Assessing the Impact of Fortune 40 Young Farmer Incubation Program towards Rural Livelihoods

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Article

Assessing the Impact of Fortune 40 Young Farmer Incubation Program towards Rural Livelihoods

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Abstract: The importance of agricultural programs in reducing poverty, improving livelihoods, and increasing productivity cannot be overstated. Poverty and unemployment remain the most pressing developmental concerns in rural communities of Africa in general and South Africa in particular. The study was derived from the contribution of the agricultural development programs and sought to discover how the Fortune 40 initiative impacted rural livelihoods of youth in Bushbuckridge Local Municipality. Primary data using cross-sectional research design was collected from beneficiaries of the Fortune 40 program, through use of a questionnaire. An ordered probit model was used to analyse the impact of Fortune 40 initiative to rural livelihoods. Empirical results revealed that age of beneficiaries, household size, type of farming, credit access and land size were the factors with the likelihood to influence the impact of the Fortune 40 program. Therefore, it can be concluded that the land size for production should increase or expanded to enhance production of vegetables; provision of credit facilities for youths in agriculture through micro-finance and rural commercial banks is essential; also, youth, such as agricultural graduates looking for practical experience and on-farm training, should be considered in the program.

Keywords: Fortune 40; Rural development; Youth; Sustainable Livelihoods

1. Introduction

Poverty and unemployment continue to be the most pressing developmental issues in rural communities [1]. Due to historically low levels of investment in African education, South Africa has a surplus of job seekers, particularly inexperienced and low-skilled persons. The youth bear the burden of unemployment regardless of their educational level, according to [2]. Among the different factors that contribute to unemployment are population growth, lack of experience required by potential employers, lack of career advice in secondary school, and inadequate job-search methods [3]. As a result, young people are still suffering in the South African labour market; moreover, some youths have become discouraged from participating in the labour market, according to the Quarterly Labour Force Survey (QLFS) for the first quarter of 2021.

Poverty eradication is perceived as improbable unless knowledge, skills, and capacities are transferred to individuals who are excluded from participating in value-added economic activities [4]. Therefore, youths have found alternatives to express their competencies in agriculture and household enterprises due to the absence of formal paying jobs. Many African countries' economic poverty-eradication efforts rely heavily on the agricultural sector, including South Africa. Additionally, [5] highlight that for many rural Africans, agriculture is a major source of income and a key component in the continent's economic development. Moreover, [6] emphasise the role played by the agricultural sector in providing opportunities for entrepreneurship, which are ideal for the generation of employment, particularly among youth.

The comparative advantage of agriculture remains vital in the Mpumalanga Province, and for this reason, agriculture remains the potential development platform for the rural communities in the Bushbuckridge region. Correspondingly, [7] highlight that most people living in rural areas depend

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on agriculture for food and livelihood. Hence, the Food and Agriculture Organization (FAO) perceive youth-based agricultural initiatives as central to rural communities' development despite any hindrance [8].

Foundational to initiatives such as Fortune 40 young farmer incubation program (hereafter the Fortune 40 program) is the government's role in poverty alleviation read with its constitutional mandate of ensuring access to social security, promotion, and protection of the inherent human right to dignity (Constitution of the Republic of South Africa 1996, Section 27, 10), which is emphasised in Agricultural legislation and policies. Agricultural programs emerge in the government's move towards realising the social security rights of citizens and economic development, notwithstanding other authors' contentions that rural livelihoods' contribution is more of a social than an economic concept [9]. The Fortune 40 program was found a decade ago (2015) by the Mpumalanga Provincial Government to mentor and coach the youth in entrepreneurship through skill development and experiential training to enable them to be independent entrepreneurs in agriculture. However, the impact of how the program has contributed to livelihoods in not yet known. Hence, increased income, well-being, food security, and access to assets serve as the measures of success for the Fortune 40 program.

The study focused on the following two objectives: to identify and describe challenges experienced within the Fortune 40 program towards the reduction of youth unemployment and to analyse the impact of the Fortune 40 program on rural livelihood; and determine the factors that influence the impact of the Fortune 40 program on rural livelihoods.

2. Materials and Methods

2.1. Study area

The study focused on three Fortune 40 programs namely, Allandale, Thulamahashe, and Zoeknog farms located in the Bushbuckridge Local Municipality (BLM). The three farms focused on vegetable production, mechanization, and vegetable production respectively. The Bushbuckridge Local Municipality (BLM) forms part of the five Local Municipalities of Ehlanzeni District Municipality in the Mpumalanga Province of South Africa. Poverty and unemployment are the core development challenges in BLM, where most people in the municipal area of jurisdiction are unemployed, the majority being the youth between the ages of 15 to 35 years. Thus, poses a huge challenge for the municipal economic development with regards to the upliftment of the rural livelihoods [10]. Hence, the choice of the study area was based on the BLMs' intention to reinforce programs aimed at improving the local economic development substantially through agricultural activities.

2.2. Sampling procedure

The study adopted a proportional sampling method, wherein a finite population of 60 Fortune 40 beneficiaries were divided into subpopulations and thereafter a random sampling technique was applied to each subpopulation. Each Fortune 40 farm consisted of 20 beneficiaries; 20 was then divided by the total population of 60, yielding 33%, and this percentage determined the proportion of the sample from each farm as the probability of selecting a unit is proportional to its size. The calculated sample size of 43 was multiplied by 33%, which gave 14 beneficiaries in Allandale farm, 14 beneficiaries on Zoeknog farm, and 15 beneficiaries in Thulamahashe farm.

2.3. Data collection methods

The study used a cross-sectional design where primary data was gathered using a questionnaire, unstructured interviews, and observations. Moreover, consent was obtained from the participants prior data collection. The questionnaire was given to each respondent in person by the researcher. This allowed the respondents to seek clarification on questions, and it also allowed them to express a range of opinions. The questionnaire was piloted to assess its reliability and validity and to ensure the accuracy of collected data. Telephone interviews were conducted with some of the beneficiaries

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who were not at the farm at the time of data collection. Moreover, observations on the farms allowed the researcher to identify visible production indicators and to collect primary data through visual evidence.

2.4. Data analysis tools

The coded data were analysed using SPSS version 27 statistical software. Descriptive statistics was used to describe the challenges faced within the Fortune 40 program. The Sustainable Livelihood Approach theoretical framework and an Ordered Probit Model were used to analyse the impact of the Fortune 40 program on rural livelihood; and determine the factors that influence the impact of the Fortune 40 program on rural livelihoods.

2.4.1. Econometric estimation of the impact and the factors that influence the impact of the Fortune 40 program towards rural livelihoods

Sustainable Livelihoods Approach (SLA): theoretical framework

The study adopted the SLA (theoretical framework) from the study by [11]. According to the study, the SLA operationalises poverty reduction and aims to promote sustainable livelihoods through direct asset support by providing poor people with better access to assets that are fundamental to their livelihoods and supporting the more effective function and structure of the policy-making process. The approach considers the livelihood assets of people (human, natural, economic, or financial, social, and physical capital). People's livelihoods are influenced by the context (trends, seasonality, and shocks) and by institutions, policies, and processes. It supposes that policies, institutions, and processes assist people to survive and prosper in the vulnerability context (of shocks, trends, and seasonality) and improve livelihood outcomes without negatively affecting the environment. In that case, sustainable livelihoods are enhanced [11]. The SLA theoretical framework is shown in Figure 1.

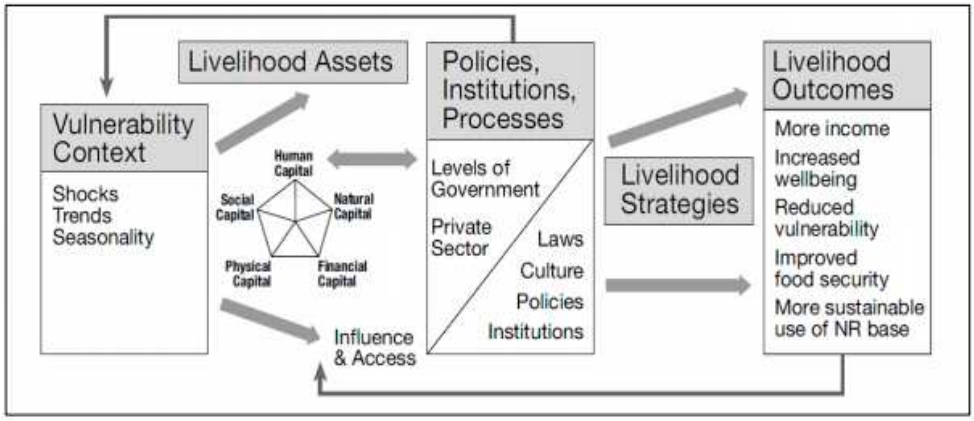

Figure 1. Sustainable Livelihoods Approach: Theoretical Framework. Source: [11]

The framework was used to analyse the impact of the Fortune 40 program on rural livelihoods in terms of improved access to livelihood assets such as human capital (skills and knowledge), social capital (networks and access to many institutions of the society), natural capital (land and irrigation water), physical capital (production inputs and equipment), and financial capital (credit, wages). Livelihood outcomes include more income, increased well-being, reduced vulnerability, improved food security, and more sustainable use of natural resources.

An Ordered Probit Model was used to estimate the relationships between an ordinal dependant variable and a set of regressor variables. An ordinal variable is a variable that is categorical and ordered [12]. Improved access to livelihood assets and improved livelihood outcomes depicts the positive impact of the Fortune 40 program towards rural livelihoods, and the lack of access to livelihood assets depicts the negative impact of the Fortune 40 program towards rural livelihoods.

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The ordered categories of the dependent variable (impact on rural livelihoods) were, no impact, less impact, moderate impact, and large impact.

The error term is assumed to be normally distributed as illustrated in equation (1):

$$y_i^* = \beta' xi + ui \quad (1)$$

where y_i^* is a latent measure impact on rural livelihoods; xi is a vector of factors that influence the impact of Fortune 40 program on rural livelihoods; β' is a vector of parameters to be estimated, and ui is an error term that is normally distributed.

Since we cannot observe y_i^*, we can only observe the categories of responses as shown in equation (2):

$$y = \begin{cases} 1 \ if -\infty < y_i^* < \mu_1 & (No\ impact) \\ 2 \ if \ \mu_1 < y_i^* < \mu_2 & (Low\ impact) \\ 3 \ if \ \mu_2 < y_i^* < \mu_3 & (Moderate\ impact) \\ 4 \ if \ \mu_3 < y_i^* < \infty & (Large\ impact) \end{cases} \quad (2)$$

The thresholds μ_i indicate the normal distribution array associated with the definite values of the explanatory variables. Parameters β indicate the influence of variation in response variables on the principal scale. The positive sign of parameter β implies a large impact of the Fortune 40 program on rural livelihoods.

Shown in equation (3) below are the estimated probabilities of the Ordered Probit Model in this study:

$$\Pr(yi = 1|x) = 1 - \Phi[\beta' xi + \mu_1]$$

$$Pr(yi = 2|x) = \Phi[\beta' xi + \mu_1] - \Phi[\beta' xi + \mu_2] \quad (3)$$

$$Pr(yi = 3|x) = \Phi[\beta' xi + \mu_2] - \Phi[\beta' xi + \mu_3]$$

$$Pr(yi = 4|x) = \Phi[\beta' xi + \mu_3]$$

Where Φ is the cumulative density function (CDF) of a standard normal random variable. The explanatory variables against which the dependent variable was regressed are presented in Table 1.

Table 1. Description of variables specified in the Ordered Probit Model.

Variables	Description	Units of measure
Impact on rural livelihoods (Y) (OPM Model)	**1=No impact, 2=Low impact, 3=Moderate impact, 4= Large impact**	**Ordinal**
Gender of the beneficiary	Male=0, Female=1	Dummy
Age of the beneficiary	Actual years	Years
Education level	0= no formal education, 1= primary education, 2=secondary education, 3= tertiary education	Categorical
Years participating in the programme	Actual years	Years
Land size	Actual size	Hectares
Access to inputs	1=yes, 0=no	Dummy
Market Access	1=yes, 0= otherwise	Dummy
Credit access	1=yes, 0= otherwise	Dummy
Assets acquired by beneficiaries	0=human capital, 1=natural capital, 2= social capital, 3=financial capital, 4=physical capital	Categorical
On-farm Training	1=yes, 0= otherwise	Dummy
Workshops attended	1= Attended, 0= not attended	Dummy
Household size	Number of people in the household	The actual number of household members

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Farm Income	Monthly income	South African Rands (ZAR)
Beneficiaries Income with the exclusion of farm income.	Monthly income	South African Rands (ZAR)
Government funds	1=yes, 0= otherwise	Dummy

3. Results and Discussion

This section is divided into two sections; the challenges experienced in the Fortune 40 program, and empirical results.

3.1. Challenges experienced in the Fortune 40 program

The study identified a few impediments to the progress of the Fortune 40 program. Beneficiaries of the Thulamahashe farm were not present at the time of data collection, because they had not received their monthly stipend for the previous three months (April, May, and June 2022); hence, they decided to discontinue their participation. Beneficiaries of the Allandale farm expressed dissatisfaction with the program's day-to-day operations because of their incubator's daily absence, which forced the beneficiaries to be their own leaders in the program. Beneficiaries also expressed dissatisfaction with the lack of resources or basic farming tools, such as hoes and shovels, to name a few. This forced them to borrow the lacking tools from the local community to ensure that production on the farm continued. The beneficiaries also stated that the program took too long to fulfil their requests with regards to resources and production inputs. Furthermore, to begin the third production cycle (the current production when data was collected), they had to hire a tractor for land preparation using their own money.

Theft was one of the program's challenges; the fencing is dilapidated at Allandale farm; hence, some produce is lost to cattle and, and sometimes, local people steal the produce on the farm. Water is available from the farm's tap, but only for four consecutive days per week, and there are no tanks or other water storage facilities. As a result, when there is no water available, irrigation ceases. Storage is available on the farm, but it is inoperable. Also, the main irrigation pipe at Zoeknog farm frequently bursts, power cables have been stolen, there is a high rate of absenteeism among learners, and the withdrawal of incubators from the program delayed production on the farm.

Gedefaw [13] findings in the paper to determine factors attributing to the failure of agricultural programs includes management related factors like low knowledge and experience leading to insufficient decision-making in the early stage of design, the inability to communicate clearly and weak training which lead to failure to identify the project regulations and responsibilities. Furthermore, factors such as communication, commitment, technical background, and troubleshooting are project team members related project failure factors. As a result, poor quality of the project leads to beneficiaries' dissatisfaction, thus leading to the exit of youths in agricultural programs.

3.2. The impact of Fortune 40 program and the factors that influence the impact of Fortune 40 program towards rural livelihoods

3.2.1. Changes in socio-economic wellbeing

Several questions were posed to determine how beneficiaries felt about their social and economic well-being. These questions provided insights into how the Fortune 40 program impacted the livelihoods of its participants. Questions were weighted on three grounds; satisfied, neutral, and not satisfied as presented in Figure 2.

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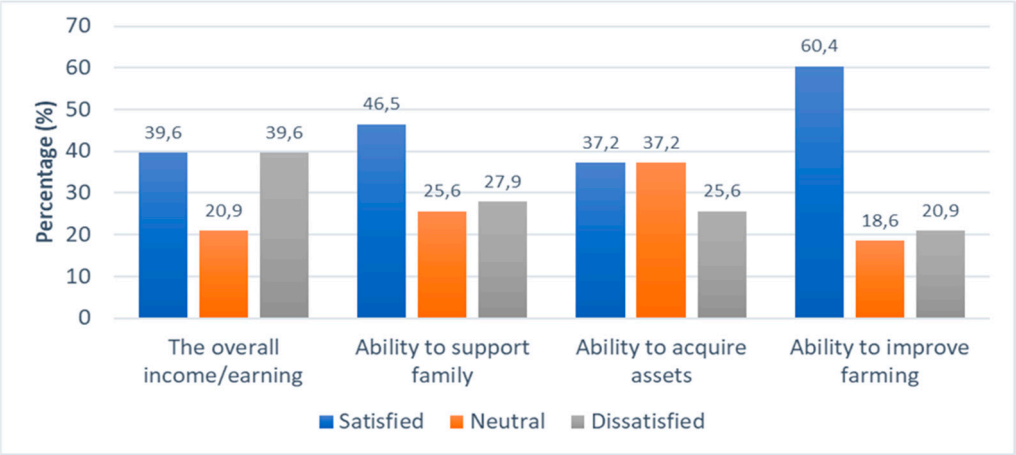

Figure 2. Changes in socio-economic wellbeing.

When asked about the overall income/earnings from the program, 39.6% were satisfied and 39.6% were not satisfied, whereas 20.9% were neutral. Some beneficiaries mentioned that the stipend was not enough, because it could not cover most of their necessities, while others said they could occasionally buy food and clothing with the same amount. One of the beneficiaries mentioned that he was able to get his driving license, while others said they were able to start their own gardens for both home consumption and sales. These results show a disparity in the satisfaction of the beneficiaries regarding the acquired financial capital from the program.

When asked about the ability to support their families, about 46.5% of the beneficiaries were satisfied, some of them even mentioned that they were able to make provisions for food for their families. Approximately, 27.9% were not satisfied, with some mentioning that they stayed far from the program; hence, they used most of the money for transport and were unable to make family contributions while 25.6% of the beneficiaries were neutral when asked about the ability to support their families. These results show a slight improvement in the livelihood outcome of the beneficiaries.

Beneficiaries must obtain land to continue receiving support from Fortune 40 program after intervention. When asked about their ability to acquire assets, about 37.2% of beneficiaries expressed satisfaction. The researcher had the opportunity to visit the farms of two post-beneficiaries, who were grateful for the support they received from the program after being successful in acquiring land. The beneficiaries had a 2.5-hectare plot of land, and the program constructed a fence, a water tank with a capacity of 100,000 litters, and drip irrigations on their farm. About 37.2% of the beneficiaries were neutral when asked about their ability to acquire assets, while 25.6% were not satisfied. Some of the beneficiaries stated that the program took long to provide resources during and post intervention.

When asked about their ability to improve farming, the majority (60.4%) of the program's beneficiaries were satisfied, 18.6% were neutral and 20.9% were not satisfied. The majority of the program's beneficiaries stated that they were then better equipped to manage a farm and knew how to cultivate some of the highly demanded crops in the local market, such as tomatoes, because of the skills gained through the program. Hence, the changes in the socio-economic wellbeing of the beneficiaries showed that the Fortune 40 program has helped to improve the livelihood of its beneficiaries to some extent. Also, of the sample population, about 54% of the participants were women while males accounted for 46%. The findings explain that women are perhaps taking initiatives into improving their social well-being by participating in the agricultural development programs. Thus, women empowerment is necessary since the women are now showing keenness to participate in agricultural activities because, in the past men have been dominating in agricultural development activities.

Figure 3 illustrates how beneficiaries assessed the impact of the Fortune 40 program on their livelihoods. Approximately 23% of the beneficiaries mentioned that the program had made a large impact on improving their livelihood. Most of the beneficiaries (61%) said the program had moderate impact on rural livelihoods, while 16% indicated that the program had a low impact. None (0%) of

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the beneficiaries considered the program to have no impact. These findings may suggest that the Fortune 40 initiative is a viable basis for the sustainability of livelihoods of the beneficiaries.

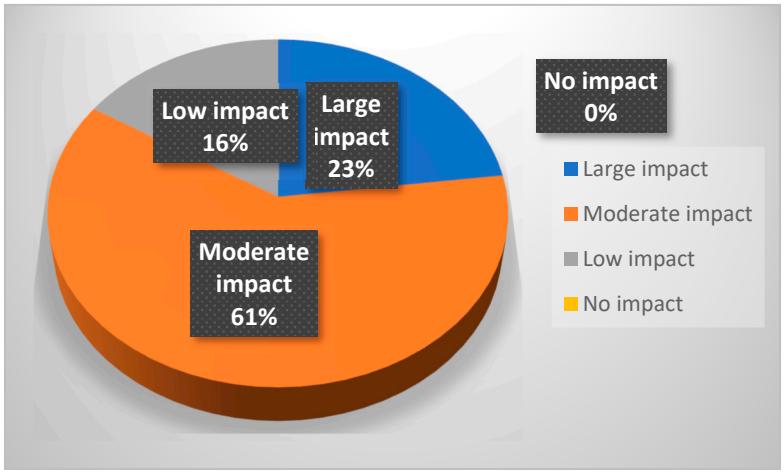

Figure 3. Impact of Fortune40 programme

The Ordered Probit Regression Model was used to determine the factors that influenced the impact of the Fortune 40 program on rural livelihoods and the results are shown in Table 2. From the ten independent variables that were logged in during the analysis, only six variables were found to be significant. The (-2) Log-likelihood of the estimated model is 80.748, which implies that the Ordered Probit Model can be relied upon to predict the impact of the Fortune 40 program. Nagelkerke R square of .737 was obtained, which indicated that more of the variation from the independent variables was explained by the model with an overall prediction percentage of 97.3%, as indicated in Table 2. The direction of influence for each significant variable is presented below.

Table 2. Ordered Probit Regression results of the factors influencing the impact of Fortune40 programme.

Variables	B Coefficient	Standard Error	T-statistics	Sig. (P-V)
Intercept	-4.069	10.329	0.155	0.694
Age	13.067	6.8730	3.615	0.057***
Gender	0.430	1.415	0.092	0.761
Level of Education	-0.167	1.389	0.014	0.904
Household size	29.627	4.283	47.861	0.000*
Credit Access	-5.587	2.699	4.285	0.038**
Government funds	-1.171	1.978	0.351	0.554
Type of Farming	17.880	7.969	5.034	0.025**
Monthly income	0.002	0.001	5.034	0.025**
Workshops attended	-0.623	1.947	0.102	0.749
Land size	16.758	2.997	31.264	0.000*
Model Summary				
(-2) Log-likelihood		80.748		
Accuracy of prediction: Overall (%)		97.3%		
Pseudo R-square				
Cox & Snell R Square		.624		
Nagelkerke R Square		.737		

Note, * Significant at 1% and ** Significant at 5% and *** Significant at 10%. Source: Statistical Packaging for the Social Sciences version 28 (SPSS).

Age

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Age had a likelihood to positively influence the impact of the Fortune 40 program on rural livelihoods and it was discovered to be significant at 10% level (p=0.057). The participants in the Fortune 40 program had to be the youth, especially those who could not further their education beyond matric. The results suggest that the inclusion of this age group in the program is likely to have an impact on the program's outcomes. Youth involvement in agriculture is strongly recognised for the reform of the sector as they are considered able to keep pace with the changing global economy. Moreover, age was a positive and significant variable in [14] findings, implying that older youths are more likely to participate in agricultural programs than younger ones. This conclusion supports the findings of [15], who contend that as individuals get older, they become more conscious of the importance of agriculture as a sustainable source of livelihood.

Household size

Household size was likely to positively influence the impact of the Fortune 40 program towards rural livelihoods, and it was found to be highly significant at 1% level (p=0.000). The findings imply that families with a high number of members are likely to have an impact on how the Fortune 40 program affects rural livelihoods. By pooling their resources and abilities, a household could probably improve its individuals' standard of living. The results are consistent with [16] research on the impact of the Masibuyele Emasimini agricultural program, which found that household size was significant. Smallholder farming is dependent on family because most farmers find it expensive to hire people and their profits are insufficient to cater for labour. As a result, large size households could be advantageous when it comes to access to labour.

Credit access

Credit access had the likelihood to negatively influence the impact of the Fortune 40 program on rural livelihoods and it was found to be significant at 5% level (p=0.038). The findings may imply that farmers who have access to financial resources like credit are more likely to have variety of livelihood options. In accordance with [17], as cited by [18], financial capital such as credit has the likelihood to provide smallholder farmers with an opportunity to adopt technology and allocate resources more effectively. Thus, brings essentiality for the promotion of production, which in turn is essential for the reduction of poverty and food insecurity. It was noteworthy from the Fortune 40 program that many of the beneficiaries lacked access to credit, which consequently limited their alternatives of making a living. The results are consistent with those of [19], who found that financial capital, such as credit, had a negative influence on farmers' decisions about how to make a living from traditional agriculture.

Type of farming

The type of farming was likely to positively influence the impact of the Fortune 40 program on rural livelihoods; it was found to be significant at 5% level (p=0.025). Most probably, the findings suggest that the program's impact may vary depending on the type of farming practiced at the Fortune 40 program. Deogharia [20] believes that diversifying agricultural operations is a key strategy for increasing income since it minimises risk and maximises profits by investing in a variety of crops. Therefore, the production of different crops may have an impact on how the Fortune 40 program affects the rural livelihoods. A similar outcome was reported by [21], who conducted a study titled: "Farm types and their economic characterization in complex agro ecosystems for informed extension intervention" and found that farm types are significant and crucial for precise technological intervention and well-informed policy support.

Land size

The variable land size was likely to positively influence the impact of the Fortune 40 program on rural livelihood, and the variable was found to be highly significant at 1% level (p=0.000). According to the findings, the likelihood of Fortune 40 farmers producing in large quantities and increasing farm revenue may depend on access to adequate land size. As a result, there is a probability that the choice of land size may have an impact on livelihoods of the beneficiaries of the Fortune 40 program. This outcome is in line with what [22] found in their study, which revealed that land availability is positively correlated with farm technical efficiency.

4. Conclusions

It was evident that the Fortune 40 program was initiated in response to socio-economic challenges such as poverty, inequality, and unemployment in the Mpumalanga Province. The study findings revealed that the Fortune 40 program addressed the issue of gender inequality, by having a strikingly balanced gender of program beneficiaries, to integrate women farmers in farming decision processes and asset acquisition. Correspondingly, according to Statistics South Africa, equal ownership and access to resources and opportunities, as well as gender equality in decision-making positions and equal participation of both sexes in the labour force, are crucial components of empowerment.

Fortune 40 program has moderately improved access to livelihood assets such as human capital (skills gained from the on-farm training and workshop); physical capital (farm machinery); and natural capital (arable land and water), which to some extent, has led to the improvement of beneficiaries' livelihood outcomes, such as the financial capital and wellbeing. Consequently, the program has a positive impact on rural livelihoods. Hence, the findings may suggest that the Fortune 40 program is a viable basis for the sustainability of livelihoods of the beneficiaries. However, from the research observations the future existence of the Fortune 40 program is questionable given that most beneficiaries are leaving the program, while many of the remaining beneficiaries are worried about how the program is currently being administered and how poorly resources are being allocated.

Empirical results revealed that age of beneficiaries, household size, type of farming, credit access and land size were the factors with the likelihood to influence the impact the Fortune 40 program. Hence, the study recommends that land size for production should increase to enhance production; provision of credit facilities for youths in agriculture through micro-finance and rural commercial banks is essential; also, youth, such as agricultural graduates looking for practical experience and on-farm training, should be considered.

Notwithstanding the variables with the likelihood to influence the impact of the program, the study identified a need for viable systems for monitoring and evaluation of the Fortune 40 program as the progress of the program lies more with the incubators. Hence, the involvement of extension officers would be of a great importance. Furthermore, improvement in resource allocation is crucial within the Fortune 40 program, as poor allocation of resources has led to the failure of many other similar agricultural projects.

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References

1. Gassner, A.; Harris, D.; MauschK.; Terheggen, A.; Lopes, C.; Finlayson, R.F.; Dobie, P. Poverty eradication and food security through agriculture in Africa: Rethinking objectives and entry points. *Outlook on Agriculture* **2019,** 48(4), 309–315.
2. Stats South Africa. *Youth still find it difficult to secure jobs in South Africa.* Available from: http://www.statssa.gov.za/?p=14415 (Assessed: 16 February 2022), **2021.**
3. Cloete, A. Youth unemployment in South Africa-a theological reflection through the lens of human dignity. *S. Afr. J. of Mis. St*. **2015**, 43(3), 513-525.
4. Lewin, K.M. *Transitions and Equity.* Improving Access, Equity and Transitions in Education: Creating a Research Agenda (No. 1), **2007**.
5. Dercon, S.; Gollin, D. Agriculture in African development: theories and strategies. *Ann. Rev. of Res. Eco.* **2014,** 6, 471-492.
6. International Youth Foundation. *Promoting agricultural entrepreneurship among rural youth*. Available from: https://iyfglobal.org/sites/default/files/library/GPYE_RuralEntrepreneurship.pdf (Accessed: 05 August 2022), **2014**.
7. Baiphethi, M.N.; Jacobs, P. The contribution of subsistence farming to food security in South Africa. *Agrek.* **2009**, 48(4), 459-482.
8. Food and Agriculture Organization of the United Nations. *Youth and agriculture: key challenges and concrete solutions.* Available from: https://www.fao.org/3/i394e7E.pdf. (Accessed: 10 March 2022), **2014**.
9. Hancel, R.B. Livelihood impacts of the Farm Work Program on households in Bois Content. Thesis., University of the West Indies Campus, **2019**.
10. Bushbuckridge Local Municipality. *Final integrated development plan*. Available from: http://mfma.treasury.gov.za/Documents/01.%20Intergrated%Development%20Plans/2018-2019/02.%20Local%20municipalities/MP325%20Bushbuckridge/FINAL%IDP%20BLM%202018-19.pdf (Assessed: 05 June 2023), **2018**.
11. Ahmed, F.; Siwar, C.; Idris, N.A.H. The sustainable livelihood approach: reduce poverty and vulnerability. *J. of App. Sci. Res.* **2011,** 7(6), 810-813.
12. Johnston, C.; McDonald, J.; Quist, K. A generalized ordered probit model. *Com. in Stats. -Theo. and Meths*. **2019,** 49(7), 1712-1729.
13. Gedefaw, A.; Sisay, D. Determinants of recommended agronomic practices adoption among wheat producing smallholder farmers in Sekela District of West Gojjam Zone, Ethiopia. J. *of Dev. and Agric. Eco.* **2020**, 12(1), 17-24.
14. Adeyanju, D.; Mburu, J.; Mignouna, D. Youth agricultural entrepreneurship: assessing the impact of agricultural training programs on performance. *Sustainability* **2021**, 13(4), 1697-2021.
15. Nnadi, F.; Akwiwu, C. Determinants of youths' participation in rural agriculture in Imo State, Nigeria. *J. of App. Sci.* **2008**, 8, 328–333.
16. Shabanbgu, R.R. Effect of Masibuyele Emasimini agricultural program on food security at new forest irrigation scheme in Bushbuckridge municipality of Ehlanzeni district in Mpumalanga Province. Master's Diss., University of Limpopo, Polokwane, **2015**.
17. Zulfiqar, F.; Hussain, A. Forecasting wheat production gaps to assess the state of future food security in Pakistan. *J. of F. and Nutri. Dis.* **2014**, 3(3), 1-6.
18. Hussain, A.; Thapa, G.B. Fungibility of smallholder agricultural credit: empirical evidence from Pakistan. *The Europ. J. of Dev. Res.* **2016**, 28(5), 826-846.
19. Yin, K.; Xiao, Y. Impact of farmers livelihood capital differences on their livelihood strategies in three Gorged Reservoir Area. *J. of Coast. Res.* **2020,** 103, 258-262.
20. Deogharia, P.C. Diversification of agriculture: a review. *J. of Eco. and Soc. Dev.* **2018,** 15(1), 46-59.
21. Goswami, R.; Chatterjee, S.; Prasad, B. Farm types and their characterization in complex agro-ecosystems for informed extension intervention: study from coastal West Bengal, India. *Agric. and F. Eco*. **2014,** 2(5), 1-25.
22. Berre, D.; Corbeels, M.; Rusinamhodzi, L.; Mutenje, M. Thinking beyond agronomic yield gap: smallholder farm efficiency under contrasted livelihood strategies in Malawi. *Fiel. Cr. Res.* **2017**, 214, 113-122.