



The Positive Impact of Women Education:  
An Assessment of the Girl MOVE Academy  
Case in Mozambique

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Dissertation submitted in partial fulfilment of requirements for the  
MSc in Management with Specialization in Strategy and  
Entrepreneurship at the Universidade Católica Portuguesa, 2021.

## **Abstract**

**Dissertation title:** The Positive Impact of Women Education: An Assessment of the Girl MOVE Academy Case in Mozambique

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**Keywords:** Value-Creation – Social Impact – Measurement – Theory of Change – Education – GirlMOVE – Impact Management Project

Value creation is at the core of a business's strategy. Socially driven and non-profit organizations should evaluate the changes that result from their activities to assess their contribution to societal progress and ensure the success of the interventions.

This study assesses the value creation of an educational intervention for young girls in Mozambique and focuses on underlining the constructs used to design and measure its impact. It indicates that early pregnancy and marriage are the main drivers for female low school attainment in developing countries and highlights the importance of investing in education, evidencing the positive returns associated with a higher level of education, that include financial returns on wages that range from 19.3% on average, for women with primary education, to 323,4% for women with tertiary education.

By crossing the strategic pillars of the program with the prominent causes for low school attainment, the study elucidates how organizations can use similar assessments to design interventions that are effective in addressing societal issues and creating social value. That is core to define the program's outcomes and articulate the elements of its Theory of Change.

Through the Impact Management Framework, the study analyzes the five dimensions of the program impact measurement system. In addition, it combines these insights with the findings on Mozambican education to propose a long-term assessment that ensures the program monitors the progress of the participants throughout secondary education when they still face challenges to fulfill their educational path.

## Sumário

**Título da dissertação:** O Impacto Positivo da Educação das Mulheres: Uma Avaliação do Caso da Girl MOVE Academy em Moçambique

**Autor:** Natália Cantarino Féres

**Palavras-Chave:** Criação de valor – Impacto social – Medição – Teoria da mudança – Educação – GirlMOVE – Impact Management Project

A criação de valor está no centro da estratégia das empresas. Negócios sociais e organizações sem fins lucrativos devem avaliar as mudanças que resultam de suas atividades para compreender como contribuem para o progresso social e garantir o sucesso de suas intervenções.

Este estudo avalia a criação de valor de uma intervenção educacional para raparigas em Moçambique e sublinha os construtos usados para definir e medir o seu impacto. Identifica a gravidez precoce e o casamento como principais impulsionadores do baixo rendimento escolar feminino nos países em desenvolvimento e destaca a importância do investimento em educação, evidenciando os retornos positivos associados a maiores níveis de escolaridade, que incluem salários que variam, em média, de 19,3% para mulheres com ensino primário a 323,4% para mulheres com ensino superior.

Ao cruzar os pilares estratégicos do programa com as principais causas do baixo nível de escolaridade, o estudo elucida como as organizações podem usar avaliações deste tipo para projetar intervenções eficazes na abordagem de questões sociais e na criação de valor social. Isso é fundamental para definir os resultados do programa e articular os elementos de sua Teoria da Mudança.

Por meio do Impact Management Framework, o estudo avalia as cinco dimensões do sistema de medição de impacto do programa. Em seguida, combina essas percepções com os resultados da educação em Moçambique para propor uma avaliação de longo prazo que garanta que o programa monitore o progresso das participantes durante o ensino secundário, quando elas ainda enfrentam desafios para concluir seu percurso educacional.

## Table of Contents

<b>I. Introduction</b> .....	1
<b>II. Literature Review</b> .....	2
<b>1. Social Impact Measurement</b> .....	2
1.1 Social Impact and the Importance of Measuring it .....	2
1.2 Challenges of Measuring Social Impact .....	3
1.3 Theory of Change .....	4
1.4 KPIs and Metrics to Evaluate Social Impact .....	5
1.5 The <i>Impact Management Project</i> methodology .....	7
<b>III. The Societal Issue: Low School Attainment of Girls</b> .....	8
<b>2. The Societal Issue</b> .....	8
2.1. Causes for Low School Attainment of Girls .....	9
2.1.1 Socio-Economic and Cultural Barriers .....	10
2.1.2 School Level Barriers .....	11
2.2 Effects of Low School Attainment on the Girls lives .....	11
2.3 The Mozambican Context .....	12
2.3.1 Causes for Low School Attainment of Girls in Mozambique .....	14
<b>3. Investing in Education: Economic Gains and Losses of Low School Attainment</b> .....	15
<b>IV. Case Study: GirlMOVE</b> .....	18
<b>4. The GirlMOVE Academy</b> .....	18
4.1 The Social Intervention: the BELIEVE program .....	20
4.1.1 The Structure and Methodology of the Program .....	20
4.2.2 The Expected Outcomes .....	22
<b>5. Impact Assessment of the Program BELIEVE</b> .....	22
5.1 The Measurement System .....	22
5.1.1 The Theory of Change .....	23
5.1.2 The Impact Metrics .....	24

5.2 Analysing the Measurement System through the IMP .....	26
5.2.1 Discussing the program outcomes .....	26
5.2.2 The program beneficiaries .....	28
5.2.3 Analysis of the Potential for Societal Impact .....	28
5.2.3.1 Preventing the Causes of Low School Attainment .....	28
5.2.3.2 Positive Effects of Educated Girls .....	29
5.2.3.4 Scale, depth and Duration of the Program .....	30
5.2.4 Understanding the Contribution of the program .....	31
5.2.5 Mapping the Associated Risks .....	31
<b>V. A Proposal for Long-Term Assessment .....</b>	<b>32</b>
<b>VI. Conclusions .....</b>	<b>33</b>

## **List of Figures**

Figure 1: Theory of Change (Adapted from EVPA, 2015, and Epstein & Yuthas, 2014)

Figure 2: The Impact Management Project Framework (IMP, 2020)

Figure 3: Sisterhood Circle (GirlMOVE, 2020a)

Figure 4: The BELIEVE program Theory of Change (GirlMOVE, 2021)

## **List of Tables**

Table 1: Salary Estimations (Wodon et al, 2018)

Table 2: Key Performance Indicators (GirlMOVE, 2021)

Table 3: Complementary Indicators (GirlMOVE, 2021)

Table 4: Process Indicators (GirlMOVE, 2021)

## **I. Introduction**

As the world progresses, the understanding of businesses' responsibilities and organizational performance develops into new paths. Over the last decades, social and environmental concerns have become an increasingly part of corporate strategies, supported by the Sustainable Development Goals and the 2030 Agenda. Organizations have been challenged to rethink their commitments, reshape their structures and pursue sustainable competitive advantage while embracing accountability for their actions.

This development has oriented organizations towards *value creation* and the design of new business models that embed social and environmental impact at their core. Within this context, there is the need to create and implement a new metrics system to evaluate not only the financial results of organizations but also their contribution towards social and environmental progress. Thus, this system should assess the social and environmental value created through organizational activities and measure their long-term effect.

The same focus on sustainability and accountability is percolating through the non-profit sector, requiring a systematic approach to measuring the impact of initiatives or interventions. This study aims to assess the value creation of an educational intervention for young girls in Mozambique and understand the constructs used to evaluate its impact.

That requires a detailed assessment of:

- The causes associated with female low school attainment and the long-term effect of education for women;
- The economic losses and gains of investing in education;
- The constructs used to define the changes that a social intervention aims to achieve;
- The elements used to design the program measurement system and the results it has achieved.

The goal of this study is to cross different areas of study to provide answers on a) the importance of investing in female education, b) how a social intervention can create value and c) what is the organization main contributions to society through this intervention.

## II. Literature Review

### 1. Social Impact Measurement

This chapter presents the key concepts of social impact management and discloses the framework adopted to assess the social intervention that illustrates this study.

#### 1.1 Social Impact and the Importance of Measuring It

The ultimate purpose of socially driven organizations is to *create value* by improving the well-being of disadvantaged individuals of a target population (Martin & Osberg, 2007). The effectiveness of a social intervention can be described by the degree to which it addresses the social needs of its target group (Kroeger & Weber, 2014). Systematic and fundamental progress made on societal issues that can be attributed to organizations' programs, activities, and social interventions outcomes can be referred to as *social impact* (Epstein & Yuthas, 2014). Thus, the *impact* of an intervention can be comprehended as the final component of a logic model in which a sequence of activities is designed to produce intermediate effects on a target population that will lead to a long-lasting change in society. (Epstein & Yuthas 2014; Hehenberger, Harling & Scholten, 2015; Ranga, Appleby, & Moon, 2012).

Measuring and comparing *value creation* is a topic of great importance for socially-driven organizations (Kroeger & Weber, 2014), as these organizations often depend on the structural and financial support of third parties, including foundations, governmental institutions, and investors, that have high expectations and demands regarding transparency and accountability (Kroeger & Weber, 2014). In their decision-making process, these institutions evaluate and compare different social interventions to fund the most effective ones. Hence the importance of having a well-designed system that allows the measurement of the intervention outcomes (Kroeger & Weber, 2014), as the organizations need to know not only "if they are making progress and maximizing their potential positive social impact" but also "how they are performing relative to their industry peers" (Ungane & Olsen, 2004, as seen in Kroeger & Weber, 2014).

Measuring impact also stimulates the organizations to articulate, structure, and define their activities and impact goals. One of the most fundamental and valuable aspects of the measurement is creating a shared vision that can guide strategies and actions (Epstein & Yuthas, 2014).

Thus, impact measurement can:

- Help organizations validate the assumptions used to develop their intervention, by assessing the intended effect on beneficiaries;
- Provide insightful learnings about the intervention effectiveness, allowing for performance assessment and assisting organizations to refine and improve their programs and outcomes;
- Provide valid information to support the organizational decision-making process;
- Support communications and the development of activity reports;
- Enable organizations to provide investors reassurance about their investments;
- Support the development of case studies to validate the organization's activities and help further raise resources;
- Support organizational efforts in investing and redirecting resources;
- Enhance accountability and increase the trust in the organization's activities and capabilities.

## **1.2 Challenges of Measuring Social Impact**

Measuring impact can help organizations create more systemic and sustainable change. To achieve that, it is necessary to have well-defined impact frameworks that allow accurate measurement and comparison of the intervention outcomes (Sopact, 2020). One of the biggest challenges of impact measurement is the lack of an internationally recognized standardized measurement system that allows different organizations to define metrics, report, and assess their performance in a systematic and comparable approach. According to Salazar, Husted, and Biehl (2012), despite extant research and practice demonstrating interest in creating and measuring social impact, standards for measuring this construct are still underdeveloped. As a result, many organizations haven't developed processes and might lack the knowledge needed to define, assess and measure the outcomes and effectiveness of their interventions.

According to Epstein & Yuthas (2014), for some organizations, the problem isn't measuring the impact per se, but measuring their own contribution to the perceived change. For instance, "when the rate of smoking among teenagers drops, it is difficult to determine how much of that change is attributable to any particular program or intervention" (Epstein & Yuthas, 2014). However, it is not the lack of capacity that prevents organizations from developing such assessments, but the belief that this is a costly process that requires the allocation of resources

that may not fit the organizations' budget. It can also be perceived as an extra activity that needs to be conducted in addition to the intervention, inducing more workload and not always clear or tangible results. Some also believe measures are misleading and that the impact measurement process tries to simplify social and environmental phenomena into simple metrics, which could imply the loss of its complexity (Epstein & Yuthas, 2014). What these arguments fail to consider is that a well-structured and designed impact management must consider all aspects and conditions of the target population in the development of a measurement system. That means that these frameworks, when correctly applied, can provide resourceful insights and knowledge on the progress achieved with social intervention.

These challenges can prevent organizations from creating and implementing measurement systems. Nevertheless, the lack of measurement is the highest risk organizations can face, as it leads to the loss of valuable resources and inhibits organizations from effectively understanding the effect of their activities.

### **1.3 Theory of Change**

The Theory of Change (ToC) is a framework that helps organizations clarify the social impact they aim to achieve and which activities need to be performed to accomplish their expected outcome (Davies, 2012). It is also used to assist organizations to identify behaviors and actions that will lead to an aspired transformation (Rossi & Freeman, 1985). The ToC supports organizations in explaining the sequence of activities conducted to produce the results that contribute to achieving the final intended impact (Rogers, 2014). Furthermore, it intends to design the organization's main goals and what kind of approach can be used to achieve them (Bill & Melinda Gates Foundation, 2011).

The ToC is associated with a logic model used to articulate the expected change - or impact - the organization is seeking. The model presents a sequence of interrelated components that will lead to the outcomes identified as preconditions for achieving the long-term goal.

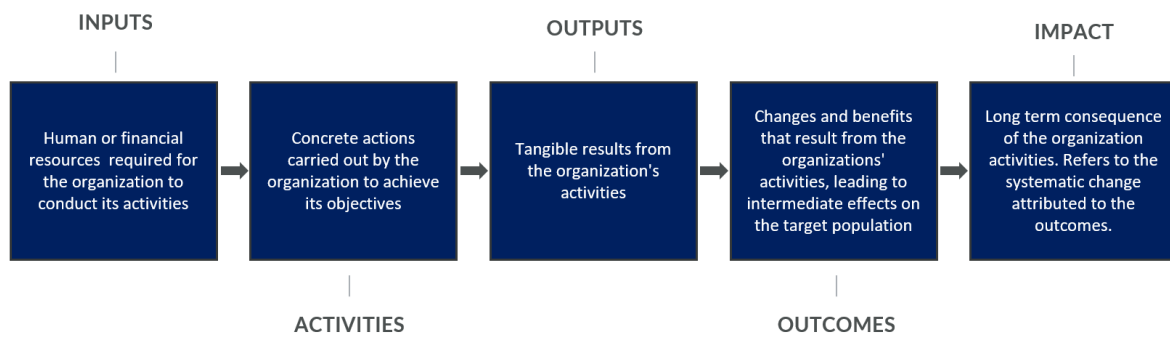


Figure 01: Theory of Change (Adapted from EVPA, 2015, and Epstein & Yuthas, 2014)

The “*inputs*” are the human or financial resources required for the organization to conduct its activities. The “*activities*” are the concrete actions carried out by the organization to achieve its objectives. The “*outputs*” are a result of the activities that can be defined as the tangible products or services that result from the organization’s activities. Outputs can be quantified and described using a number, for instance, the amount of people reached or the number of items sold. The “*outcomes*” refer to the changes and benefits that result from the organizations' activities. Outcomes are the intermediate effects on the target population that are necessary to achieve the desired impact goals. They are the program’s direct results on the served population’s behavior, attitudes, and skills, or on the condition of specific social or environmental variables (Epstein & Yuthas, 2014). Finally, the “*impact*” is the long term consequence of the organization activities and refers to the systematic change attributed to the organizational outcomes.

According to Epstein & Yuthas (2014), the first step to develop a ToC is to determine the organization’s impact goal, which means articulate the fundamental change the organization aims to achieve. Secondly, the organization should define its outcomes and determine which activities and interventions can be conducted to best achieve its goals. All the operational decisions related to the impact management, such as the definition of the outcome data to collect, assess, and analyze, as well as the changes that need to be made to improve the effectiveness of the organization intervention depend on its ToC (Sopact, 2020).

#### 1.4 KPIs and Metrics used to Evaluate Social Impact

The establishment and selection of Key Performance Indicators (KPIs) are essential to validate the impact measurement process. The KPIs allow the assessment of the intervention’s

“success” based on a quantifiable measurement of the organization’s performance. According to the IMP (2020), “these metrics are used to determine a company’s progress in achieving its goals, and to compare its performance against others within its industry.” Thus, the indicators are variables that provide insightful information about the changes that occur as a result of the intervention and are valuable to evaluate if the intervention is producing the desired outcomes.

According to IMP (2020), an indicator’s validity depends on how well it reflects the outcome. When defining its measuring process, the organization should consider the feasibility of collecting the necessary data for the chosen indicators. Nevertheless, collecting data may not always be possible. In these cases, organizations can use an indirect indicator (a proxy) to demonstrate the degree of progress towards an outcome (IMP, 2020).

Organizations can use outcome thresholds to get a better understanding of how their impact performance fares against their peers and within the industry. While a repository of standard-based outcome thresholds does not yet exist, there are relevant sources that allow for that validation, such as the World Bank poverty lines, the SDG Index, and the B Impact Assessment. There are mainly two types of thresholds to be considered: the *standard-based* threshold and the *results-based* threshold. The *standard-based* threshold defines at which point an outcome turns from negative to positive, helping organizations assess whether they meet or exceed a generally-accepted minimum level of outcome. One example is the "Real Living Wage" in the UK, which defines the necessary income for achieving an acceptable standard of living. The *results-based* thresholds provide benchmarks on the minimum, average and maximum levels of impact performance. By comparing an outcome to the industry’s performance, an organization can gain valuable insights on how to do better (IMP, 2020). The "Access to Medicine Index" is an example that gives an in-depth comparison of how pharmaceutical organizations are improving access to medicine in developing countries. With the available data, other companies can benchmark and understand how their performance compares across the market.

According to Santos (2012), creating a repository of knowledge and developing new metrics would allow comparing the impact of different social entrepreneurship activities, and would enable the allocation of societal resources in more efficient ways to areas of greater impact per unit of resource used.

## 1.5 The *Impact Management Project* methodology

The Impact Management Project (IMP) is a framework used by organizations to structure and report on their impact. It aims to provide comprehensive standards for impact measurement, management, and reporting. The IMP consists of a forum that entails more than 2000 practitioners dedicated to building global consensus on impact measurement. These entities convene in a structured network that, through specific and complementary expertise, coordinate efforts to provide complete standards for impact management (IMP, 2020).

The IMP was the framework chosen for this study as it has, through the years, been consolidated worldwide as the potential methodology to standardize industry practices, and for its network structure, which allows practitioners from relevant organizations across different industries to connect and share their knowledge. It is also a flexible tool that can be applied to different types of interventions with different business models.

According to the IMP, the impact can be measured across five dimensions. Each dimension has a specific set of categories that provide the information needed for its assessment. To be able to understand its impact, organizations should collect, analyze, and assess data across each of the dimensions.

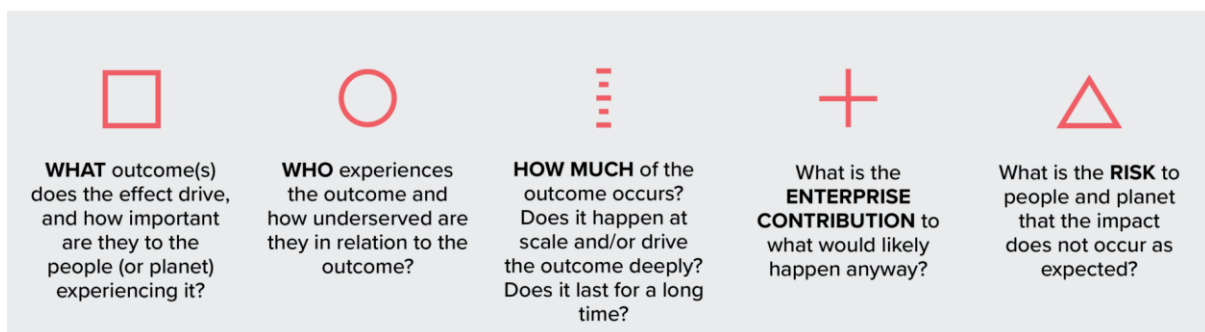


Figure 2: *The Impact Management Project Framework (IMP, 2020)*

The “*what*” dimension assists organizations in identifying the *outcomes* they are contributing to and their importance to the stakeholders. The outcomes are the benefits the stakeholders' experience as a result of the organization's activities and can be either positive or negative, intended, or unintended.

The “*who*” dimension defines the stakeholders experiencing the outcomes and captures the stakeholders' conditions prior to their interaction with the initiative.

The “*how much*” dimension evaluates how the stakeholders experience the outcome, and how relevant it is for them. It assesses the outcome across scale, depth, and duration, which means, the number of stakeholders experiencing the outcome, in what degree of change it is experienced, and for how long.

The “*contribution*” dimension recognizes that impact occurs in a dynamic system, where stakeholders are exposed to several stimuli. To understand their own contribution to a social or environmental outcome, organizations need to consider what would have happened in the absence of their activities, allowing them to further explore the intervention potential.

The “*risk*” dimension assesses the likelihood that the impact will be different and riskier than expected.

The IMP framework will be further explored in this study through its application to a social intervention that aims to raise female school attendance.

### **III. The Societal Issue: Low School Attainment of Girls**

#### **2. The Societal Issue**

The object of study of this thesis is an educational program for girls in Mozambique, a sub-Saharan African country that faces several social and economic development challenges. To understand the program's importance, this chapter focuses on exploring the societal issue that led to its creation, from a general economic perspective to a focus on the specifics of the Mozambican context.

Education is one of the core foundations of human development and has been constantly addressed by policymakers and governments as a strategic development priority across the world (The World Bank, 2020). The efforts to promote education are part of a global commitment envisioned by the Sustainable Development Goal 4, which aims to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". According to the United Nations (2020a), education is a key to escape poverty, enables upward socioeconomic mobility, and helps reduce gender inequalities.

Despite the substantial progress made over the last two decades, the United Nations (2020b) estimates that 258 million children still don't have access to education, representing one-fifth

of the population in this age range. In several countries, gender disparity still exists in access, learning achievement, and continuation in education, leading to a lower level of educational attainment for girls (UNESCO, 2020a). Worldwide, there were approximately 5.5 million more girls than boys of primary school age out of school in 2018 (United Nations, 2020b). The Sustainable Development Goal 5, "Achieve gender equality and empower all women and girls", entails the problems associated with gender disparity and aims to promote solutions to end all forms of discrimination against all women and girls to ensure their full and effective participation in society.

The World Bank (2016) estimates that 89.3% of the girls, globally, complete their primary education, while 77.1% complete the lower secondary education. In low-income countries, these numbers are drastically lower and foresee a social development issue: 65% of the girls complete their primary education, but only 34.4% complete their secondary studies. Sub-Saharan Africa is the region that faces the most educational challenges, with an out-of-school rate for children of 31.2%, much higher than the global average of 17.1%. It also accounts for the largest group of girls out of school: 52 million (UIS, 2019).

Education has several long-standing positive impacts on girls' lives, with spillovers that affect their families, communities, and countries. Better educated women tend to have higher incomes, marry at a later age, have fewer children, and enable better health care and education for their families (The World Bank, 2020). Studies provide strong evidence that additional years of education increase economic gains on both private and macroeconomic levels. According to Psacharopoulos & Patrinos (2010), providing girls one extra year of education beyond the average, boosts eventual wages by 10 to 20%.

## **2.1 Causes for Low School Attainment of Girls**

Poverty remains the most relevant barrier to education. Cultural norms and practices, traditional attitudes about the status and role of women in society, gender-based violence, geographical isolation, and poor infrastructure are also obstacles preventing girls to fully exercise their right to education. The causes for low school attainment vary depending on the social and cultural context. This study articulates them into two dimensions: socio-economic and cultural barriers and school-level factors, focused on the Sub-Saharan Africa region.

### **2.1.1 Socio-Economic and Cultural Barriers**

Cultural norms and beliefs can constrain girls' education, especially in developing countries, where gender is still a core aspect of social structure. Traditional values and religious beliefs may limit girls from expressing their opinions or making decisions about their own lives. In these countries, women tend to have a lower social status and are expected to perform specific roles in their family and community that may not require an educational level, preventing them from pursuing their studies and fulfilling their educational path.

In countries with the lowest school attainment, child marriage is still a common practice and the key reason for girls dropping out of school (Wodon, Montenegro, Nguyen & Onagoruwa, 2017a). According to UNICEF (2014), in Sub-Saharan Africa, 40% of the girls get married before the age of 18. Poverty poses as the driving decision for child marriage, which can be seen as an economic survival strategy, based on gender norms and traditions that say that girls must live and be supported by their husbands' families (Wodon et al, 2017a). Early pregnancy, usually a consequence of early marriage, is also one of the main reasons for the low school attainment of girls.

An additional economic dimension that influences school dropout is school costs, such as fees, especially in limited or lower-income families. In countries with no tuition fees for education, families still have to incur other school costs such as clothing or uniforms, school materials, and commute costs (World Bank, 2005). According to Shahidul & Karim (2015), there is considerable evidence in the literature that parents do not invest in education equally, with a pro-male bias. That's because investing in boys' education is perceived as more effective, based on the future outcomes of the males in the labor market and the limited opportunities for women's employment.

Another economic barrier is the opportunity cost related to the girls' household work. Parents may consider economically inefficient to send their daughters to school, if they could instead stay home taking care of younger siblings, cooking, and cleaning (Maia, 2008). Research demonstrates that girls' opportunity costs are important in terms of lost chore time and their contribution to the family income. Moreover, as girls are expected to do more housework than boys, the family's opportunity costs of girls' education are higher in many African countries (Herz & Sperling, 2004).

### **2.1.2 School Level Barriers**

In Sub-Saharan Africa, school distance is a determinant in school dropout for female students. The geographic distance can discourage girls from pursuing their education, mainly due to the length of time and energy needed to cover the distance, but also because of concerns about their safety, especially against sexual assaults. The lack of female teachers is also an obstacle to girls' participation and enrollment in school due to cultural and religious beliefs (Shahidul & Karim, 2015). Teacher's attitudes towards students, favoring males, also influence female dropouts.

Inadequate sanitation facilities can also prevent girls from attending school, especially during their menstrual periods, which lead to irregular attendance that can precursor dropout (Maia, 2008). The lack of extra-curricular activities is also a driver for low school attainment, as it may prevent girls from engaging and getting motivated with school activities (Shahidul & Karim, 2015).

### **2.2 Effects of Low School Attainment on the Girls lives**

The lack of education limits choices and opportunities throughout the girl's lives. Data suggest that higher educational attainment is associated with higher perceptions of well-being, while the lack of education tends to reduce women's participation in society, depriving them to fulfill their potential and advocate for their rights (Worton et al., 2018). According to Herz & Sperling (2004), female education is one of the most powerful tools to empower women. Empowered women tend to improve not only their own lives but also the life of their family members, participating more actively in the decision-making process in their households and communities. Education fosters democracy and women's political participation, as "expanded educational opportunities for females goes along with a social structure that is generally more participatory and, hence, more receptive to democracy." (Barro, 1999)

The lack of education, however, can be associated with higher population growth and fertility rates, given its impact on women's ability to make choices about their health and to advocate the use of contraceptive methods. As education expands women's horizons and improves women's position in their families and society, couples tend to have smaller, healthier, and

better-educated families, as they begin to invest more in the health and education of each child (Herz & Sperling, 2004). Education can also reduce domestic violence (Worton et al., 2018).

Child marriage and early pregnancy can be both causes and effects of school dropout and low school attainment for girls. When girls stop attending school, they are more likely to get into early marriage and pregnancy. When girls engage in these situations while still in school, they are likely to abandon their studies to focus on their new families, since the rewards of education are not easily perceived.

Girls' education has a profound effect on their earning opportunities and in their income during their lifetime. The earnings associated with educational levels suggest that people with additional qualifications tend to have higher wages (Herz & Sperling, 2004). According to Wodon, Montenegro, Nguyen & Onagoruwa (2018) for every 100€ earned by women that did not complete their primary level of education, a woman with primary education is expected to earn 119.30€, women with secondary education 196.60€ and women with tertiary education, 423.40€.

Girls that withdraw from school early tend to earn lower salaries, leading to higher rates of poverty and a decrease in the country's human capital wealth, defined as the present value of the future earnings of the labor force. Thus, investing in girls' education improve their lives, the life of their dependents and also foster economic growth.

In conclusion, the lack of school attainment has significant effects on several different aspects of girls' lives. Girls with higher education have more earning opportunities and higher incomes, are empowered to advocate for themselves and for their children, have a more active voice in their families and in society, and are likely to live more fulfilling lives than the ones that are deprived of the same education.

### **2.3 The Mozambican Context**

Mozambique is a Sub-Saharan African country with approximately 30 million inhabitants, of which 46.3% lives in poverty (The World Bank, 2018a). In 2019, Mozambique's GDP per capita was US\$ 503.57, one of the lowest in the world, ranked 43rd of 48th within the Sub-Saharan African context (The World Bank, 2019). That reflects on the social development of

the country, ranked by the United Nations Development Programme (2019) among the countries with the lowest HDI: 180 out of 189. These conditions have a gender dimension against women, who are, on average, poorer, have lower education levels, and worse health conditions than men (UNESCO Office in Maputo, 2018). The indices for child marriage and early pregnancy in Mozambique are among the highest in the world: according to UNICEF (2015), 48% of girls get married and 40% have their first child before the age of 18. According to Wodon et al. (2017b), estimations show that ending child marriage in Mozambique could enabled a 15.6% rise in earnings and productivity.

Over the past years, the Mozambican government has shown its commitment to education. In 2020, the Education sector was allocated MT 66.3 billion, the largest ever allocation in the sector, worth 19.2% of the 2020 State Budget and 6.1% of the country's GDP. Compared to 2019, it has shown a 17% increase in nominal terms and a 9% increase in real terms (UNICEF, 2020). As a direct result of these efforts, over the last two decades, the absolute number of primary-age girls out of school decreased by 86%, from 820.531 to 110.861, and the gross enrollment for females in primary education increased from 65 to 112 (UIS, 2020). The enrollment rate includes students of all ages, including the ones that exceed the official age group. Thus, if there is late enrollment or repetition, the total enrollment can exceed the population of the age group that officially corresponds to the level of education, which leads to ratios greater than 100%. While in early 2000 49% of the girls of primary school age were out of school, in 2019, the girls in the same conditions represent only 3.7% of their age group (UIS, 2020). The completion rate for females in primary school has also risen over this period, from 12.8% to 51.2%.

The numbers have also improved in secondary education, which entails the 8th to the 12th grade. From 2000 to 2014, the number of girls out of school dropped from 65 to 47%. The enrollment gross rate increased from 4.7% to 33%, and the completion rate rose from 3% in 2000 to 24% in 2019 (UIS, 2020).

The gross enrollment rate for tertiary education has shown remarkable progress over the last two decades, rising from 0.33% to 6.53% between 2000 and 2018. Although, the low rates that persisted for several years had left their mark, and only 1.31% of the women above the age of 25 have a bachelor's degree (UIS, 2020).

Despite these achievements, Mozambique still performs below the average in the Sub-Saharan region. The country faces several challenges associated with low school attainment and the completion rate for different levels of education. Most of the children drop out of school after a few years of education, never finishing their studies. The numbers are worse for girls, who, around age 14 or 15 - at the beginning of secondary studies or while finishing primary education - stop attending school due to early marriages or pregnancy (Maia, 2008).

### **2.3.1 Causes for Low School Attainment of Girls in Mozambique**

In Mozambique, economic and socio-cultural factors are the most relevant barrier to girls' access and progress through education (Maia, 2008). These barriers include the availability, geographical location, and sanitation facilities of the schools, especially in rural areas, where most of the population live. The lack of female teachers also increases the low attendance of girls (Maia, 2008) as many families fear for their safety in a classroom with a male teacher. The families also have concerns regarding the long-distance girls have to commute to get to school, fearing potential abuses and sexual harassment (Maia, 2008).

On the economic dimension, even though there are no tuition fees for primary education in Mozambique, families incur other costs that constitute a significant burden for poor families, who are not willing to make this investment in girls' education. There's also the associated opportunity cost of girls' work since it is common for girls to be responsible for housework from a young age. High poverty rates and low household income led families to search for better economic opportunities for their daughters. As a consequence, young girls are encouraged to child marriage for security and economic gains. As a result, girls are often forced to drop out of school to assume household responsibilities. Additionally, community members believe that after the girl's first menstruation cycle they are not children anymore, and don't belong to the school, being already ready to fulfill their role as women (Maia, 2008).

Girl's education remains a concern for the Mozambican government, which still faces many challenges to ensure qualitative and accessible education for girls. The investments still lack efficiency in several areas as girls are likely to drop out of school for several reasons, not fully benefiting from the long-lasting impact of the additional years. It is highly important to increase

not only the girls but also their family's understanding and perception about education to ensure they remain in school and undertake the benefits it has to offer.

### 3. Investing in Education: Economic Gains and Losses associated with School Attainment

The low school attainment of girls can lead to several losses that range from a personal to societal level and include (but are not constrained to) economic, social and emotional factors. These losses can be translated as what the girls are deprived of achieving throughout their lives because they didn't have access to education and the opportunity to fully develop their potential, constraining their human capital and limiting their life choices.

Education has an associated opportunity cost: a measure of "what could have been" if the additional investment had been made (Chaaban & Cunningham, 2011). This section aims to highlight evidence of what an extra year of education can provide, assessing the economic gains and losses associated with girls' education.

According to Wodon et al (2018), each year of additional education is associated with an expected increase in earnings of approximately 11.7%. This estimation, however, implicitly assumes that all years of education have the same market value. Further analysis of Wodon's study "Missed Opportunities: The High Cost of Not Educating Girls" concludes that, by segmenting the data by level of study, education affects incomes as follows:

LEVEL OF EDUCATION	SALARY	NO EDUCATION	PRIMARY EDUCATION COMPLETED	SECONDARY EDUCATION COMPLETED
NO EDUCATION	100,00 €	-	-	-
PRIMARY EDUCATION	119,30 €	19,3%	-	-
SECONDARY EDUCATION	196,60 €	96,6%	64,80%	-
TERCIARY EDUCATION	423,40 €	323,4%	254,90%	215,36%

*Table 1: Salary Estimations (Wodon et al, 2018)*

To reach these estimations, the authors used regression analysis and data from three different sources: a set of surveys from the World Bank's International Income Distribution Database, used to measure human capital wealth for 141 countries; a set of publicly available

Demographic and Health Surveys for 18 developing countries, including Mozambique; and the Gallup World Poll, which covers more than 150 countries.

Another relevant contribution of this study is the analysis of the potential economic costs associated with the low educational attainment for girls, used to estimate how likely it is for individuals to be working and how much they will earn as part of the labour market. The authors used household surveys to construct a dataset that captures (1) the probability that individuals are working, based on their age, gender, and years of education; and (2) their likely earnings when working, by age, gender, and years of schooling. They also used previous estimates of human capital wealth from research conducted by Lange, Wodon, and Carey in "The Changing Wealth of Nations 2018: Sustainability into the 21st Century", which assessed 141 countries, accounting for 95% of the world's population. The methodology enables the estimation of lifetime earnings losses due to low educational attainment through wage regressions, and compute expected earnings throughout individuals' working life, based on the age and number of years of education completed.

The study concludes that, in 2014, the human capital wealth was at US\$ 737 trillion, with human capital wealth per capita estimated at US\$ 108.654,00. In high-income countries, the estimation is US\$ 500.000,00 per person, 90 times higher than the average of the low-income countries, at US\$ 5.564,00. Women accounted for 38% of human capital wealth, estimated at US\$ 283,6 trillion.

To simulate the benefits of secondary education completion, the authors relied on a model that accounts for 12 years of schooling completed for all women to estimate potential gains in earnings and thereby, the human capital wealth. As a result, it was estimated that the global losses from low educational attainment are around US\$ 30 trillion, or about 10% of the baseline value of women's human capital. In a second scenario, that takes into consideration the fact that the economy might fail to grow at a rate that can generate sufficient jobs to absorb the increasing number of educated women entering the labor market, or if the educational expansion were to negatively affect education quality due to the lack of adequate investments in inputs required to ensure learning, the losses could be reduced to US\$ 15 trillion.

The suggestion that women's human capital wealth would increase by only 5 to 10% globally with universal secondary education may be surprisingly small. However, it is important to

emphasize that this estimation takes into consideration the wealth of high and low income countries. In the latter, the simulated gains tend to be larger in proportional terms, having a profound impact on its beneficiaries. In higher-income countries, benefiting from this level of education is not enough to promote such a difference in women's lives, as they are more likely to pursue a tertiary education.

In "Measuring the Economic Gains of Investing in Girls", Jad Chaaban and Wendy Cunningham used secondary data from the International Labour Organization, World Bank, and World Health Organization to estimate the economic costs associated with low school attainment in several countries, taking into consideration three main factors: early school dropout, teenage pregnancy, and joblessness. As the lack of education constrains the development of human capital and limits a productive contribution to the economy, its economic costs measure the consequences of the depletion of human capital.

The study concludes that the marginal investments in girls can have a substantial impact on GDP growth and well-being. In the six African countries of the sample, the additional growth is equivalent, on average, to 25% of the annual GDP, which would culminate in an increase in growth rates by one to 0.5 percentage points annually. The sample does not include Mozambique, however, it clearly illustrates the importance of investing in girls education.

To conclude this rationale, it is important to consider Psacharopoulos & Patrinos' most recent work, "Returns to investment in education: A decennial review of the global literature", from 2018. The authors used a database of 1120 estimates in 139 countries to provide a series of conclusions about investments in schooling. To understand the results of their work, it is necessary to clarify that the *rate of return* on education equates the value of lifetime earnings of the individual to the net present value of costs of education. For an investment to be economically justified, the rate of return should be positive and higher than the alternative rate of return (Psacharopoulos & Patrinos, 2018). Two measures can be used to assess the importance of education rate of returns: the *private rate* of returns shows the increase in the earnings from an additional year of education for an individual, while the *social rate of returns* measures the increase in national income resulting from the same year of education (Borjas, 2004). According to the study, in countries with low-income levels, the private rate of return in education is, on average, 9.3%. In Sub-Saharan Africa, it reaches 10.5%. Worldwide, the social rate of returns to education remains constant above 10% for the last few years.

In 2002, Psacharopoulos & Patrinos estimated that primary education increases girls' earnings by 5 to 15% over their lifetimes, while boys experience a rate of return between 4 and 8%. In 2018, the authors concluded that "women continue to experience higher average rates of return to schooling, showing that girls' education remains a priority" (Psacharopoulos & Patrinos, 2018).

The evidence of these studies allows for the conclusion that the lack of education contributes to economic losses that negatively impact the women and their family's living standards and the country's condition to generate future income and increase its wealth. Therefore, education should be perceived as an investment with a positive rate of return and should be a priority in the governments' strategy to thrive and promote sustainable development.

#### **IV. Case Study: The GirlMOVE Academy**

##### **4. The GirlMOVE Academy**

Founded in 2013, the GirlMOVE is a Portuguese non-profit organization with an Academy located in Nampula and offices in Maputo and Lisbon. Under the slogan "Empowering future generations for good" the GirlMOVE aims to break the poverty cycle through women empowerment. It creates innovative models of education to amplify talent, raise gender equality and promote sustainable transformation. Its goal is to empower, through a mentorship model, girls and women in Mozambique to reach their true potential and to be the next generation of changemakers.

To achieve its goal and fulfill the mission of "lead an educational and mentorship movement which multiplies opportunities for young women who want to change the world", the GirlMOVE developed three programs.

The program *CHANGE - Blossom Your Purpose* focuses on Mozambican young women aged between 20 and 30 with a Bachelor's or a Master's Degree. It is an intensive one-year experience designed to unleash these women's potential, enabling them to develop impactful careers and promote a positive change.

*LEAD - Unleash Your Future* is a program for young college students attending universities in Nampula or Beira. It's a one-year experience to promote a life-changing impact through a

leadership program that combines a life mentor with the opportunity of serving in the community by mentoring the young girls from the program BELIEVE. The program aims to elevate the participants' talents and develop a career plan fully aligned with their desires.

The Program *BELIEVE - Follow Your Dreams* is a mentorship program focused on the development of young girls between 12 and 15 years, called *Mwarusis* on Nampula's local dialect. Over a year, the *Mwarusis* are part of an experience designed to promote their school attainment and make sure they pursue their educational path, completing the transition from the primary to the secondary level of education (GirlMOVE, 2020a).

The three programs are interconnected in a mentoring model known as the "Sisterhood Circle", in which the young graduates from the LEAD are mentored by the participants of the CHANGE and, in return, provide mentorship and support to the young girls in the BELIEVE. Together, the girls form a team composed of 1 "Champion" from the CHANGE program, 3 "Lead Mentors" from the LEAD program, and 30 *Mwarusis* from the BELIEVE program.



Figure 03: Sisterhood Circle (GirlMOVE, 2020a)

This model is the core of the GirlMOVE's methodology and promotes systemic change by creating a mentorship network and a virtuous cycle of positive transformation that has a multiplier effect on the participants' lives and in their communities.

The focus of this thesis is on the program *BELIEVE* and its impact on the life of the *Mwarusis*.

#### **4.1 The Social Intervention: The BELIEVE program**

The *BELIEVE* program focuses on young girls attending the last year of primary education and living in vulnerable contexts in urban and peripheral neighborhoods in Nampula. The program aims to ensure the girls stay in school safely and successfully, completing the transition between the 7<sup>th</sup> and the 8<sup>th</sup> grade, which marks the beginning of secondary education.

The program is an extracurricular activity performed in groups that inspires girls through a mentorship model that connects them with the “sisters”: young women from the other programs of the GirlMOVE that act as their mentors and role models for life. Throughout the academic year, the *Mwarusis* attend tailored sessions, twice a week, in groups of approximately 30, run by the *sisters*. The content and methodology of these sessions are developed to enhance the girls' skills and promote self-awareness of their potential to positively influence their community and the world around them (GirlMOVE, 2020a).

The participants of the program are girls between the age of 12 and 15 attending the 7th grade in one of the nine schools partners of the GirlMOVE in Nampula. At the beginning of each academic year, the GirlMOVE participates in assemblies in local schools to present the program, establish a dialogue and develop an interest in potential participants. Afterward begins the filling of the authorization forms to allow the girls to participate in the initiative. The groups are defined after the systematization of these records.

##### **4.1.1 The Structure and Methodology of the Program**

The foundation of the program is the established Safe Space methodology, together with the five strategic content pillars developed by GirlMOVE: Mwarusi 4 Life, Mwarusi in Motion, Mwarusi 4 School, Mwarusi Engagement and Joy Circles & Mentorship.

The *Safe Spaces methodology* is a key strategy for the protection and empowerment of women and girls in vulnerable positions (Murfet, 2017). The Safe Spaces are built in areas provided by the community, designated as a privileged place for interaction, activities, and training. In these spaces, girls and women feel physically and emotionally safe, being able to enjoy the freedom to express themselves without the fear of judgment or harm (Murfet, 2017). According to Murfet (2017), safe spaces aim to create areas where women and girls can socialize and build

social networks; receive social support; acquire and develop relevant skills; access health care services; and receive information about their rights and health.

The *Mwarusi 4 Life* aims to unlock the potential of the *Mwarusis* and support them in identifying their talents and envisioning their future. This pillar is composed of several sessions organized into six blocks: “I protect myself”, “I protect my money”, “I protect my body”, “I protect my sisters”, “I protect my choices and my studies”, and “Gamebook - Dreams Innovation Challenge”, the most recent implementation.

With the goal of improving its programs, the GirlMOVE seeks to constantly create and test new methodologies. In 2019, it created the *Mwarusi in Motion* with the intention of enhancing the girls’ socio-emotional skills through rugby and basketball. In 2020, the organization decided to test a *Dance LAB* to stimulate the *Mwarusis*’ communication through non-verbal expression. Besides the physical benefits, the dance assists in emotional development, allowing the girls to express their feelings and emotions, stimulating the mind-body connection, and increasing self-awareness, self-esteem, and self-knowledge, in addition to contributing to the development of its cultural identity (GirlMOVE, 2020c). The *Mwarusi in Motion* pillar focuses on supporting the girls to develop self-control, discipline, responsibility and commitment and strengthen the personal and inter-relational skills. It consists of weekly sessions of Rugby, Basketball or Dance.

*Mwarusi 4 School* aims to strengthen literacy levels of the girls through dynamic learning sessions and a literacy program, to unlock key skills for reading and writing and create the conditions for the girls to stay in school successfully.

*Mwarusi Engagement* is a case management and community involvement program, through family monitoring and community activation. This pillar focuses on preventing crisis and risk situations, including child pregnancy, early marriage, and school dropouts, by engaging the girls’ families and ensuring their understanding of the importance of education in the girls’ lives.

The *Joy Circlers & Mentorship* refers to the structure of the program, in which a group of 30 girls is mentored by three participants from the LEAD program and one participant of the CHANGE program, to promote a virtuous cycle of positive transformation.

### **4.1.2 The expected outcomes**

The purpose of the program *BELIEVE* is to “contribute so that adolescent girls can have greater access to secondary education, develop life skills, and believe that their education is the best investment for their future, constituting themselves as resources for community development.” (GirlMOVE, 2020c).

To achieve that, the GirlMOVE has established four key outcomes that are in alignment with the Mozambican strategic goals for education for the years 2020 to 2029 (Republic of Mozambique: Ministry of Education and Human Development, 2020):

1. Achieve  $\geq 80\%$  rate of transition between the 7th and the 8th grade;
2. Achieve  $\geq 90\%$  rate of school attainment for the Mwarusis during the program;
3. Achieve  $\leq 2\%$  rate of early pregnancy of girls in the program;
4. Achieve  $\leq 2\%$  rate of early marriage of girls in the program;

Since 2014, the program has impacted 4471 girls in Mozambique and achieved all the expected outcomes. The accumulated result from the programs editions show that it has achieved:

1. 85% transition rate;
2. 94% rate of school attainment;
3. 2% rate of early pregnancy;
4. 1% rate of early marriages.

The following chapter will focus solely on understanding the organization measurement system and processes to obtain these results. The final goal of the study is to support GirlMOVE in overcoming challenges associated with this process and enable a better comprehension of the program’s impact.

## **5. Impact Assessment of the Program BELIEVE**

### **5.1 The Current Measurement System**

The BELIEVE’s measurement system provides quantitative results about the program that can be used to understand how it is performing against its objectives. Results from previous years are used by the organization to promote the effectiveness of the program and have shown that

it has constantly achieved its KPIs, allowing for the conclusion of the program’s success and its potential to create impact in the beneficiaries’ lives.

### 5.1.1 The Theory of Change

The GirlMOVE is a non-profit organization driven by the purpose of transforming society through female leadership. Having articulated its long-term vision, the organization mapped different outcomes and associated them with programs (social interventions) that would lead to the desired result.

The figure below illustrates the ToC of the program BELIEVE.

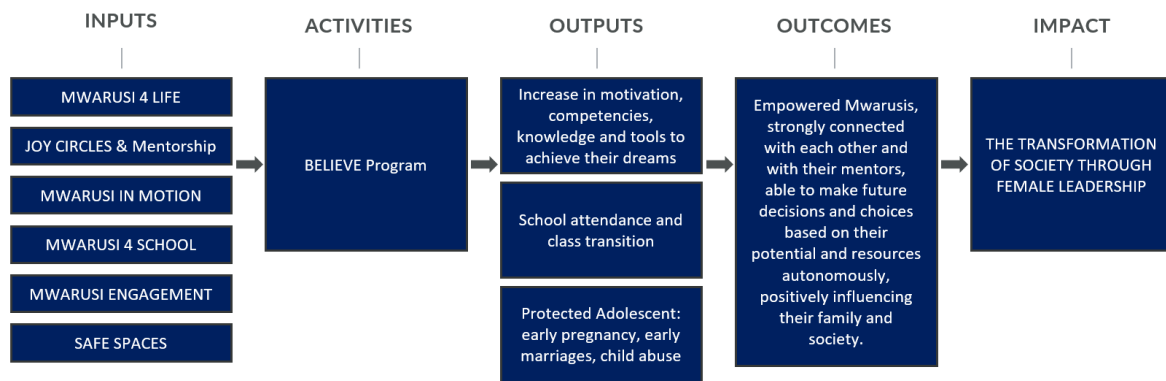


Figure 4: The BELIEVE program Theory of Change (GirlMOVE, 2021)

According to the ToC framework presented in Chapter 1, the following elements can be identified: As inputs, the GirlMOVE defines the Safe Spaces methodology and the program's five strategic pillars, each one with a structured programmatic program. These inputs are the key components of the BELIEVE, defined as the main activity, or the action that needs to be carried out for the organization to achieve its objectives.

The program outputs are the Key Performance Indicators used to assess if it is achieving the desired outcomes, defined as (1) Increase in the girls' motivation, competencies, knowledge, and tools to achieve their dreams; (2) Increase school attendance and class transition; and (3) Ensure adolescent protection, by preventing early pregnancy, early marriages, and child abuse.

Following the ToC logic, these outputs will lead to the program's impact, which reveals the lasting effect on society the program aims to achieve, defined as “Empowered Mwarusis, strongly connected with each other and with their mentors, able to make future decisions and choices based on their potential and resources autonomously, positively influencing their family and society”.

Through this logic model, it is possible to identify the organization’s goal of creating long-term value for the Mwarusis by ensuring that remaining in school, completing the primary education, and transitioning to secondary education will reduce the negative effects of the low school attendance and provide them with more life opportunities, empowering them to have a participatory role in society beside wife and motherhood.

### 5.1.2 The Impact Metrics

To collect the data to assess if the BELIEVE is achieving the expected results, the GirlMOVE has defined fifteen indicators, organized into three different categories:

- Key Performance Indicators (KPIs), that assess the expected results of the program;
- Complementary indicators, used to assess the girls’ educational progress and personal development during the program;
- Process indicators, focused on the evaluation of the *Mwarusis* participation through the program, including their level of attendance, and permanence.

The tables below provide details about these indicators

CATEGORY	INDICATOR	DESCRIPTION	GOAL	BASELINE
KPI	Mwarusis’ transition to secondary education	Reflects the number of the girls enrolled in the 7 <sup>th</sup> grade at the beginning of the program, were approved on the exams to access the 8 <sup>th</sup> grade, and conclude the enrollment application, completing the transition between the first and secondary education.	≥ 80%	<ul style="list-style-type: none"> <li>• Results from previous editions of the program</li> <li>• Results from the city or province (previous year)</li> <li>• School results (if available)</li> </ul>
	School attainment rate	Refers to the permanence of the Mwarusis at school during the program, or the proportion of girls who do not stop studying after being integrated into the project.	≥ 90%	

	Early pregnancy rate	Reports on the girls who got pregnant after being integrated into the project.	≤ 2%	
	Rate of early marriage	Reports the number of girls who got married while being part of the program.	≤ 2%	

Table 2: Key Performance Indicators (GirlMOVE, 2021)

CATEGORY	INDICATOR	DESCRIPTION	GOAL	BASELINE
COMPLEMENTARY	Average level of literacy	To be verified through the Early Grade Reading Assessment (EGRA) exam. All the Mwarusis take the exam at the beginning of the program. At the end of the program, the girls with at least 60% attendance at the sessions retake the test.	Increase of 30%	Comparison between initial and final results from the exams
	Average level of financial literacy	To be verified through a financial literacy exam. A sample of 40 girls from each neighborhood will take the exam at the beginning and the end of the program.	Increase of 20%	
	Average level of skills for life	These indicators are to be verified through interviews with a sample of 40 girls from each neighborhood.	Increase of 20%	Comparison between initial and final results from the interviews
	Average level of self-esteem		Increase of 30%	
	% of girls with a life plan	These plans are exercises the girls will perform in the sessions. This indicator reflects the percentage of girls who complete the exercises and create their plans.	≥ 80%	By checking the number of girls who did the exercise and calculate the percentage of the girls.
	% of girls who improve results in their life plan		≥ 60%	
	% of girls with security plans		≥ 80%	
	% of girls with saving plans		≥ 80%	
Average level of ability to make informed decisions about the future.	To be verified through an exercise that a sample of 40 girls from each neighborhood will complete one month before and one month after a specific set of sessions.	Increase of 20%	Comparison between initial and final results	

Table 3: Complementary Indicators (GirlMOVE, 2021)

CATEGORY	INDICATOR	DESCRIPTION	GOAL	BASELINE
PROCESS	Level of Attendance	Average level of the girls attendance on the sessions	≥ 80%	Results from previous editions
	Level of Permanence	Percentage of girls who conclude the program after a year	≥ 90%	
	Number of Participants	Number of girls enrolled in the program	1200	

*Table 4: Process Indicators (GirlMOVE, 2021)*

The data is collected manually by the program mentors, who, for safety reasons, cannot use electronic devices to conduct this process. Hence, they use paper forms or lists, filled at each session, and passed to the program's Coordinator, who transfers the information to a digital database.

Twice a week, the GirlMOVE team meets to discuss the girls' progress. The continuous evaluation of the process indicators allow the team to identify behaviors that can lead to school abandonment. These behaviors can indicate a problem in the girls' lives and are mapped to prevent critical incidents.

## **5.2 Analysing the Measurement System through the IMP**

The GirlMOVE has shown capacity in designing and delivering social interventions to achieve its impact goals. The program BELIEVE, launched in 2014, has consistently achieved its indicators goals, demonstrating its potential to promote positive change. Moreover, the organization has the resources needed to monitor the outcome of its programs and improve them, constantly innovating and adapting.

This chapter provides an analysis and discussion of BELIEVE's current measurement system through the optics of the Impact Management Project (IMP) framework, assessed through five dimensions that provide a clear understanding of what the intervention wants to achieve, who are the beneficiaries, how the intervention affects them, how would their lives be like if they did not have access to the intervention, and what are the risks associated with implementing the intervention. To support the articulation between the elements being assessed, the chapter takes into consideration the ToC.

### **5.2.1 Discussing the program outcomes**

According to Epstein & Yuthas (2014), for a measurement system to be efficient, it needs to provide a clear understanding of *what* is being measured. This assists organizations in identifying the outcomes they are contributing to and their importance to the stakeholders.

GirlMOVE creates educational programs to ensure women development and empowerment to become future leaders to transform society. Hence, it performs a set of activities that are organized within three different programs. Each program has its own characteristics, but, overall, they aim to enhance participants' life opportunities to allow the fulfillment of their changemaker potential.

The BELIEVE program focuses on ensuring girls remain in school and conclude primary education. Girls with a primary education earn, on average, 19.3% more than girls that do not complete this level of education (Wodon et al., 2018). The main effects of low school attainment in Mozambique are early practices of marriage and pregnancy. By ensuring the girls stay in school, the GirlMOVE prevents them from engaging in these situations. Hence, in its essence, the BELIEVE program can promote long-term changes in its beneficiaries' lives because it allows the girls to experience, in the short-term, the positive effects of education and develop the critical thinking to internalize its importance. Once they understand education as a fundamental right of the human condition, they are empowered to make more informed decisions about their lives, including their education. That can eventually allow them to remain in school during secondary education and reduce the levels of engagement with situations that cause school abandonment. Through the BELIEVE program, the GirlMOVE reduces the negative effects of low school attainment and ensure girls have access to better life opportunities associated with additional years of education. But that can only be achieved on the long term if the girls embrace this new perspective on education as an enabler for future opportunities.

These findings allow for the development of a revised ToC, articulated as following: If the GirlMOVE has the financial resources and the strategic programmatic content to develop the BELIEVE program, it can ensure higher school attainments for girls in Mozambique, preventing them from engaging in early marriages and pregnancies, and allowing them to develop critical awareness to keep pursuing the educational path that will lead to better life opportunities.

To ensure an effective measurement of the outcomes, it would be necessary to keep monitoring the girls as they progress through higher levels of education. That would allow for an enhanced understanding of the girls' critical thinking and their ability to make informed decisions, especially regarding their education and their role as women in society. Some results of the program can already be measured at the end of the school year - for instance, the percentage of

girls that graduate and enroll in the 8th grade. But as the girls start secondary education, they are still susceptible to the negative effects of low school attainment. According to UNICEF (2015), 48% of Mozambican girls get married and 40% have their first child before the age of 18. If the girls do not embrace a change of mindset and a positive perspective on the benefits of education, the chances are high for them to drop out of school over the next few years. Therefore, to effectively understand the results of the BELIEVE program in the life of its beneficiaries, it is advisable to follow their progress through secondary education.

### **5.2.2 The program beneficiaries**

The beneficiaries of the program BELIEVE are young girls between 12 and 15 years old attending the 7th grade in one of the nine schools where the GirlMOVE operates in Nampula, Mozambique. The schools are in neighborhoods chosen based on criteria that highlight their complex human development conditions. That, aligned with GirlMOVE's ambition to promote the program to 100% of the girls enrolled in the 7th grade within these neighborhoods, evidence the organization's concerns in serving a target group directly impacted by the societal issue.

### **5.2.3 Analysis of Potential for Societal Impact**

A social intervention can be considered successful according to its potential to create societal impact. That relates to the capacity it has for generating a long-lasting change in the life of its beneficiaries. The “How Much” dimension assesses how the stakeholders experience the outcomes and their relevance.

The assessment of the program *BELIEVE* was done in a two-step analysis. It starts with a critical comparison between the causes for low school attainment and the strategic components of the program *BELIEVE* to elucidate the alignment between the program and the societal issue. Sequentially, the findings are used to conclude the significance of the intervention outcomes across scale, depth, and the duration of the program.

#### **5.2.3.1 Preventing the Causes of Low School Attainment**

According to the research conducted within the scope of this study, there are several causes for girls' low school attainment, here organized into two dimensions, intrinsically connected to the girls' lives within their communities: the (1) Socio-Economic and Cultural and (2) School Level Barriers.

Within the Socio-Economic and Cultural barriers, cultural norms, religious beliefs, and traditional costumes have a heavy impact on girls' possibilities to pursue an educational path. The *BELIEVE* program tackles these barriers through *Mwarusi Engagement*, a foundation pillar that involves the community and the girls' families in the girls' education to prevent risky situations and clarify how education can lead girls towards successful paths. This pillar, along with *Mwarusi 4 Life*, also focuses on preventing two of the most severe causes of school dropout: Child marriage and early pregnancy. When family members understand the importance of education, get inspired by its potential to unlock future opportunities, and start actively engaging with it, they can embrace a new mindset and have a different understanding of the opportunity costs associated with girls' education. That can lead to a behavioral change essential to support girls remain in school and avoid early marriages. And when girls deepen their knowledge, develop critical thinking and empower themselves through education, they can shift their perspectives to visualize new opportunities for their lives that do not include early practices of marriage or child-birth.

In terms of School Level Barriers, the geographic distance and the safety concerns associated with the journey the girls need to overcome to get to school can also be alleviated through the program. Through *Joy Circlers & Mentorship*, the GirlMOVE supports the creation of community groups that can increase the safety among the girls, as they tend to bond, walk-in groups, nourish relationships, and pay more attention to each other.

The lack of female teachers is another cause for school dropout that the BELIEVE tackles. Through the mentoring pillar of the program, the girls internalize the importance and value of having role models. That, associated with the understanding of the positive aspects of education the girls embrace through *Mwarusi 4 School*, can positively influence and inspire the girls to become future teachers or mentors to enhance the educational opportunities of younger girls.

These findings show a high level of alignment between the program's strategic pillars and the causes for the societal problem it aims to solve, revealing the GirlMOVE's purposeful intentions to design an intervention focused on its benefits for the stakeholders.

### **5.2.3.2 Positive Effects of Educated Girls**

Low school attainment causes several dysfunctions in society. By ensuring the conclusion of primary education, the BELIEVE program can positively influence:

- (1) Population growth controls, as women with higher levels of education tend to have fewer children and smaller families;
- (2) Early pregnancy and child marriage: when girls stay in school, the chances that they follow the path towards engaging with these practices are significantly reduced;
- (3) Earning opportunities: Educated women are able to find better job opportunities and receive higher incomes, positively affecting the country's wealth creation;
- (4) Enhance female participation in society and in democracy: education is empowering;
- (5) Promote more fulfilling lives: when women are able to make choices about their own lives when they have the freedom of choice, they have the chance to live more fulfilling lives, enhancing their human potential.

#### **5.2.3.4 Scale, depth and Duration of the Program**

The “How Much” dimension can be assessed through three categories: (1) *Scale* refers to the number of people experiencing the results of the intervention (2) *depth* refers to the degree of change the stakeholders experience, or how much it affects their lives, and (3) *duration* refers to the time for which the stakeholder experiences the outcome.

The *process indicators* provide the data to assess the *scale* of the program, defined by the number of participants per year.

The *depth* category can be assessed by the *complementary indicators*, that establish a comparison baseline between the girls' level of literacy and self-knowledge at the beginning and the end of the program. There is enough evidence to conclude that the content pillars of the program are strategically aligned with significant causes for low school attainment, which ultimately has led to a positive increase in these indicators.

The *duration* category encompasses the period the girls are exposed to the program but can also reflect the long-term effect on their lives. That is currently a weakness of the measurement system, as it fails to and evaluate the long-term effects of the program.

#### **5.2.4 Understanding the Contribution of the program**

The *contribution* dimension refers to the understanding of what could have happened to the intervention beneficiaries in the absence of the activities. For the BELIEVE program, that can be described through a comparison between the program KPIs and the average statistics for Nampula and Mozambique.

According to the Mozambican Strategic Educational Plan, the transition rate between the 7th and 8th grades is 60.7%, while the GirlMOVE achieves rates of 85%.

UNICEF (2015) data show that 14% of Mozambican women get pregnant before their 15th birthday: a rate the GirlMOVE has to manage to keep to 2% for the program participants. According to UNFPA (2014), “the factor that has the largest impact on the prevalence of child marriage is school attendance: only 6% of girls aged 15-17 attending school had been married, compared to almost half of girls who have never attended or have left school.”

The data collected over the past years shows the program BELIEVE had continually achieved better results than the average statistics, leading to the conclusion of its positive contribution.

#### **5.2.5 Mapping the Associated Risks**

According to the IMP, organizations can face nine types of risk, that can be assessed considering both their likelihood of happening and the potential consequences.

This assessment takes into consideration the three most relevant risks for GirlMOVE.

1. High External risk: Global pandemics, natural disasters, and social distress, among others, have a high impact on developing countries, where economic and political systems tend to be less stable. As a consequence of these externalities, GirlMOVE could face difficulties in ensuring the development of its activities. It is the case of what happened during the COVID-19 pandemic, when school regulations were implemented, or the social uncertainties caused by the acts of terrorism in Cabo Delgado, north of Nampula.

2. High Drop-off risk: In Mozambique, 51.2% of girls finish primary education, but only 24% conclude secondary education. That means that after graduating from the program, the girls are still at a risky age for school abandonment. That could compromise the endurance of the long-term effect of the program.

3. Execution risk: the program relies on the active role of the mentors, young women participating in the LEAD program. Their involvement and participation are core to the BELIEVE methodology and structure. That means that a lack of commitment on their part could culminate in several risks for the program's operational execution.

The next chapter propose a few initiatives that, if implemented, could support GirlMOVE in reducing these risks.

## **V. Proposal for Long-Term Assessment**

The effects of education can be perceived through several dimensions. Some are quantifiable and can be assessed through learning metrics, transition and progress rates, or number in access, inclusion, and gender equality. Others, more subjective, are associated with human development and the inherent nature of education as a human right. Measuring the impact of education, thus refers to understanding the long-lasting benefits someone can experience throughout their life, adding yet another dimension: time.

This study presents evidence that suggests the GirlMOVE would benefit from expanding its measurement system to evaluate the girls' progress through the following years of their education. By monitoring the current KPIs throughout their permanence in secondary education, the GirlMOVE can understand its potential in creating and maintaining the desired outcomes that will lead to its impact goal.

A proposal for long-term assessment of the program consists in choosing a random sample of the girls from the current class to keep monitoring through secondary education. The size of the sample would vary accordingly to the communication channels available on the girls' side, but it should be representative, including girls from all different neighborhoods, and entails from 10 to 20% of the program participants, to ensure that if there are any communication challenges with the girls throughout the following years, the organization still has satisfactory data.

For continuity reasons, the same KPIs would be assessed, with the inclusion of an interview to monitor the development of the girls' self-awareness, critical thinking and decision making. That would be important to understand if there were any changes in behavior that could be associated with their time within the program.

The results of this sample would be compared with school numbers or municipality metrics. For the behavioral assessment, it would be important to have a control group to conduct interviews and have a comparison baseline. Ideally, the control group would also be assessed on the same key performance indicators, but that could be done in a second stage.

GirlMOVE currently faces challenges maintaining contact with the girls after they finish the program, which could be a barrier to this process. Often enough, the families change their contact numbers, usually due to the lack of payment of the bills. Although the organization keeps three contact numbers for each girl, these situations happen frequently enough to be considered a key challenge. Nevertheless, the GirlMOVE has the know-how and the resources to overcome these challenges by deploying practices to ensure the girls' engagement with the program during secondary education. There are some initiatives GirlMOVE could implement:

- The Joy Circles methodology is a component pillar that could be strategically used to support the effect of the program in the girls' lives throughout their years in secondary education. According to Bloom (1984), mentoring is potentially one of the most effective promotional measures in pedagogy;
- GirlMOVE could promote yearly events at the GirlMOVE Academy to gather the former participants of the program to reinforce their sense of identity, enabling connections and strengthening the sisterhood network to enhance positive behavior;
- GirlMOVE can also implement an “ambassadors” program, choosing up to three girls from each neighborhood, to maintain the network and connection between the girls and ensure the circle of joy remains in their lives;
- If the girls keep living in the same neighborhood, it is likely they will see the younger girls participating in the program and will still connect to it. Thus, the importance of creating opportunities for the girls to keep engaging with each other and the program reference - through events or the ambassadors - and for GirlMOVE to keep strengthening its relationship with the communities it operates.

## **VI. Conclusions**

Brazilian author and educator Paulo Freire consider education a *political act*, “as it provides individuals a critical and transformative awareness to perceive and interact with the world” (Freire, 1987). Education allows people to develop a critical consciousness and to connect with their true potential. It enhances cognitive skills, promotes human development and access to

better life opportunities. Education “is one of the most powerful tools in lifting socially excluded children and adults out of poverty and into society” (UNESCO, 2020b)”.

The constructs that underline the BELIEVE program reinforce education as a human-building practice to develop citizens with critical awareness. That is the GirlMOVE’s main contribution: support girls develop critical thinking, enhance their cognitive skills, and avoid engaging in situations that can ultimately lead to school abandonment, so they can enjoy the life-longing benefits of completing their educational paths and achieve better life opportunities. Women with higher education are empowered to advocate for themselves and to live more fulfilling lives, increasing their participation in society beyond their role as a mother or a wife.

This study elucidates the importance of investing in female education by presenting insights and evidence on the economic losses and gains associated with education, concluding that women with primary education earn, on average, 19.3% more than the ones with no education, and women with secondary education receive, on average, 64,79% more than women with primary education (According to Wodon et al, 2018). In Sub-Saharan Africa, the rate of return in education is higher than other regions of the world, reaching an average of 10.5% over the last years (Psacharopoulos & Patrinos, 2018). That reinforces the importance of ensuring that girls in Mozambique not only have access to education but achieve a higher qualification level.

By understanding the causes of the societal issue and strategically developing a program with pillars that focus on addressing these causes, GirlMOVE creates value through the BELIEVE program, ensuring that girls stay in school and complete the primary education.

However, many of the problems associated with education in Mozambique are associated with high dropout rates during secondary education. Hence, it is necessary to understand the long-term effect the program has on the girls’ lives by measuring the KPIs over the following years with the goal of understanding if the girls were able to adopt a new mindset about education and are able to achieve better life opportunities. Thus, the proposal for expanding the scope of the BELIEVE program measurement system to have a more robust assessment of its effectiveness.

This thesis analyzes different studies to understand the complexity of female education in developing countries, specifically in Sub-Saharan Africa. It can be used as a resource for the GirlMOVE and other educational organizations to elucidate the development of interventions that can strategically focus on the causes and effects of low school attainment. These

conclusions can be further explored by GirlMOVE and other organizations interested in creating and evaluating the impact of social interventions and in conducting long-term studies in the field of female education. The limitations of the study refer to the theoretical characteristic of its proposals and the lack of available data to support its assumptions.

Understanding the social, cultural, environmental, and economic context in which an intervention is developed is essential to ensure the design of an effective measurement system. That, aligned with the capability of being clear about the change the intervention aims to achieve, is key to impact measurement. Hopefully, the efforts in uncovering the challenges and opportunities associated with education and its benefits, will allow organizations to develop more effective interventions to tackle this issue.

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