YOUTH EMPLOYMENT CHALLENGE AND ENTREPRENEURSHIP IN SWAZILAND[1]

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Abstract

Swaziland faces a major youth employment challenge, as evidenced by the highest youth unemployment rate in Africa and widespread youth idleness. Utilizing the first two (2007 and 2010) Swaziland labor force surveys, we illustrate the youth labor market disadvantage, suggesting that policies need to focus on the demand side of the labor market. The evidence from focus group discussions with young Swazi entrepreneurs points to numerous constraints to youth business start-ups, with the lack of entrepreneurial skills and start-up capital as key. To reflect these facts, we develop a model where due to the lack of skills young entrepreneurs have difficulties to turn their ideas into businesses and analyze policies such as training and start-up subsidies. Measures to narrow entrepreneurial activity gaps between youth and adults are also examined. The paper concludes with international experiences on successful youth entrepreneurship policies that could inform design of such interventions in Swaziland.

JEL classification: J11, J08, L26, O11

Key words: youth entrepreneurship, model of skills and structural transformation, policies

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1. Introduction

Despite strengths such as favorable location, good infrastructure, diversified production base and labor force equipped with basic skills, Swaziland is one of the least growing countries in Africa. The country grew on average only by 2.3 percent a year during 2001–11, was well below the average 5.8 percent a year growth of sub-Saharan Africa (IMF, 2012). Swaziland's low growth contributed to high unemployment and widespread poverty. A key factor behind the country's sluggish growth performance and employment was the underdeveloped private sector, especially the limited role of small and medium enterprises (SMEs) in the economy.

At more than 50 percent of the labor force (according to 2007 and 2010 Swaziland Labor Force Surveys), youth unemployment in Swaziland is higher than in any other African country. Still, depending on the residential area, the youth labor market disadvantages have different forms: youth in urban Swaziland is impacted by unemployment, as it is almost triple of the adult rate. In contrast, in rural areas the difference between youth and adult unemployment is less pronounced, but young people are notably more discouraged from the labor market participations than adults. Overall, in Swaziland employment rates are low, reflecting limited private sector job creation, both in the formal and informal sector.[2]

In 2011, Swaziland experienced major fiscal challenges and liquidity shortages, which the government mitigated in part by hiring freeze in the public sector and accumulating arrears to the private sector, especially SMEs. The labor markets were thus a key channel in transmitting the fiscal crisis to households. A cross-sectoral, nationally representative survey carried out by the UN Swaziland in November 2011 found that 7.3 % of households had at least one member who lost job during 2011.[3] The challenging labor market conditions impacted youth as well, especially those entering the labor force (UN Swaziland, 2012).

With high youth unemployment and the underdeveloped private sector, structural transformation to create productive jobs, including through entrepreneurial start-up by young people, are key policy priorities for the country.[4] The government has undertaken some steps to tackle the youth employment challenge. In particular, it established the Youth Enterprise Fund (YEF) at the end of 2009, aiming at reducing youth unemployment through provision of start-up business capital for youth. While this initiative is a step in the right direction, it would need to be significantly scaled up to make a dent in youth unemployment. Moreover, in part due to the fiscal crisis of 2011, the YEF has been experiencing low repayment rates from its members and funding issues from the government, raising questions about its sustainability.

The main objective of this research is to analyze the youth employment challenge in Swaziland and suggest mitigating policies. Towards this the paper first documents the youth labor market disadvantage in Swaziland, utilizing descriptive statistics and the multinomial logit model. Second, summarizing findings of recent focus group discussions (FGDs) with young entrepreneurs, the paper provides evidence on the key constraints to youth business start-ups. These include the lack of entrepreneurial skills, the limited start-up capital, and poor tailoring of entrepreneurship programs to youth. Third, reflecting these facts, the paper

[2] In North African countries unemployment is predominantly youth phenomenon. Unlike in North Africa, in Swaziland most of the unemployed youth are less skilled than their employed counterparts.

[3] Further, 4.4% of households experienced wage cuts, 4.9% reduced operations in their businesses, and 4.7% were told that their member may lose job or experience wage cut in the future.

[4] This is consistent with recent findings on Africa by Page (2012), who argues that while active labor market policies and other measures on the supply side of the labor market can play a role, the solution to youth employment challenge needs to come mostly through structural transformation and supply side.

develops a model of structural transformation to high productivity activities, where young entrepreneurs have less experience/skills with start-up than adults. Policies aimed at overcoming these constraints, such as youth entrepreneurship training and start-up subsidies, are then analyzed.[5] Finally, the paper confronts the model findings with international experiences on successful youth entrepreneurship interventions.

Relative to the existing literature on labor markets in Swaziland and in Southern Africa, our work is novel and adds value in three aspects. First, it utilizes the first time ever (2007 and 2010) Swaziland Labor Force Surveys to shed light on the scale, forms and causes of the labor market disadvantages experienced by the Swazi youth.[6] Beyond Swaziland, this information is useful for the other SACU countries that aim to reach inclusive and sustainable growth in the midst of widespread youth unemployment, income inequality and the highest HIV rates in the world. Second, the paper summarizes findings of the recent UNDP Swaziland FGDs with young entrepreneurs that can also provide information on likely youth entrepreneurship constraints in other Southern Africa countries. Third, extending the frameworks of Brixiova (2009) and Brixiova (2013, forthcoming) for entrepreneurial skill shortages, paper develops a model of youth entrepreneurship constraints and applies it to Swaziland policy challenges.

Beyond Swaziland and Southern Africa, our paper is timely and adds value to ongoing analysis on youth employment challenge in Africa. With the global financial crisis turning into job crisis, youth employment challenge became a key policy issue also in Africa. Our research thus takes place at the time of heightened interest among African policymakers and academics to improving prospects for decent employment for the African youth, including through youth entrepreneurship.[7] This paper contributes to this debate with insights from a small, land-locked, middle income country with the highest youth unemployment in Africa.

The paper is organized as follows. After this Introduction, Section 2 outlines the main characteristics of the Swaziland youth labor challenge and its causes with descriptive statistics and the multinomial logit model. Constraints to youth entrepreneurship also presented in this Section. Section 3 then develops model of structural change and youth entrepreneurship, with focus on skill shortages. Section 4 analyzes possible policies to address the youth disadvantages in business start-ups such as government support for training and start-up capital. Section 5 compares the results of the model with experiences of other countries that successfully implemented youth entrepreneurship interventions. Conclusions and summary of policy recommendations are in Section 6.

2. Evidence on youth employment challenge in Swaziland

In 2010, youth (people of ages 15 – 24 years) amounted to 300,000 or 43% of Swaziland working age population (Figure 2, Annex I). The share of youth in the population aged 15 years or above was above not only the average in Southern Africa, but also sub-Saharan

[5] The emphasis on the young population is warranted by the particularly heavy 'youth bulge' that the country has been experiencing and the youth unemployment rate that is high even by regional standards. Moreover, the youth employment crisis in Swaziland is unfolding in the midst of the highest HIV rate in the world. This dual challenge needs to be addressed by appropriate policies, for example w.r.t. human capital accumulation.

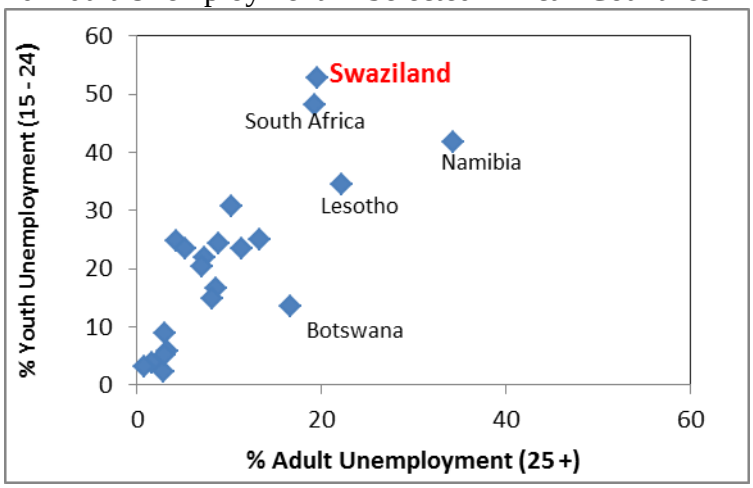
[6] Data from the 2007 and 2010 Swaziland labor force surveys are of high quality, as the survey methodology adhered fully to the ILO standards. The sample (over 3,000 households and more than 13,000 individuals) was sufficiently large and well-sampled to derive nationally representative and statistically robust indicators.

[7] For example, a joint initiative on 'Job Creation for Youth in Africa' is being launched between the African Union (AU), Economic Commission for Africa (ECA), African Development Bank (AfDB) and the International Labour Organization (ILO). Promoting youth employment was also the special theme of the African Economic Outlook 2012. Promoting youth employment was also the special theme of the African Economic Outlook 2012.

Africa (SSA) and the least developed countries world-wide. Due to the ongoing demographic transition, dependency ratio is projected to decline rapidly, presenting a potential demographic dividend.[8] However, Swaziland will reap this dividend only if its labor force is equipped with relevant skills and employed or self-employed in productive jobs.

Currently, a large share of the Swaziland labor force, and especially its young population, is underutilized. For example, youth unemployment rate is higher in Swaziland than anywhere else in Africa, including countries in Southern Africa (Figure 1).[9] In addition, a substantial portion of youth has been discouraged from participating in the labor market, resulting in very low employment rates for the youth (Figure 2, Annex I). The labor market deteriorated further in the aftermath of the fiscal crisis of 2011, making the job search challenging especially for the young generation entering the labor force for the first time (UN Swaziland, 2012).

Figure 1. Youth and Adult Unemployment in Selected African Countries



Source: Based on SLFS (2007-10) and AfDB et al. (2012). Note: Countries other than Swaziland were included based on data availability in the ILO KILM, 7th Edition. The unemployment rates are in % of the labor force.

2.1 Youth labor market disadvantages

Utilizing the data from the first two (2007 and 2010) Swaziland labor force surveys,[10] the sections below document the labor market disadvantages faced by youth. A range of indicators is utilized to highlight the more vulnerable youth sub-groups.

a. Youth disadvantage as a lack of jobs

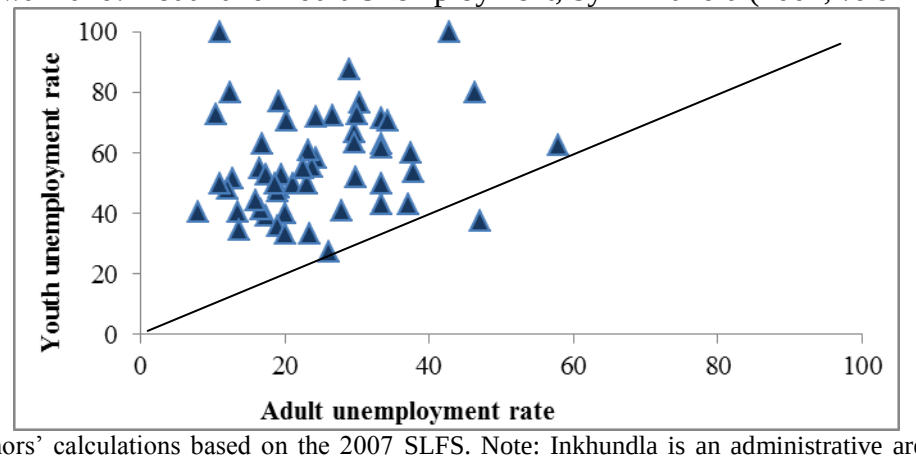
In 2007 and 2010, the unemployment rate in Swaziland was 28.2 and 28.5 percent of the labor force, respectively – one the highest among Africa's middle income countries. However, the stable unemployment performance masked the declining employment rates due to reduced labor force participation. Indeed, if the labor force participation in 2010 stayed at the 2007 level, the unemployment rate would reach 35.5 percent of the labor force. So while the official unemployment rate has not changed between 2007 and 2010, employment rates

[8] Dependency ratio is people below 15 and above 64 years old relative to the working age population (15 – 64).
[9] Overall unemployment is higher in Swaziland than in other SACU countries (Table 1, Annex I).
[10] The surveys adhered to ILO standards. More than 3,400 households (covering more than 13,000 individuals) were sampled through 2-stage sampling design. Interviews were conducted in person at each sampled household.

decreased across all major age categories (Figure 2, Annex I).[11] Swaziland's employment rates are low even relative to other middle income countries in Africa (Figure 3, Annex I).

Youth unemployment is a serious problem in Swaziland. Already in 2007, before the GFC and the 2011 fiscal crisis, the youth unemployment reached 53 percent of the labor force aged 15-24 years and the average youth/adult unemployment ratio in the country was 2.7. If the 2010 labor force participation remained at 2007 level, the youth unemployment would be 58.8 percent of the labor force aged 15 - 24 years. Despite Swaziland's small size, substantial differences in this ratios existed among regions and administrative areas (Figure 2). Still, in all but two administrative areas unemployment rate was higher for youth than for the adults.

Figure 2. Swaziland: Youth and Adult Unemployment, by Inkhundla (2007, % of labor force)



Source: Authors' calculations based on the 2007 SLFS. Note: Inkhundla is an administrative area. Given the small sample size per administrative region, these figures are indicative, but reflect well the overall trends.

The youth unemployment is particularly pronounced in the urban areas, where the rate was more than triple the adult rate, pointing to a strong labor market disadvantage of youth relative to adults. In urban areas the unemployed youth accounted for about 45 percent of all unemployed, with more than one out of five young people being unemployed. As far as the absolute numbers of people impacted by unemployment, most unemployed were in the 20 – 24 years age category, accounting for more than 30% of all unemployed (Table 2, Annex I). [12]

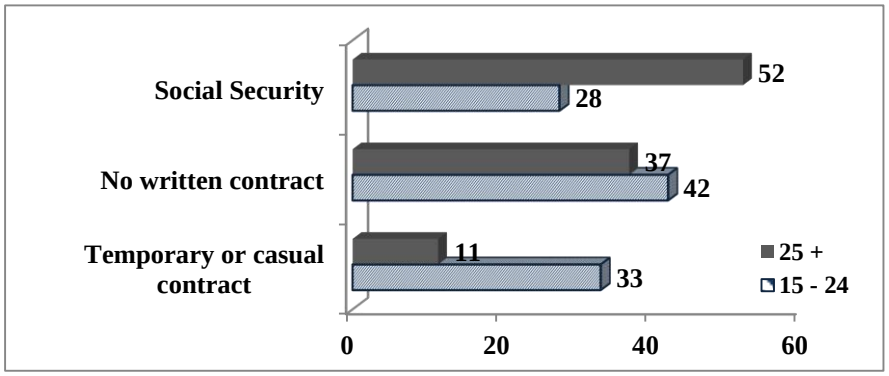
b. Youth disadvantage as holding of lower quality jobs

The quality of employment – in terms of job security and wages – is another dimension where youth labor market outcomes in Swaziland are inferior to those of adults. The lack of employment with contracts among young people implies the lack of protection by the labor code and/or adequate protection against health risk and the old age (Kolev and Saget, 2005). As common all over the world, Swaziland youth also has lower job security than adults.

Young people are also less likely to work in the public sector than adults (in 2007, only 6 percent of youth were employed in the public sector, in contrast to 31 percent adults). Within private sector, youth are less likely to work in high value-added/high-paying private services such as financial intermediation, real estate and related business activities (Table 2, Annex I).

[11] The deterioration was in part because of the negative impacts of the global financial crisis on selected sectors (e.g., manufacturing). According to SACU (2011), at least 3,000 workers lost jobs in the textile sector in 2009.
[12] With these rates and trends, the youth unemployment is not sustainable and ceases to be an economic issue only. If unaddressed, the low and declining youth employment could lead to social and political unrests.

Figure 3. Swaziland: Quality and security of employment in 2007, (% of employed)



Source: Authors' calculations based on 2007 SLFS.

c. Youth disadvantage as idleness and discouragement

Long duration of unemployment is another disturbing characteristic of the Swaziland labor market, including in its youth segment. In 2007, 75 percent of unemployed Swazis aged 15 - 24 years were available for employment for more than 1 year (SLFS, 2007). The existence of large group of jobless young people who do not even look for work (discouraged) is also prevalent, especially among female and rural area young adults (ages 20 – 24 years) (Table 1).

Table 1. Selected indicators of youth idleness and discouragement

		Area		Gender	
	Total	Urban	Rural	Male	Female
Relaxed' unemployment rate (% of LF)					
Total (15 +)	36.6	27.5	45.3	30.8	42.7
Youth (15 - 24)	63.2	55.7	69.2	59.2	66.8
Adults (25 +)	27.9	19.4	36.5	22.7	33.7
Discouraged workers (% of population)					
Youth (15 - 24)	9.1	8.2	9.7	7.3	10.8
Teenagers (15 - 19)	6.8	7.2	6.6	5.7	7.8
Young adults (20 - 24)	11.8	9.1	13.8	9.2	14.0

Source: Authors calculations based on 2007 SLFS. Note: 'relaxed' definition of unemployment captures discouraged workers, who have not been looking for job because they have lost hope of finding one.

d. Young people with tertiary education are also disadvantaged relative to adults

In the case of Swaziland, education does not appear to help narrow the youth labor market disadvantage. Adult Swazi population with tertiary education is notably less likely to be unemployed than the less educated adults (Table 3). However, this applies to much lesser extent to youth. Notably higher unemployment rates for youth than for adults in this group point to challenges with school-to-work transition.[13]

[13] In contrast, in Tunisia and other North African countries, the unemployment pool contained a disproportionate share of the educated youth (Stampini and Verdier-Chouchane, 2011).

Table 3. Youth unemployment rates by education, 2007

	Total	Urban	Rural	Men	Women
Youth unemployment		(percent of the labor force)			
primary or less	52.8	46.6	57.2	52.7	52.8
secondary	55.7	49.2	63.7	50.3	59.7
tertiary	41.2	28.6	61.5	44.4	37.5
Youth-adult unemployment ratio					
primary or less	2.2	2.8	2.0	2.5	2.0
secondary	2.7	3.1	2.3	2.8	2.5
tertiary	6.6	4.5	10.2	8.5	5.1

Source: Authors calculations based on 2007 SLFS. Note: Due to small size of the sample (below 50), figures for the unemployment rates of people with tertiary education are indicative.

While the relative youth disadvantage rises with education, it also needs to be underscored that given the low access to university education in Swaziland, tertiary graduates are a minor part of the total unemployment. Most of the unemployed in all age categories are people with primary education or less, suggesting that increasing access to post-primary education is an important policy priority for addressing the overall employment challenge in the country.

2.2 Multivariate analysis of determinants of youth labor market outcomes

This Section aims at uncovering some of the key socio-economic factors (age, gender, education, mobility) that contribute to youth labor market disadvantages. It utilizes a multinomial logit model to analyze the determinants of the labor market outcomes for young adults (ages 20 – 29). The focus is on young adults since both tertiary education and self-employment are relatively common in this group, but rare among teenagers (ages 15 – 19).

Unemployment is used as the reference state in the multinomial logit regressions. The other modalities are public sector employment, formal private sector employment, informal private sector employment, inactivity, and self-employment. For each of these modalities, the estimated coefficients can be interpreted as the marginal effect of a given independent variable on the probability of being in that state rather than in unemployment. The independent variables were: age in years, gender, area (urban, rural), educational level and the interaction term between gender and educational level. Beyond age, gender, education and the residence (e.g., rural, urban), the regression model tested interactive effects between gender and education. The main results are as follows (and detailed in Tables 4a and 4b).

In 2007, for the 20 - 29 years group, age increased person's likelihood of being employed in the formal private sector and in the public sector or self-employed, rather than unemployed. Being a woman notably decreased the likelihood of employment in the public sector relative to unemployment, while the likelihood inactivity markedly rose. Urban residence increased the probability to find employment in the formal private sector relative to being unemployed. Urban residents were less likely to be in the public sector, self-employed or inactive. The lack of mobility lowered the chances of being employed rather than unemployed.

On the impact of education on labor market outcomes, all levels of education (primary, secondary and tertiary) lowered the probability of young adults to work in the private sector relative to being unemployed in 2007. Tertiary education increased the likelihood of employment in the public sector vs. unemployment. All levels of education markedly lowered likelihood of inactivity relative to unemployment for women of ages 20-29. Secondary and

tertiary education notably raised their chances of working in the public sector, while primary and secondary education notably raised their likelihood of being self-employed rather than unemployed. Tertiary education increased the chances to work in the formal private sector.

Results for 2010 were similar in many ways to those from 2007. Key differences included that young women with primary education now were more likely employed in the public sector than unemployed, but the impact of tertiary education on women's public sector employment was no longer statistically significant. Female with primary education also had higher likelihood to work in the informal private sector than being unemployed. Tertiary education notably lowered person's chances of being in the informal sector rather than unemployed.

Regarding self-employment, in 2010 chances of being in this state relative to unemployment still increased with age, but now also declined with the lack of mobility among youth. Moreover, having primary and secondary education now decreased likelihood of being self-employed rather than unemployed, confirming the view that self-employment (and entrepreneurship) are young people's second choice relative to wage employment.

2.3 Evidence on constraints to youth entrepreneurship in Swaziland

After providing detailed evidence on youth labor market disadvantage in Swaziland and analyzing contributing factors, we now turn to youth entrepreneurship as one of the possible solutions. This is because with the sluggish growth prospects, solutions to youth labor market challenge that rely only on the demand side, that is employability of youth, will not be effective. While entrepreneurship alone will not be a panacea for addressing youth employment challenge in the county, it can be an important part of the response. We now summarize the overall state of private sector development in Swaziland and main constraints encountered by young entrepreneurs during the start-up phase of their businesses.

Even prior to the global financial crisis, the role of the private sector in Swaziland was subdued, as evidenced by its limited share in key output, employment, and investment. The private sector was also underdeveloped relative to regional peers.[14] In 2011, Swaziland experienced major fiscal challenges, which the government mitigated in part by hiring freeze in the public sector and accumulating arrears to the private sector, especially to small and medium enterprises (SMEs) (UN Swaziland, 2012). The challenging labor market conditions impacted heavily the young people, especially those entering the labor force.

Given the ongoing sluggish global recovery, the weak external demand, and unclear country's prospects for attracting FDI, entrepreneurship has emerged as one of the venues that could help tackle the youth employment challenge and reach sustainable and inclusive growth path. To overcome the stagnation of the SME sector and turn it into one of the driving forces of the economy, it is important to understand the constraints that Swazi young entrepreneurs face.

Against this background, the UNDP Swaziland undertook in September and October 2012 focus group discussions (FGDs) with young entrepreneurs, to capture their opinions on constraints and opportunities. The participants were also asked to provide solutions to identified challenges. Views on how the government can create enabling entrepreneurship framework conditions, especially for youth, were sought. This was a qualitative exercise,

[14] The average share of private investment in GDP during 1996 – 2008 was 10 percent in Swaziland relative to 21 percent in Botswana. Private sector investment amounted to only 50 percent of total investment during 2003 – 2008 in Swaziland while it was at least 70 percent in all the other SACU countries (Stampini et al., 2011).

Table 4a. Determinants of the labor market state for people aged 20 – 29 years, 2007

	Panel A: youth population aged 20-29 years				
	1	*2*	*3*	*4*	*5*
	Public sector employment	Formal private sector	Informal private sector	Inactive	Self-employed
Age	0.29***(0.04)	0.15***(0.02)	0.06 (0.06)	-0.01 (0.08)	0.24***(0.04)
Gender (female)	-20.01***(0.55)	-1.18**(0.56)	-1.15 (0.95)	18.33***(2.21)	-21.46***(0.67)
Urban	-0.38*(0.22)	0.51***(0.13)	-0.30 (0.34)	-1.53***(0.68)	-0.15 (0.20)
Stay length	-0.80***(0.23)	-0.81***(0.13)	-1.21***(0.35)	-1.72***(0.63)	-1.10 (0.21)
Primary	0.02 (1.08)	-0.66*(0.36)	-1.61***(0.66)	17.43***(2.12)	-0.99 (0.56)
Secondary	0.92 (1.06)	-0.81***(0.36)	-3.37***(0.91)	17.56***(2.07)	-0.77 (0.55)
Tertiary	2.11*(1.10)	-1.08***(0.49)	-42.51***(0.63)	18.47***(2.51)	-0.27 (0.67)
Female × primary	18.95 (.)	0.70 (0.59)	1.35 (1.05)	-18.23***(2.43)	21.70***(0.73)
Female × secondary	19.45***(0.61)	0.69 (0.58)	2.22 (1.24)	-18.53***(2.32)	21.37***(0.71)
Female × tertiary	20.28***(0.71)	1.52**(0.72)	-0.38 (1.01)	-61.13***(2.51)	20.62 (.)
Intercept	-8.99***(1.52)	-2.67***(0.62)	-1.60 (1.75)	-19.84 (.)	-6.20***(1.06)
Obs	1881	1881	1881	1881	1881

Source: Authors' calculations based on the 2007 Labor Force Survey. 1/ Dependent variable is employment status (Formal public, formal private and informal private wage employments, inactivity, self-employment, unemployment). Unemployment is the base state. **Note:** * denotes significance at 10%; ** denotes significance at 5%; *** denotes significance at 1%

Table 4b. Determinants of the labor market state for people aged 20 – 29 years, 2010

	Panel B: youth population aged 20-29 years				
	1	*2*	*3*	*4*	*5*
	Public sector employment	Formal private sector	Informal private sector	Inactive	Self-employed
Age	0.27*(0.14)	0.22***(0.07)	0.14*(0.08)	-0.09(0.07)	0.37***(0.11)
Gender (female)	-21.50***(1.19)	-1.48***(0.51)	-0.56(0.45)	0.53(0.40)	0.27(0.64)
Urban	0.59(0.39)	1.17***(0.21)	0.90***(0.25)	-0.15(0.21)	0.75***(0.31)
Stay length	-1.08***(0.39)	-0.96***(0.21)	-0.60***(0.25)	-0.23(0.20)	-0.92***(0.32)
Primary	-0.33(0.95)	-0.72**(0.34)	-1.23***(0.44)	-0.49(0.40)	-1.26*(0.77)
Secondary	0.03(0.82)	-1.09***(0.33)	-2.12***(0.47)	-0.38(0.37)	-1.24*(0.66)
Tertiary	2.46**(1.25)	-0.46(0.97)	-0.21(1.02)	-0.06(1.25)	0.37(1.33)
Female × primary	20.74***(1.51)	0.80(0.60)	1.36***(0.60)	0.22(0.52)	0.86(0.93)
Female × secondary	21.55***(1.28)	1.10*(0.57)	1.02*(0.62)	-0.42(0.48)	0.19(0.83)
Female × tertiary	19.91(.)	0.95(1.20)	-32.59***(1.13)	-0.94(1.43)	-1.17(1.59)
Intercept	-8.24***(3.27)	-4.46***(1.58)	-3.31*(1.89)	1.65(1.47)	-9.52***(2.54)
Obs	978	978	978	978	978

Source: Authors' calculations based on the 2010 Labor Force Survey. 1/ Dependent variable is employment status (Formal public, formal private and informal private wage employments, inactivity, self-employment, unemployment). Unemployment is the base state. **Note:** robust standard errors are under parentheses. * denotes significance at 10%; ** denotes significance at 5%; *** denotes significance at 1%.

comprised mostly of FGDs with active and potential entrepreneurs (e.g., UNISWA students). Interviews with key stakeholders in the public sector (e.g., Ministry of Economic Planning and Development; Ministry of Commerce, Trade and Industry, and Youth Enterprise Fund, FINCORP), the private sector (e.g., NedBank, FINCORP) and NGOs (e.g., TechnoServe) were also carried out. The main findings are briefly covered in sections below.[15]

The FGDs pointed out to the lack of involvement of youth in the economic activities as a key bottleneck to entrepreneurial activities by this age group. Young people were concerned about not having a say in policies geared towards 'promoting' their economic interests, including entrepreneurship. This is in part due to traditional decision-making structures, which exclude youth. As a result, economic development programs for youth have limited effectiveness and often fail to meet young people's needs.[16] Regarding traditional approaches, youth also underscored the need for changed societal attitudes to young people, who are currently underestimated by the Swazi society and not viewed as being capable to contribute to economic development of the country. An effective outreach by key stakeholders (e.g., government, NGOs and most important by youth) could go a long way in this regard.

A weak business environment was a key factor impeding youth entrepreneurship. Besides reservations about the recently enacted tax regime (e.g., VAT), young people perceived the business environment as unfriendly because of heavy administrative procedures and the lack of transparency. Unclear property rights, especially on land, are a long-term bottleneck for young entrepreneurs, and in particular single women. During the FGDs, it became apparent that barriers in the business entrepreneurs impact youth disproportionally because of their lack of experience in overcoming them and the limited links to professional networks.

Further on the business environment, the limited access to finance, which reflects young people's limited assets for collateral and the absence of financial history, impacts Swazi youth severely. Moreover, the innovative financing methods that could be used to overcome some of these constraints such as use of psychometrics (as applied by the Standard Bank in number of other African countries) or biometric technology (as utilized by the financial sector in Malawi) have so far not been widely applied in Swaziland.

Perhaps predictably, the lack of skills in identifying business opportunities and turning them into firms was voiced as the top barrier – alongside finance – by young entrepreneurs. Young people also lack the entrepreneurial and work experience (e.g., sectoral, managerial) as well as entrepreneurial attitudes. Students of entrepreneurship from the University of Swaziland thought that the classes put too much emphasis on theories and concepts, while not equipping them with the needed 'know-how' on how to actually start and run a business.[17] Moreover, most of them also did not encounter any entrepreneurship classes at lower educational levels.

While entrepreneurship training programs can facilitate the school-to-self-employment transition, the young entrepreneurs viewed the existing ones as targeting adults and ignoring their needs. Subsequently, these programs experienced only a limited success in developing entrepreneurial attitudes and skills among youth. The FGD participants suggested that training

[15] The methodology underpinning the FGDs and their findings are in UNDP Swaziland (2012). While the results of the FGDs are not representative but indicative, they provide in-depth insights and are consistent with finding from the existing literature or databases (e.g., the 2006 World Bank Enterprise Survey for Swaziland, etc.). The FGD results will be supplemented by findings from the quantitative survey to be undertaken in November 2012.

[16] Experiences of other countries with youth entrepreneurship programs are discussed in Section 5.

[17] They suggested that similar program as the one currently adopted on a pilot basis in selected high schools, where students actually form and run SMEs, could be adopted at Universities as well.

programs should be about more than just business plan preparation. The programs should also foster linkages of youth to business service providers and entrepreneurship networks.

Training and networking was seen as critical for entering sectors beyond those in 'low entry barriers/high competition.' Providing information on potential business opportunities was also high on the priority list. Moreover, youth emphasized that in Swaziland supportive infrastructure such as incubators for youth business ideas still needs to be developed.

In sum, the findings of the FGDs clearly point to the gap in entrepreneurial skills and training programs as a critical hindrance for youth business start-ups. Section 3 below thus presents a model where due to the lack of skills, young entrepreneurs find it more challenging to pass through the stage of nascent entrepreneurship, that is to turn their ideas into businesses, than adults.[18] The model is then used to analyze policies stimulating youth entrepreneurship through skill acquisition or search/start-up subsidies. Policies aiming at narrowing entrepreneurial activity gaps between youth and adult entrepreneurs are also examined.

3. The Model

Reflecting the above findings where for young entrepreneurs skills emerged as top bottleneck, we now develop a model of entrepreneurial start-ups in an economy with limited entrepreneurial skills and costly search for business opportunities. We extend the frameworks of Snower (1996) for start-ups and Brixiova et al. (2009) and Brixiova (2013, forthcoming) for differences in initial skill levels and experience between young and adult entrepreneurs. This is a model of structural transformation, where both young and adult entrepreneurs face some shortages of skills, but these shortages are notably more pronounced among youth.

With their lack of work and entrepreneurial experience, weak links to professional networks, and limited start-up capital and access to credit, young entrepreneurs face higher cost than adults when searching for opportunities.[19] In the case of young entrepreneurs these shortages can be explained by the lack of experience while in the case of adults they reflect the need to move to new productive sector.[20] The model is applied to analyze policies aiming to stimulate start-ups by encouraging training or through search/start up subsidy. The efficiency–equity trade-offs involved in promoting youth entrepreneurship are also examined.

Consider a one-period economy with the population size normalized to one. There are two types of agents, entrepreneurs and workers, with population shares μ and $1-\mu$, respectively. Furthermore, a portion *1-p* of both entrepreneurs and workers are adults and portion *p* are young people. All agents receive $\overline{w}$ amount of consumption good, *c*, from their domestic or informal sector production. They have risk neutral preferences in consumption $E(c)$ where E denotes the expectations agents form at the beginning of the period about the income they will receive from their activities. Both young entrepreneurs and workers are 'less skilled' than their adult counterparts. Specifically, young entrepreneurs thus have more challenges to find viable business opportunities/ turn them into firms than their adult counterparts. Similarly,

[18] This is consistent with data by the Global Entrepreneurship Monitor (GEM), which indicate that globally, same share of young entrepreneurs as adults enter the 'nascent entrepreneurship' stage (searching for business opportunities), but much smaller share survives until the 'established enterprise' stage.

[19] Because of the lack of experience, young workers are likely to have fewer employable skills than adults.

[20] In the Swaziland context, due to the adjustment of the size of the public sector, the former public sector employees would need to gain new skills either to be employed or run their own firm in the private sector.

because of the lack of work experience and education that does not fully correspond to demands of the private sector, young workers have fewer employable skills than adults.[21]

At the beginning of the period, entrepreneurs search for opportunities to open firms and incur cost equal to $d(x_i) = x_i^2 / 2\gamma_i$, where $i = A,Y$ for adults and youth, respectively and γ is a search efficiency parameter that takes on two values: γ_Y for the young entrepreneurs (that is with probability *p*) and γ_A with probability *1-p,* where $\gamma_A > \gamma_Y > 0$. The difference in search efficiency reflects the differences between young and adult entrepreneurs in their initial skill levels, with youth being less able to search for opportunities and turn them into firms than adults.[22] The search results in probability x_i , $i = A,Y$ of opening a business, which then produces output *y* using n amount of labor as follows:

$$y = \frac{1}{1-\alpha} z^{\alpha} n^{1-\alpha} \tag{1}$$

where z is the business capital and α, $0 < \alpha < 1$, is the share of capital in the output. With entrepreneurs paying workers a market-determined (competitive) wage w, each entrepreneur running a firm earns profit amounting to $\pi = \frac{1}{1-\alpha} z^{\alpha} n^{1-\alpha} - wn$. The market clearing condition for entrepreneurs is $\mu = m + m_u$ where *m* denotes aggregate number entrepreneurs who run a business and m_u are entrepreneurs self-employed in the informal sector. Entrepreneurs who do not find a business opportunity to open a business become self-employed in the informal sector and earn income *b*.

At the beginning of the period, workers acquire skills for the private sector at a cost of $k(q_i) = q_i^2 / 2\theta_i$, where $i = A,Y$ while θ again takes on two values: θ_Y for youth and θ_A with probability *1-p*, with $\theta_A > \theta_Y > 0$. Workers' learning efforts result in probability q_i , $i = A,Y$ of obtaining skills and job in the private sector at wage w , which reflects their marginal product of labor. Denoting N as the total labor working in the private sector n (e.g., $N = nm$), the market clearing condition is $1 - \mu = N + N_u$, where N_u are the unemployed.[23]

3.1 Agents' problem and the equilibrium

The entrepreneur of type $i = Y, A$, where Y denotes young and A denotes adult, solves:

$$\max E(c_i)$$

$$\text{s.t. } c_i \le \overline{w} + x_i \pi + (1 - x_i) b - \frac{x_i^2}{2\gamma_i} \tag{2}$$

[21] This assumption also reflects the mismatch that exists between the skills supplied by the current educational system and those demanded in the private sector, putting premium on work experience.

[22] The model could be applied to other groups that are either less educated than the average population or less integrated into the labor market (e.g. women and people in rural areas).

[23] Disaggregating by age, $m = m_Y + m_A$ and $m_u = m_{uY} + m_{uA}$. Again, $N = N_Y + N_A$ and $N_u = N_{uY} + N_{uA}$.

Similarly, the worker of type $i = Y, A$ solves:

$$\max \; E(c_i)$$

$$\text{s.t. } c_i \leq \overline{w} + q_i w - \frac{q_i^2}{2\theta_i} \tag{3}$$

The equilibrium in this economy is defined as a wage rate and an allocation of workers and entrepreneurs such that (i) entrepreneurs and workers maximize their utilities (consumptions) and (ii) labor and output markets clear so that $m = \mu\bar{x}$ and $N = (1-\mu)\bar{q}$; where $\bar{x}$ is the average search effort of entrepreneurs and $\bar{q}$ is the average learning effort of workers.

3.2 Decentralized solution

Solving the utility maximization problems of workers and entrepreneurs and substituting from the labor market clearing condition $N = mn$ yields:

$$\frac{\bar{x}}{\bar{\gamma}} = \pi - b = \frac{\alpha}{1-\alpha} z \left[\frac{(1-\mu)\bar{q}}{\mu\bar{x}z} \right]^{1-\alpha} - b \tag{4}$$

$$\frac{\bar{q}}{\bar{\theta}} = w = \left[\frac{\mu\bar{x}z}{(1-\mu)\bar{q}} \right]^{\alpha} \tag{5}$$

where $\bar{x} = px_Y + (1-p)x_A$ is the average search effort and $\bar{\gamma} = p\gamma_Y + (1-p)\gamma_A$ is the average search cost of young and adult entrepreneurs.[24] The entrepreneurs' marginal search effort for a business opportunity equals to net profits: $x_i / \gamma_i = (\pi - b)_i$, $i = Y, A$.

According to equation (4), in equilibrium the marginal cost of searching for business opportunities for an average entrepreneur equals the expected net marginal benefit from operating a firm (premium of the profit over the income in the informal sector). Similarly, equation (5) states that the marginal cost worker's training effort equals the expected wage. (4) and (5) thus illustrate that a lower number of searching entrepreneurs reduces also the expected wage and thus discourages workers to acquire skills needed in the private sector.

As equation (4) shows, the searching effort of entrepreneurs is positively related to the search efficiency parameter, γ_i, $i=Y,A$. Entrepreneurs with higher searching costs (lower efficiency) put less effort into finding business opportunities and are more likely to work in the informal sector. Conversely, when search for opening businesses is less costly (or subsidized, as discussed below), entrepreneurs will increase their search effort (x rises with γ). The resulting higher private sector wage (Equation 5) increases incentives of workers to retrain for the 'good' (high paying and secure) jobs in the private sector, raising employment.

[24] Similarly, $\bar{q} = pq_Y + (1-p)q_A$ is the average learning effort and $\bar{\theta} = p\theta_Y + (1-p)\theta_A$ is the average learning cost of young and adult workers.

4. Policy analysis—encouraging youth entrepreneurship

4.1 Standard optimal solution

The standard approach to derive the optimal solution is to maximize utility derived from consumption (in this case from maximizing output) by solving the social planner's problem:[25]

$$\max\left(m\left[\frac{z^{\alpha}}{1-\alpha}\right]n^{1-\alpha} - \mu\frac{\bar{x}^2}{2\bar{\gamma}} - (1-\mu)\frac{\bar{q}^2}{2\bar{\theta}}\right) \tag{6}$$

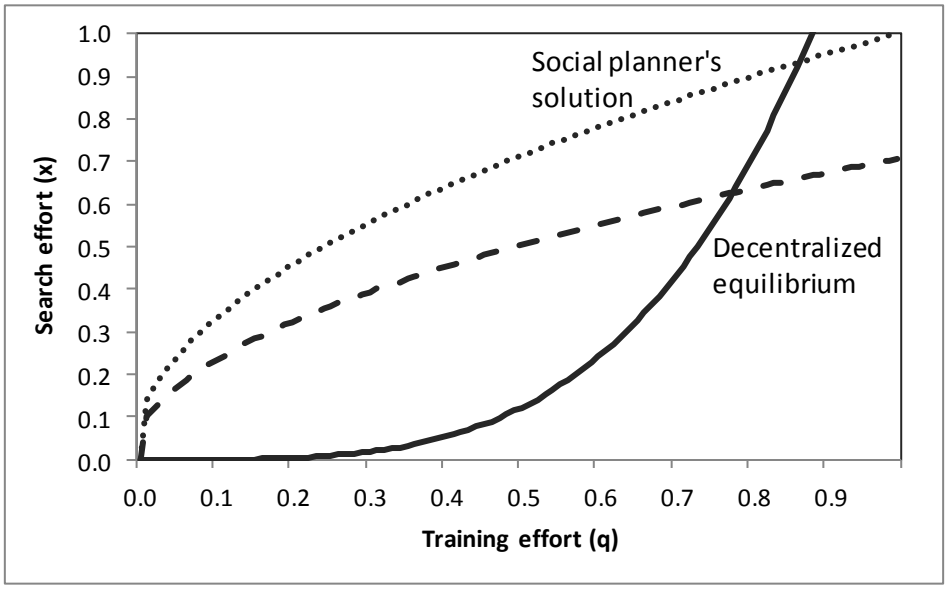
$$\text{s.t. } m = \mu\bar{x};\ n = \frac{(1-\mu)\bar{q}}{\mu\bar{x}};\ 0 < \bar{x}, \bar{q} < 1$$

In solution to (6), the condition for optimal effort by workers to acquire skills remains identical to (5), but (4) now changes to:

$$\frac{\bar{x}}{\bar{\gamma}} = \pi = \frac{\alpha}{1-\alpha} z\left[\frac{(1-\mu)\bar{q}}{\mu\bar{x}z}\right]^{1-\alpha} \tag{7}$$

From (4) and (7), the solution to the social planner's problem and in the decentralized economy would be identical if $b = 0$.[26] However, with a positive level of income from the informal sector $b > 0$ as in the benchmark decentralized case, incentives for entrepreneurs to search for business opportunities are reduced. This also lowers the equilibrium private sector employment relative to the outcome in the social planner's problem (Figure 4).

Figure 4. Decentralized and social planner's solution



[25] In the past, in practice the focus on welfare maximization through raising consumption/output has often manifested itself by policymakers' focus on high growth. This approach, which does not take into account inequality and hence inclusiveness or sustainability, can be problematic, as discussed below.

[26] In fact, if the social planner would include output in the informal sector, *b*, in the objective function, the decentralized and the optimal solutions would be identical. Not including *b* in the objective function is consistent with the goal to promote 'good' – high productive and well-paid – jobs.

4.2 Policies to stimulate entrepreneurship

Subsidies to entrepreneurial search and start-ups

We now discuss how can policies such as *subsidizing the entrepreneurial search efforts* offset the disincentives created by the informal sector income. Specifically, we assume that entrepreneurs' search is subsidized at a constant rate *s* (e.g., subsidy per entrepreneur takes form $x_i s$). The effectiveness of this measure depends not only on the amount and the type of the subsidy but also on how the subsidy is financed, that is whether a fiscal space is created from reducing other expenditures or through increased taxation. When the subsidy is *financed by cutting non-priority spending, by lump sum (real estate) or consumption taxation (VAT),* the entrepreneur of type *i* solves (8a) with solution being described by (8b) and (5):

$$\max_{0<x_i<1}\left(\overline{w}+x_i\pi+(1-x_i)b-\frac{x_i^2}{2\gamma_i}+sx_i\right);\ i=Y,A \tag{8a}$$

$$\frac{\bar{x}}{\bar{\gamma}}=(\pi-b)=\left\{\frac{\alpha}{1-\alpha}z\left[\frac{(1-\mu)\bar{q}}{\mu\bar{x}z}\right]^{1-\alpha}-(b-s)\right\} \tag{8b}$$

Equation (8b) shows that under the above forms of financing, the subsidy per worker could exactly offset the expected disincentive effect from the income in the informal sector, that is $s=b$. It is straightforward to show that financing the subsidy from profit taxation would be much less effective than for example consumption taxation, since higher profit tax rate would work in the opposite direction of the subsidy, offsetting its impact. In economies with severe shortages of productive entrepreneurship, such as Swaziland, tax base should be broadened and taxation should shift, where possible, to other sources away from firm profits.

Support to entrepreneurship training programs

The government can also support entrepreneurship by supporting training programs.[27] Participation in such programs lowers entrepreneurs' income from the informal sector by a fraction z and also reduces the rate of search cost (or raises search efficiency) by a fraction $\sigma\in(0,1)$. With this type of support, the problem of an entrepreneur of type *i* is described by (9a), while the solution is characterized by (9b) and again (5):

$$\max_{0<x_i<1}\left((\overline{w}-z)+x_i\pi+(1-x_i)b-\frac{(1-\sigma)x_i^2}{2\gamma_i}\right);\ i=Y,A \tag{9a}$$

$$\frac{(1-\sigma)\bar{x}}{\bar{\gamma}}=(\pi-b)=\left\{\frac{\alpha}{1-\alpha}z\left[\frac{(1-\mu)\bar{q}}{\mu\bar{x}z}\right]^{1-\alpha}-b\right\} \tag{9b}$$

Based on (9b), the increase in search efficiency resulting from entrepreneur's participation in retraining programs amounting to $\sigma=\bar{\gamma}b/\bar{x}$ would offset the disincentives arising from the

[27] Such programs are already ongoing in Swaziland, albeit on a small scale.

informal sector income. Again, effectiveness of this measure will depend on how the entrepreneurship training programs – if sponsored by the government -- are being financed. Again, cuts in non-priority expenditures or increases in rates of less distortionary taxes (lump-sum, consumption) would be a preferred option to profit or income taxation.

4.3 Considering equity between young and adult entrepreneurs

While the solution to the social planner's problem maximizes the aggregate output and consumption, it does not take into account inequalities between young and adult entrepreneurs that may arise. These inequalities can constitute another reason for public interventions.[28]

As already mentioned, in Swaziland and elsewhere, young people in most sectors (with the possible exception high-tech sectors) are disadvantaged relative to adults when looking for entrepreneurial opportunities. To reflect this observation in our model, young people incur higher search cost for business opportunities than adults, that is $0 < \gamma_Y < \gamma_A$. Subsequently, the solution to the decentralized problem characterized by (4) and (5) will result in a larger share – relative to the relevant labor force – of potential young entrepreneurs failing to find a suitable business opportunity than is the case for adult entrepreneurs ($m_Y < m_A$).[29]

When 'optimal' government policies target only output and thus output-maximizing solutions are adopted, the government would provide identical subsidy $s=b$ to young and adult entrepreneurs or reduce their search cost by the same fraction σ through training. Under such measures, inequalities between the two groups would not be eliminated or even narrowed.

What *subsidies to entrepreneurial search* could then government provide so as to put search effort of youth on equal footing with that of adult entrepreneurs? Conditions (4) and (5) show that when the government subsidizes search of adult entrepreneurs by the amount *b*, the equal search effort of young entrepreneurs would be achieved through subsidy to young entrepreneurs that exceeds *b*, $s_Y > b$, amounting to:

$$s_Y = b + \frac{\gamma_A - \gamma_Y}{\gamma_Y} \tag{10}$$

where $s_Y > s_A = b > 0$ since $\gamma_A > \gamma_Y$.

To ensure that the *government-sponsored entrepreneurial training programs* equalize search efforts of young and adult entrepreneurs, youth should be prioritized for the training, so that its efficiency of search converges to that of adults. The following condition needs to hold:

$$\frac{\gamma_Y}{\gamma_A} = \frac{1-\sigma_Y}{1-\sigma_A} \tag{11}$$

It follows from (11) that since $\gamma_A > \gamma_Y$, the government needs to sponsor training for young entrepreneurs more so that youth search efficiency rises more than that of adults: $\sigma_Y > \sigma_A$. The effectiveness of both measures would again depend on their financing. Where possible,

[28] Swaziland is one of the ten most unequal countries in Sub-Saharan Africa (measured by Gini coefficient).

[29] This section focuses on entrepreneurship since the lack of private sector firms is a key bottleneck to addressing youth employment challenge in Swaziland. In countries where skill shortages among workers are the main bottleneck, the analysis would focus on workers' incentives to acquire skills, as in Brixiova et al. (2009).

these government interventions should be financed through lump sum-like taxation (e.g., real estate) or with taxes on consumption (e.g., VAT) rather than with taxation that discourages productive activities (e.g., on profit or wages).

4.4 Optimal solution with social costs of (youth) unemployment

Besides the standard form of the social planner's problem described by (6), the optimal solution also depends on the objectives that the society sets for its sustainable development. When government policies target only output (or growth) and thus output-maximizing solutions are adopted, other priorities such as income distribution, low unemployment and inclusiveness can be compromised. However, high growth with widespread unemployment point to exclusive development path, which is typically not sustainable.

Protracted unemployment or idleness is taxing on young people and it can even lead to 'scarring', that is the impairment of their employment and/or income prospects through low wages; underemployment, and; low-pay-no-pay cycles, and the loss of human capital. Negative consequences of youth underutilization extend well-beyond economics. For example, social exclusion is an important negative consequence of youth unemployment and idleness. The young people miss out on critical life-skill building experiences such as applying their knowledge, developing a sense of own abilities autonomy as well as contributing meaningfully to society (Khumalo, 2011).

We now modify the objective function (6) to show a situation where the society experiences disutility from unemployment. The social planner's objective function then changes to:

$$\max\left(m\left[\frac{z^{\alpha}}{1-\alpha}\right]n^{1-\alpha} - \mu\frac{\bar{x}^2}{2\bar{\gamma}} - (1-\mu)\frac{\bar{q}^2}{2\bar{\theta}} - \frac{A}{2}(\mu-\mu x)^2 \right) \tag{12a}$$

$$\text{s.t. } m = \mu\bar{x};\ n = \frac{(1-\mu)\bar{q}}{\mu\bar{x}};\ 0 < \bar{x}, \bar{q} < 1$$

where $\frac{A}{2}m_u^2 = \frac{A}{2}(\mu-\mu x)^2$ is cost of unemployment; with m_u denoting entrepreneurs who did not find a productive business opportunity and are unemployed/in the informal sector. When the society assigns social costs to youth unemployment only, problem (12a) becomes:

$$\max\left(m\left[\frac{z^{\alpha}}{1-\alpha}\right]n^{1-\alpha} - \mu\frac{\bar{x}^2}{2\bar{\gamma}} - (1-\mu)\frac{\bar{q}^2}{2\bar{\theta}} - \frac{A}{2}(\mu p-\mu p x_Y)^2 \right) \tag{12b}$$

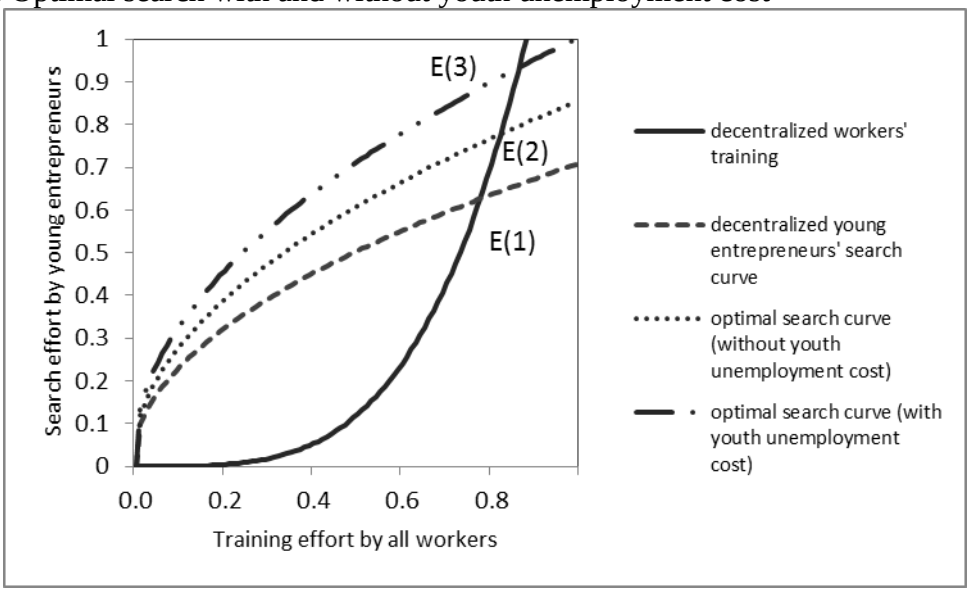
$$\text{s.t. } m_Y = p\mu x_Y;\ m_A = (1-p)\mu x_A\ n = \frac{(1-\mu)\bar{q}}{\mu\bar{x}};\ 0 < \bar{x}, \bar{q} < 1; \text{ and } m = m_Y + m_A$$

Solution to (12a) is characterized again by (5), but (7) changes to:

$$\frac{\alpha}{1-\alpha} z\left[\frac{(1-\mu)\bar{q}}{\mu\bar{x}z}\right]^{1-\alpha} = \frac{\bar{x}}{\bar{\gamma}} + A\mu^2(x-1) \tag{13}$$

Comparing (7) and (13) shows that since $x < 1$, the optimal search effort of entrepreneurs is higher when the society accounts in this objectives for the negative cost of unemployment than when this cost is not taken into account. Similarly, when the society assigns particularly high costs to youth unemployment (reflecting, for example, the 'scarring' effects), the government measures to reach optimal solution should no longer be 'neutral' (e.g., identical for both groups) but need to focus on stimulating youth entrepreneurship (Figure 5).

Figure 5. Optimal search with and without youth unemployment cost



Note: E(1) is the decentralized equilibrium, E(2) is the social planner's solution when social cost of youth unemployment are not taken into account and E(3) is the optimal solution with youth unemployment cost.

Our model results are consistent with the key messages from the focus group discussions – government interventions can help youth overcome numerous obstacles on their way to productive entrepreneurship. The results underscore the need for policy interventions to go beyond general measures such as improving the business environment. The government should also prioritize assistance to young entrepreneurs through training and start-up subsidies so as to put their chances of entrepreneurial success on equal footing with that of adults.

Recognizing the need to support youth entrepreneurship, the government has established the Youth Enterprise Fund (YEF) in 2009 to provide training and start-up capital for emerging youth entrepreneurs. The YEF distributed E 5.8 million (580,000 euros) to about 800 young entrepreneurs in 2010 and another E2 million (200,000 euros) to 200 entrepreneurs in 2011.[30] Still, while this initiative is a step in the right direction, substantial scaling up would be required for it to achieve meaningful reduction in youth unemployment. Moreover, the 2011 fiscal crisis has undermined the YEF financing with low repayment rates by recipients of start-up grants and inadequate support from the government.

In light of the need for the government support to youth entrepreneurship, but mixed results of the main existing initiative (YEF), the next section presents international lessons on successful youth entrepreneurship interventions that Swaziland can draw on.

[30] No collateral is required. Young entrepreneurs have up to 3 months to start their business upon receiving the funds; they have to repay loans within 24 months. Interest rate is about 10%, well below the commercial rates.

5. International Experience with Youth Entrepreneurship Interventions

In this Section we confront the stylized results of our model with experiences of other countries that undertook youth entrepreneurship training and development programs in order to identify what has worked and otherwise. These experiences show that youth entrepreneurship training programs and start-up subsidies often form successful government interventions, provided that necessary preconditions (e.g. time limit, targeting) are in place.

Depending on the goals of the program, the youth interventions can target vulnerable youth (e.g., in rural areas, from low income families) or high potential youth. Puerto (2007) reviewed 289 studies on youth employment interventions for vulnerable youth in countries across the world and found that interventions focused mostly on the supply side of the labor market. While systematic evaluations of programs targeting the demand side of the labor market, especially youth entrepreneurship, are limited, examples of what has worked include:

- *Project Baobab in Kenya* targeted low income youth (mostly females) in rural areas and provides them with basic business skills in entrepreneurship and those submitting promising business proposals also receive small start-up grants. 2007 evaluation showed that between 2000 and 2004 about 50 percent of youth who received the start-up grant were running business with good-to-marginal success.

- *Jua Kali Voucher Program in Kenya* was administered as a pilot program by the SME training and technology project in the late 1990s – early 2000s. Under this program, almost 40,000 vouchers were issued to entrepreneurs and employees in SME with employment below 50 workers. The scheme boosted employment and business for participating enterprises, but the subsidization was challenging to phase out.

- *Self-employment program in Bulgaria* showed increases in employment for high-potential youth, that is highly educated and with short spells of unemployment. However, cost-effectiveness of these programs needs to be further explored.

- *Young micro entrepreneurs' qualification program in Peru* aimed to counteract significant skill shortages among youth entrepreneurs. The training focused on developing business plans and the creation of profitable businesses. The program led to 8 percent increase in entrepreneurs' likelihood to operate business and 8 percent increase in their average income over the short term; a follow up evaluation is needed.

- *Youth promotion project in Bosnia and Herzegovina,* which raised attractiveness of agribusiness entrepreneurship for youth and reduced pressures for rural-urban migration. The project offered training in selected agricultural fields and fostered the establishment of small farms. It may be of particular interest to Swazi policymakers, as it encourages youth to work in agriculture and in general promotes the agribusiness.

In sum, programs aimed at strengthening entrepreneurship for disadvantaged youth in developing countries often deliver satisfactory results. This is because the marginal effects of entrepreneurship training programs in developing countries are substantial, but tend to be minor in developed countries where most of the population already has good education and training. When high potential youth is targeted, entrepreneurship training programs can

contribute to growth and innovation, since the youth-run businesses that survive this stage are more likely to experience growth than businesses run by adult entrepreneurs.[31]

6. Conclusions

In this paper, we utilized the first two Swaziland labor force surveys to document the scope, types and causes of the youth labor market disadvantages in Swaziland. We also summarized evidence from focus group discussions with the Swazi youth on constraints to business start-ups. Reflecting these new facts, we developed a model where young entrepreneurs experienced skill and start-up capital shortages and hence had lower chances of turning their ideas into businesses then adults. We utilized the model to show the impact of the government support for training and start-up subsidies, while taking into account equity considerations. Finally, we compared the results of the model with experiences on successful youth entrepreneurship interventions in other countries, to draw policy recommendations.

A key policy message from our analysis is that an enabling business environment is a necessary, but only one aspect behind dynamic youth entrepreneurship. The government support to entrepreneurial training and start-up capital is needed to prevent the otherwise sub-optimal effort of individual entrepreneurs searching for business opportunities. Moreover, to put chances of entrepreneurial success of young and adult entrepreneurs on equal footing, the government needs to prioritize interventions targeted at the young entrepreneurs. These stylized model findings are then elaborated by drawing on experiences of other countries that implemented successful youth entrepreneurship interventions. Specifically:

- The OECD (2012) study of youth entrepreneurship interventions in *Europe* emphasized support for high potential young entrepreneurs, in order to stimulate high and inclusive growth. The following lessons were emphasized: (i) importance of selectivity to ensure that youth with viable projects are supported; (ii) preference of more intense support per entrepreneur rather than spreading resources thinly; and (iii) integrated packages of support are more effective than a single instrument. However, the focus on high potential young entrepreneurs may exacerbate the disparities in income and human capital between different groups of youth.

- The importance of integrated service packages rather than isolated measures is a also key lesson from entrepreneurship programs in *Sub-Saharan Africa* targeting vulnerable youth. Another lesson is that if start-up subsidies are involved, credible exit strategy needs to be developed and implemented. Moreover, training schemes are more effective when administered by the private sector, even though the government needs to provide incentives the existence of these programs in the first place.[32]

The area of effective government policies fostering productive youth entrepreneurship in Africa is relatively understudied and provides opportunities for high-impact policy-oriented research. Further studies in this area could explore the role of African youth in technology adoption and innovation as well as different policies that the African governments could adopt towards high potential and vulnerable youth groups.

[31] However, failure rates in the nascent entrepreneurship stage are higher for young entrepreneurs than for adult ones, underscoring the need to establish good screening practices (OECD, 2012).

[32] The messages are elaborated in Johanson and Van Adams (2004 and others.

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Annex I – Figures and Tables

Figure 1. Swaziland: demographic trends

Figure 1a. Share of youth in working age population (15+), 1950 – 2030 (%)

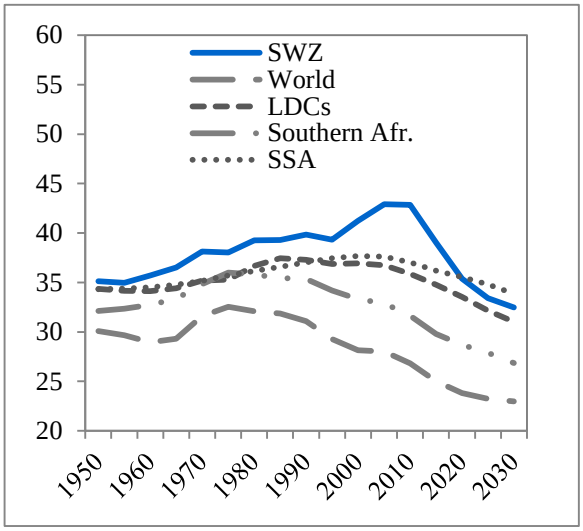
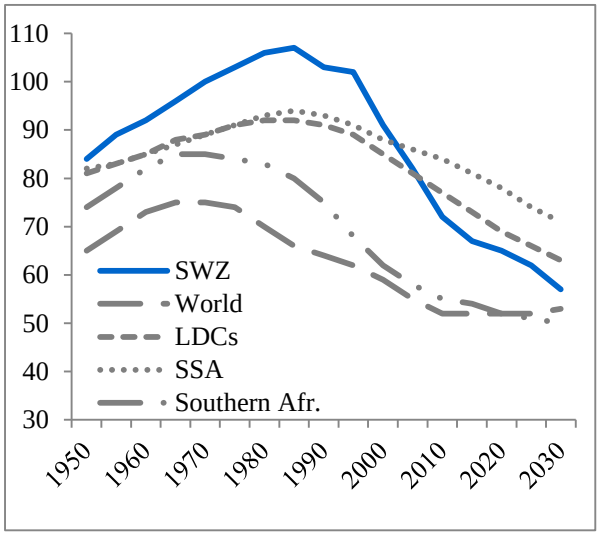


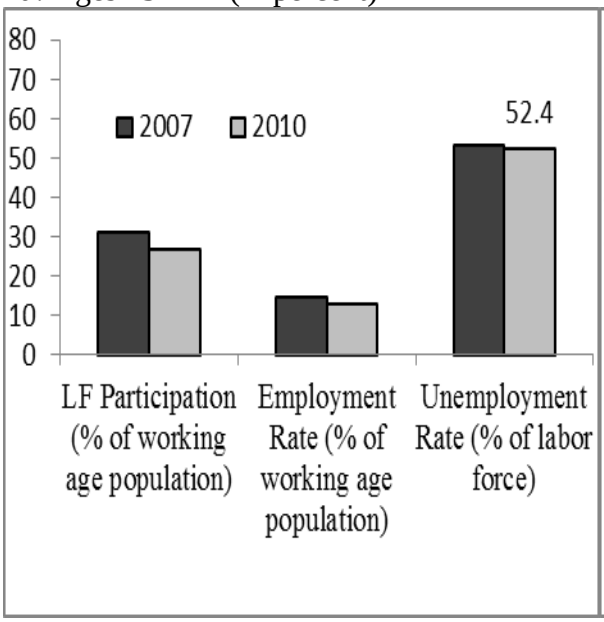
Figure 1b. Dependency ratios, 1950 - 2030
1950 – 2030 (%)



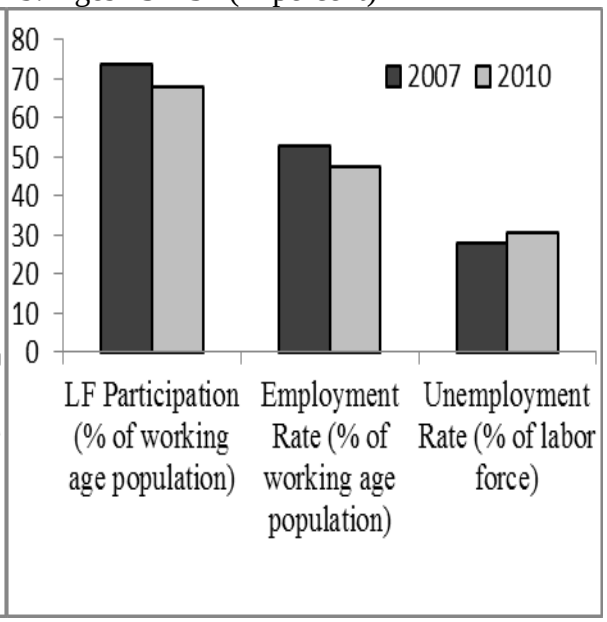
Source: Authors' calculations based on data from the UN Population Division.

Figure 2, Annex I. Swaziland: Labor Market Outcomes in 2007 and 2010, by age categories

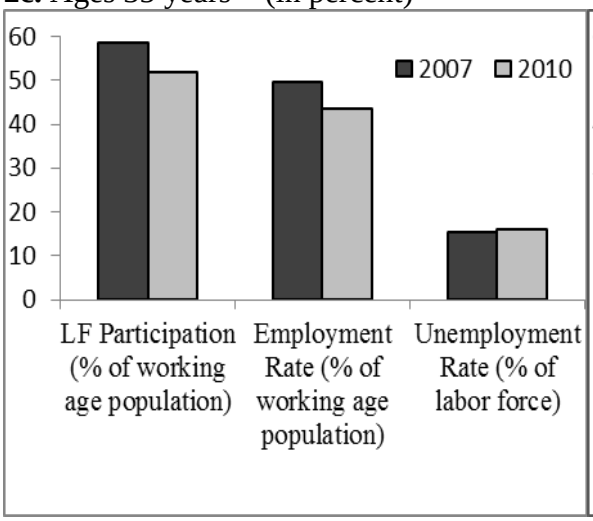
2a. Ages 15 – 24 (in percent)



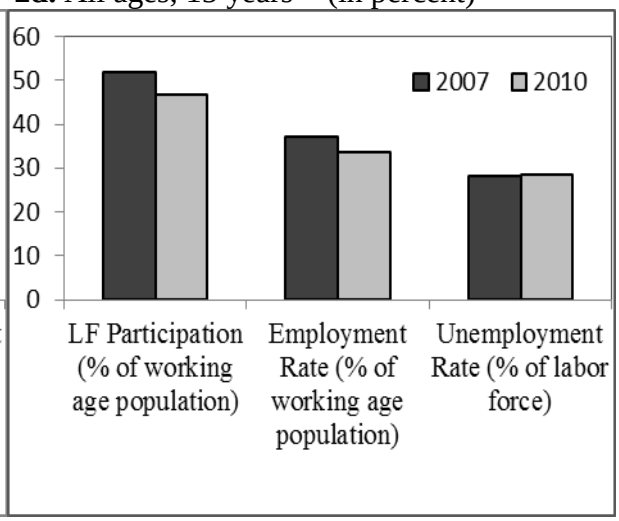
2b. Ages 25 – 34 (in percent)



2c. Ages 35 years + (in percent)

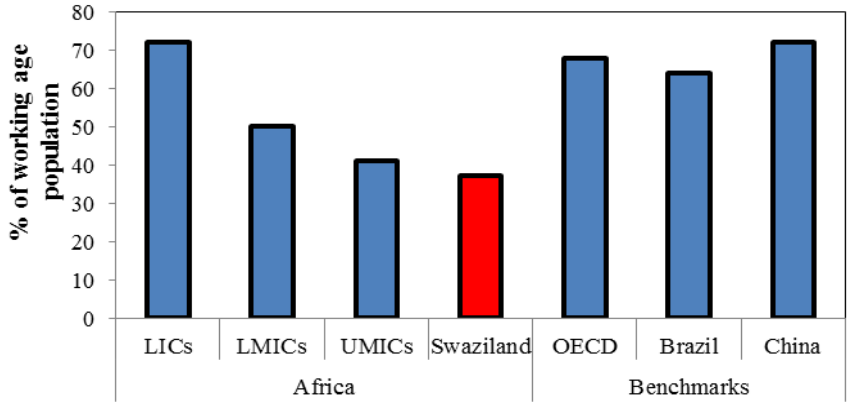


2d. All ages, 15 years + (in percent)



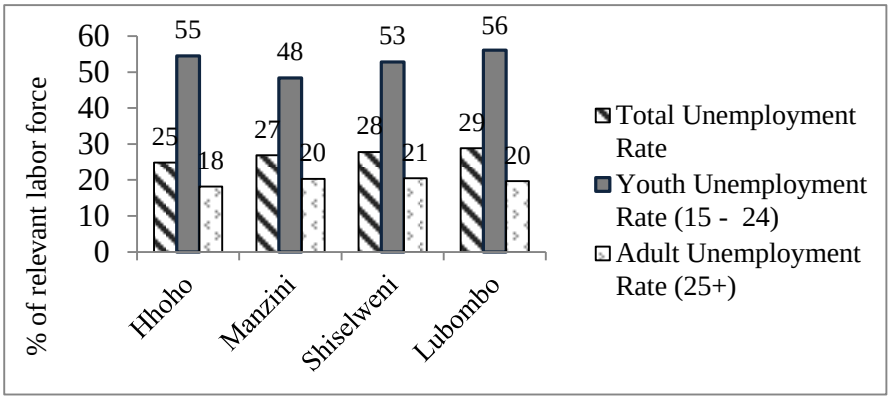
Source: Authors' calculations based on the 2007 and 2010 Swaziland Integrated Labor Force Surveys. 1/ The youth is defined as population aged 15 – 24 years, while adult population are people aged 25 years and above.

Figure 3. Employment rates in Swaziland and comparator countries/groups



Source: Adapted from AfDB et al. (2012) and based on 2007 SLFS and the ILO KILM, 7th Edition.

Figure 4, Annex I. Swaziland: Total, youth and adult unemployment, by regions (2007) 1/



Source: SLFS, 2007. 1/ Note: Total unemployment covers labor force aged 15+ years, youth unemployment corresponds to labor force of ages 15 – 24 and adult unemployment to ages 25+.

Table 1, Annex I. Unemployment and Labor Force Participation in SACU countries

Country	Year	Unemployment rate			Participation rate
		Total	Male	Female	
Botswana	2006	17.6	15.3	19.9	76.6
Lesotho	1999	27.3	21.5	33.1	65.8
Nambia	2004	21.9	19.3	25.0	64.0
Swaziland	**2010**	**28.5**	**25.7**	**31.3**	**46.8**
South Africa	2008	22.9	20.0	26.3	52.0

Source: AfDB, OECD, UNDP and UNECA, 2012 and SLFS 2010.

Table 2, Annex I. Standard youth unemployment measures by socio-economic indicators

	All	By gender		By area		By education	
		Male	Female	Urban	Rural	Primary or less	Secondary or less
Youth Unemployment Rate (15 - 24)	52.7	50.3	55.2	46.7	58.0	52.8	55.7
Adult Unemployment Rate (25+)	19.5	17.4	22.1	14.3	32.0	23.8	20.6
Ratio of Youth to Adult Unempl. Rate	2.7	2.9	2.5	3.3	1.8	2.2	2.7
Youth Unemployment Ratio (% of pop)	16.8	16.3	17.2	18.9	15.6	16.5	17.6
Youth LF Participation Rate (% of pop)	31.9	32.6	31.2	40.4	26.9	31.3	31.6
Share of Youth in Total Unemployment (%)	43.3	41.7	45.0	45.3	42.2	49.0	41.9
Share of Young Adults in Unempl. (%)	32.9	32.2	33.8	34.4	32.1	31.8	37.6

Source: Authors' calculations based on 2007 SLFS. Note: LF stands for labor force.

Table 3, Annex I. Swaziland: Sectoral distribution of employment by age groups, 2007 (% of total)

	Youth (15 – 24)	Adults (25 +)
Agriculture, forestry, fishing	10.7	8.8
Mining, manufacturing, electricity	22.0	23.2
Construction	6.5	5.3
Trade, hotels	17.2	17.5
Transport and communication	6.1	6.3
Financial intermediation	2.8	6.6
Real estate, renting, and business activities	5.2	8.4
Public sector services (education, health)	4.7	14.6
Other community services	24.8	9.5

Source: Authors' calculations based on the 2007 SLFS.