneurship:

1. **Policies in the region/country that support entrepreneurship, including access to finance and costs of starting up**
2. **Growing GDP of the target market**
3. **Potential for FDI in the start-up's ecosystem**

Regional and National Policies

Regional and National policies that support nascent entrepreneurship, including entrepreneurship costs, are usually designed to incentivize entrepreneurship. Supportive policies in access to finance, costs of start-ups, administrative processes etc., can encourage entrepreneurs. As such, the World Bank publishes an annual report on 'Doing Business' investigating the regulations that enhance business activity and those that constrain it and presents a range of quantitative indicators that can be compared across 190 economies.

Whilst favourable policies are essential, some studies (Hurst and Lusardi, 2004; Kim et al., 2006; Mueller, 2006) show that policy and financial constraints do not per se discourage entrepreneurship and the creation of new businesses because nascent entrepreneurship does not need a high level of financial capital in their start-up phase.

This can also be seen from the Global Start-up Ecosystem Report (GSER, 2020), which indicates that start-up ecosystems are emerging globally and no longer just confined to industrialised nations. Start-ups always find a way to create and deliver their services to their customers. Their delivery system for this service-value offering can be varied.

Growing GDP of the target market

Growing GDP results in rising market revenue, purchasing power, demand for variety and quantity, thus stimulating business. This increase in demand for goods and services could create new market niches, generate new business opportunities, and encourage start-up conversion (Roman et al. 2018 p.19).

Potential for FDI in the start-up's ecosystem

Whilst FDI can have varying impacts on successful start-up creation, the literature around the topic is ambiguous. The presence of considerable FDI can support job creation and new business services. However, some studies also observe that FDI can have a negative impact as it increases foreign

competition and hence discourages or increases obstacles for nascent entrepreneurship (Roman et al. 2018 p.25).

Internal factors influencing the successful creation of businesses

Internal factors seem to be less ambiguous when it comes to influencing entrepreneurship. The following sub-categories of internal factors were identified in the literature as having a positive impact on entrepreneurial start-ups:

- **Perceived capabilities:** Whilst essential skills and experience are vital, perceived capabilities also play an important role. People who have confidence in their skills and knowledge have more entrepreneurial intentions. This implies a stronger drive to be successful, quicker decision making and a mindset that, to some extent, enables overcoming obstacles and leveraging opportunities (Arenius and Minniti, 2005).
- **Perceived opportunities** are positively correlated with the probability of becoming an entrepreneur since people who perceive good business opportunities are more likely to start new businesses. A strong understanding of the need being met by the start-up, its potential customer base, customer´s needs and behavioural drivers, understanding of the market space, etc are important to develop the entrepreneur´s (or team´s) confidence in the solutions offered by them and the growth opportunities they can utilise. When the actual opportunities in the market overlap with the perception-abilities of the team to identify and leverage these opportunities, the chances of a successful start-up conversion and subsequent business success increase.
- **A perceived higher social status is associated with successful entrepreneurs.** A high social status enjoyed by successful entrepreneurs also seems to be a driving factor in motivating individuals to pursue nascent entrepreneurship. However, the factor is not as strongly correlated with start-up success as perceived capabilities or opportunities.
- **Capital and work experience obtained abroad:** Returning migrants are more likely to start a business than non-migrants that stay in the same country. Capital accumulated abroad, work experience abroad, and the duration of the stay abroad all positively affect the individual's likelihood of setting up a business upon return. Even though migrants may lose their social capital abroad, their accumulated savings and overseas experience overcompensate for this loss (Whaba, 2015; Whaba and Zenou, 2012). Furthermore, return migrants' businesses seem to enjoy a significantly higher probability of surviving over time relative to the businesses of those who stayed (Marchetta,2012). Return migrants' entrepreneurial success seems determined mainly by their more considerable starting capital and experience accumulated abroad (Bensassi and Jabbour, 2017). The Starting capital influences the ability of a start-up to realise its idea prototype its solution to meet the market's demands. For returning migrants, for capital non-intensive pursuits, this is less likely to be an obstacle. For high capital needs start-ups, their ability to access finance is strongly correlated with the founder(s) ability to develop their social networks, apply their capabilities and leverage the growth opportunities present in the market.

Hence it can be concluded that (1) perceived capabilities, (2) perceived opportunities, (3) capital and (4) work experience obtained abroad, and (5) favourable economic and legal

conditions are the key drivers of successful nascent entrepreneurship amongst entrepreneurs setting up a business in their country of origin.

Annexure 2: Comparing Treatment and Comparison Groups

Variable	Median	Mean	STD	N	P - Value
Age					
Treatment	37.000	37.869	6.425	191	0.7019
Comparison	37.000	38.177	7.919	130	
Gender (1=female, 2=male)					
Treatment	2.00	1.719	0.450	196	0.1897
Comparison	2.00	1.784	0.413	134	
Education (1-5, where 1= primary and 5=postgrad or higher)					
Treatment	5.000	4.673	0.698	196	0.1956
Comparison	5.000	4.568	0.754	132	
Income at the time of Appling to BID (in EUR)					
Treatment	7440.000	19754.870	27487.620	180	0.3426
Comparison	9800.000	1878.115	19517.940	108	
Country of Origin (coded)					
Treatment	11	11.221	6.827	195	0.0000
Comparison	9	7.662	5.746	133	
Years in Germany					
Treatment	7	8.834	7.112	195	0.5373
Comparison	6	8.336	6.828	123	
Work experience (in years) in relevant field at time of BID application					
Treatment	2	4.349	5.742	167	0.5991
Comparison	3	4.032	4.124	126	
Year of BID Application (1=2016, 6=2021)					
Treatment	4	4.024	1.188	164	0.0035
Comparison	5	4.496	1.533	125	
Stage of Business Idea (1-10, 10 being highest)					
Treatment	4	4.615	2.976	156	0.3119
Comparison	5	4.969	2.861	128	
Understanding Competitive Forces (1-10, 10 being highest)					
Treatment	6	5.782	2.492	165	0.0220
Comparison	7	6.470	2.640	132	
Understanding gin and pain points of customers (1-10, 10 being highest)					
Treatment	6	5.711	2.275	166	0.0017
Comparison	7	6.606	2.603	132	
Understanding the target market (1-10, 10 being highest)					
Treatment	6	5.305	2.371	167	0.0000
Comparison	7	6.545	2.518	132	

Please note: If the p-value is below the threshold of significance $p < 0.05$, then we can reject the null hypothesis. This means there is less than a 5% probability that the two means are identical (zero difference).

Annexure 3: Issues encountered during BID Applicants' Data Extraction

The issues encountered in the data extraction and mapping process have been listed below:

1. **Missing Data:** One of the main setbacks encountered was missing application data for individuals listed in the base excel sheet shared by GIZ. There were instances where the application data for an entire country was missing in a particular year. In addition, some of the individual application folders were empty, with no relevant files included.
2. **Format Mismatches:** The application data was not recorded in the same format. The application file format differed between a PDF and a Word file. For many of the applications in the years 2016 and 2017, the application forms were saved as an Outlook file. This led to the addition of an extra step for converting the outlook item file into a readable format. For Indonesia, the data format was completely different, with individual applications recorded in rows of an excel file.
3. **Irretrievable Data:** There were issues with accessing some of the applications as the files were corrupted or incorrectly converted.
4. **Incorrectly saved application file**: In some cases, the application data in an individual's folder belonged to a different applicant. This issue was encountered mainly in the folders which contained Outlook files. There were also cases where the same application was repeated in two different applicants' folders.
5. **Overlap of applicants across years:** Many applicants listed in a particular year were found as applicants in other years, i.e., they had multiple applications across years. The issue with these cases was that the application available in the database was from a different year than the one recorded in the excel sheet. For example, the year recorded in the excel file is 2017, but the individual's application is only available for 2016. Further, there were cases where applications for multiple years for the same individual were available, and only one of the said applications was recorded in the excel sheet. In addition, the same applicant had multiple applications in the same year, with only one being recognized in the excel database.
6. **Duplicate Applicants in the Excel Sheet:** Duplication of the same application in the same year and across years was another issue with the excel database.
7. **Alignment of information across years and countries:** The format of the application forms differed across years. In addition, the forms for Vietnam and Indonesia had a completely different format which hampered the comparability of the information.

Recommendations

1. **Improved monitoring system for application data:** A central system to monitor the individual applications would be highly beneficial. This system should track the availability of an application pack, record the year of application, and help identify duplicate entries. This will also help track changes in applications, for example, if a partner takes over from the original applicant.
2. **Standardization of application formats**: The format of the application pack should be standardized across years and countries to ensure uniformity and comparability. Alterations should be constrained to the addition of questions or sub-parts without disturbing the inherent

structure of the existing form. If the applications differ between countries, the common variables should be identically structured in the two forms.

3. **Standardization of application data:** The application data should be stored in a pre-decided format to avoid technical issues in accessing files and the repetition of application packs. The central monitoring system should allow downloading well-formatted data in Microsoft Excel or CSV formats.
4. **Periodically review the monitoring data**: To maintain a clean database, it is advisable to periodically (quarterly/ half-yearly/ annually) review the database to ensure consistency.

Annexure 4: Impact Evaluation Outputs

Variable Transformations

Variable Created	Variables Used	Transformation
Age	q0005 "Could you please tell us in which year you were born?"	1) Took away the date of birth away from the year of the survey i.e.: [2021 - q0005]
Country of Origin	q0006 "Could you please tell us your country of origin?" q0006_other "Other (please specify)"	1) A participant has answered "other" to "Could you please tell us your country of origin" and "Indonesia" to the follow-up question "Other (please specify)". This observation has been edited to answer "Indonesia" for Country of Origin. 2) Recode to define categories of "Cameroon", "Colombia", "Ghana", "India", "Indonesia", "Nigeria", "Tunisia", "Vietnam", "Others". Others includes countries (and the number of observations in brackets) of: Bolivia (1), Germany (1), Morocco(8), Serbia(5), Bolivia & Germany (1)
Years Spent in Germany	q0009 "Could you please tell us how many years you spent/have been living in Germany?"	No transformation needed
Education	q0012 "Could you please tell us your highest level of education completed?"	1) Recode to define categories of "Primary, elementary or Secondary" "Professional/Technical Higher", "Undergraduate Degree", and "Postgraduate Degree and higher" by combining Primary or elementary education (1 observation) with Secondary education (2 observations)
Primary Occupation	q0015 "Could you please tell us your current primary occupation?"	Recode 1) " Self-employed; working for yourself" & "Self-employed: employing others (at least two people in the enterprise incl. yourself)" as "Self Employed" 2) "Full-time employed (not an employer)" and "Part-time employed (not an employer)" as "Employed by an employer" 3) "Student" as "Student" 4) "Not working but looking for work" as "Not working but looking for work" 5) "Seasonal Worker" (3 obvs), "Retired" (1 obvs), "Not working and not looking for work" (1 obvs) , and "Other (please specify)"(13 obvs) as Other (please specify)"

Have More than one Occupation	q0016 "Do you have more than one occupation?"	Transformed into binary variable; "Yes" = 1, "No" = 0
Year of application	q0021 "What year did you apply for the Business Ideas for development (BID) initiative?"	Change "Don't Know" to missing observations
Stage of Business Idea	q0023 "What stage was the business idea with which you applied to BID? Please rate the business idea with which you applied on a scale from 1-10 (1 being at the ideation stage (mere business idea) and 10 having already tested the service/product or ready for deployment)"	Recode 1-3 as "ideation", 4-7 as "product development", 8-10 as "product deployment"
Understanding Competitive Forces	q0024 "How well did you understand the competitive forces in your target market (competitors, new entrants) of your business idea at the time of your application to BID?"	Recode 1-3 as "did not understand well", 4-7 as "understood partially", 8-10 as "understood well"
Understanding Gain and Pain Points	q00025 "How well did you understand the gain and pain points (needs and behaviours) of your potential customers of your business idea at the time of your application to BID?"	Recode 1-3 as "did not understand well", 4-7 as "understood partially", 8-10 as "understood well"
Understanding Addressable, Serviceable, and Obtainable size of Target Market	q0026 "How well did you understand the addressable, serviceable, and obtainable size of the target market for your business idea at the time of your application to BID?"	Recode 1-3 as "did not understand well", 4-7 as "understood partially", 8-10 as "understood well"
Family Members Which are Entrepreneurs	q0075_0001 "How many of your friends and family (private network) are entrepreneurs? Please enter zero if it does not apply. Family members: _____ (only numeric entry)"	No transformation needed
Friends Which are Entrepreneurs	q0075_0002 “How many of your friends and family (private network) are entrepreneurs? Please enter zero if it does not apply. Family members: _____ (only numeric entry)"	No transformation needed
Market Network: Individual	"How would you rate your entrepreneurial network (on a scale from 1-10)?" q0089_0001 "Suppliers" q0089_0002 "Retailers" q0089_0003 "Competitors" q0089_0004 "Customers"	1) Sum values of all 4 variables together and divide by 4 (average with equal weights) 1) recode for 1-3.99 as "weak", 4-7.99 as "Average", 8-10 as "Strong"

Professional Network: Individual	"How would you rate your entrepreneurial network (on a scale from 1-10)?" q0090_0001 "Banks" q0090_0002 "Investors" q0090_0003 "Accountants" q0090_0004 "Lawyers"	1) Sum values of all 4 variables together and divide by 4 (average with equal weights) 1) recode for 1-3.99 as "weak", 4-7.99 as "Average", 8-10 as "Strong"
Work Network: Individual	"How would you rate your entrepreneurial network (on a scale from 1-10)?" q0090_0001 "Other Entrepreneurs" q0090_0002 "Partners" q0090_0003 "Colleagues" q0090_0004 "Business Mentors"	1) Sum values of all 4 variables together and divide by 4 (average with equal weights) 1) recode for 1-3.99 as "weak", 4-7.99 as "Average", 8-10 as "Strong"
Years in Business	Year of Application	1) Years in business assumes to be current year + 1 year minus 'Year of application' (so 1 is the first year in business, 2 is the second year, etc.) i.e. [2022 - Year of Application]
Years of Experience Now	Years in Business q0138 "Is your business currently still active?" How many years of experience did you or your team have in the relevant sector of your business idea? q0027_0001 "At the time of application to BID: _____(years)" q0027_0002 "Now: _____(years)"	1)Create variable from q0027_0002 with no transformations 2) If the business is still active (q0138=1): Change missing values to years of experience then (q0027_0001) + Years in Business. 3) If the business is no longer active: Change missing values to experience then (q0027_0001).
Start-up Capital	q0088 "Please select the currency used for start-up capital" q0088_other . "How much start-up capital did you put into the establishment of your business? How much came from your own resources and how much was sourced from outside?" q0087_0001 "Total Start Up Capital" q0087_0002 "Own funds" q0087_0003 "Loan" q0087_0004 "Grant (no payback needed) q0087_0005 "Investment from friends / private investor in return for shares" q0087_0006 "Other"	1) Create variable from q0087_0001 without transformation 2) Sum the variables (q0087_0002, q0087_0003, q0087_0004, q0087_0005, q0087_0006) for 'start-up capital total of constituent parts' 3) If the 'start-up capital total of constituent parts' is a)not missing, b) strictly greater than "0" and greater than q0087_0001 replace start-up capital with 'start-up capital total of constituent parts'. Transform Start-up Capital variable where q0088_other is a different currency by exchanging the currency to EUR (as of 01/03/2022)

Proportion of Personal Income from Business	q0129 "What proportion of your average PERSONAL INCOME during the last 12 months came from your business?" Business Creation (please see below) q0138 "Is your business still active?" q0121_0001 "Business Turnover Amount"	1) Create variable from q0087_0001 without transformation 2) Replace missing values with "0" if q0077 is "No" 3) Replace missing values if q0138 is "No" 4) Replace missing values if q0121_0001 is "0"
Outcome Variable Created	Variables Used	Transformation
Business Creation	q0077	No transformation needed
Profit for those that have created a business	q0121_0001 "Business Turnover Amount" q0122 "Please select the currency used for Business Turnover amount" q0122_other "Other (please specify)" Business Creation	1) Create 'Profit' variable from q0121_0001 without transformation if q0122 is EUR 2)Transform 'Profit' variable where q0122_other is a different currency by exchanging the currency to EUR (as of 01/03/2022) 3) Change observations to missing if participant answered “No” to “Have you ever created a business?” 4) Replace missing values with "0" if q0121_0001 (as missing currency is not important if turnover is zero). 5) Set 'Profit' values to missing if Business Creation is "No"
Profit for those that have created a business	q0123_0001 "Business Turnover Amount" q0124 "Please select the currency used for Business Profit amount" q0124_other "Other (please specify)" Business Creation	1) Create 'Profit' variable from q0123_0001 without transformation if q0124 is EUR 2) Transform 'Profit' variable where q0124_other is a different currency by exchanging the currency to EUR (as of 01/03/2022) Change observations to missing if participant answered “No” to “Have you ever created a business?” 4) Replace missing values with "0" if q0123_0001 (as missing currency is not important if profit is zero). 5) Set 'Profit' values to missing if Business Creation is "No"
Business Break-even	q0120 "Does your company break even?" q0121_0001 "Business Turnover Amount" q0123_0001 "Business Turnover Amount"	1) Transform q0120 to a binary variable where "Yes" = 1 and "No" = 0 2) Change missing value to “Yes” if q0123_0001>0 3) Change missing value to “Yes” if q0123_0001>=0 and q0121_0001>0 4) Change missing value to “No” if q0123_0001<0 5) Change observations to missing if participant answered “No” to “Have you ever created a business?”

Output Tables for Regression Analysis

A. Business Creation

Variable	dy/dx	Std. Error	z-value	p-value	95% Confidence Interval	
t_status						
treatment	0.104	0.057	1.826	0.068	-0.008	0.215

Gender						
Female	-0.080	0.065	-1.234	0.217	-0.208	0.047
Age	0.000	0.005	-0.025	0.980	-0.009	0.009
Years In Germany	-0.004	0.004	-0.900	0.368	-0.011	0.004
Primary Occupation						
Employed by an employer	-0.258	0.066	-3.923	0.000	-0.387	-0.129
Student	-0.120	0.091	-1.310	0.190	-0.298	0.059
Not working but looking for work	-0.064	0.113	-0.561	0.575	-0.286	0.159
Other	-0.295	0.128	-2.300	0.021	-0.547	-0.044
More Than One Occupation						
Yes	0.146	0.057	2.579	0.010	0.035	0.257
Business Stage						
Product Development	0.073	0.068	1.080	0.280	-0.060	0.207
Product Deployment	0.151	0.086	1.763	0.078	-0.017	0.319
Understanding Competitiveness						
Understand Partially	-0.026	0.082	-0.324	0.746	-0.187	0.134
Understood Well	0.119	0.090	1.326	0.185	-0.057	0.296
Friend Network	0.016	0.005	2.955	0.003	0.005	0.027

Please note: If the p-value is below the threshold of significance p < 0.05, then we can reject the null hypothesis. This means there is less than a 5% probability that the two means are identical (zero difference).

B) Business Performance

Variable	Probit Heckman Margins on Outcome Variable Break Even		Twostep Heckman (Linear) for Outcome Variable Profit		Twostep Heckman (Linear) for Outcome Variable Turnover	
	dy/dx	p-value	Coefficient	p-value	Coefficient	p-value
t_status						
Treatment	0.011	0.905	-12833.468	0.009	-59137.695	0.003
Country of Origin						
Colombia	0.001	0.993	2541.543	0.775	14840.081	0.681
Ghana	0.320	0.029	1873.077	0.795	-4865.674	0.867

India	-0.241	0.326	-2271.401	0.819	-1884.660	0.962
Indonesia	0.055	0.711	2630.084	0.706	22489.071	0.425
Nigeria	-0.002	0.989	-3095.888	0.795	14132.173	0.768
Tunisia	-0.085	0.690	-6646.975	0.653	58970.503	0.234
Vietnam	-0.241	0.325	21025.149	0.024	91549.307	0.015
Others	-0.042	0.833	25250.443	0.037	109999.385	0.026
Years in Business	0.061	0.096	-1375.601	0.441	-3309.366	0.640
Gender						
Female	0.070	0.551	-3016.366	0.600	-3389.828	0.884
Postgrad Education	0.017	0.849				
Education						
Professional/Technical Higher			9271.511	0.667	30009.269	0.730
Undergraduate Degree			14291.954	0.487	48066.278	0.561
Postgraduate Degree and Higher			14964.817	0.463	61132.767	0.457
Years In Germany	0.014	0.117	-213.724	0.547	100.048	0.944
More Than One Occupation						
Yes	0.048	0.643	-1784.379	0.716	-13364.254	0.491
Log Start-up Capital	-0.031	0.260	2578.777	0.050	12130.783	0.023
Family Which are Entrepreneurs	0.011	0.391	-67.899	0.935	256.974	0.940
Friends Which are Entrepreneurs	0.001	0.099	-0.828	0.984	-24.295	0.884
Proportion Personal Income From Business	0.003	0.050	121.518	0.163	395.250	0.256
Years of Experience Now	-0.008	0.426	-521.196	0.186	-2209.874	0.165
Constant			-18164.128	0.449	-95707.263	0.325

Please note: If the p-value is below the threshold of significance p < 0.05, then we can reject the null hypothesis. This means there is less than a 5% probability that the two means are identical (zero difference).