

The Socio-Economic Contribution of Rural Small-Scale Industries in Ghana

S. E. Edusah, PhD

Bureau of Integrated Rural Development (BIRD),
Kwame Nkrumah University of Science and Technology (KNUST), UPO, Kumasi, Ghana
Tel: +233 0244 22 44 58 Email: s.edusah@gmail.com

Abstract

The study looks back into the years to assess the contribution of Small-Scale Industries sector in times of economic difficulties of a country. Ghana went through very difficult phase of her politico-socio-economic development during the period 1970 to 1996. During which time the economy experienced contraction, distortion and acute shortages of what became known as “essential commodities” on the market. RSSIs did not only become prominent in the lives of the people by filling the void created by the collapsed medium and large-scale industries but also created jobs, fostered entrepreneurial development, offered employment, and generated incomes among others for large number of people particularly those in the rural areas. The data used in this study form part of data collected from population of firms in the SSI sector through the use of a structured questionnaire survey administered in settlements in the Mfantseman District in the Central Region of Ghana. A total of 215 proprietors were interviewed. The study showed that the SSI sector covers a wide range of activities and forms a very important part of the rural off-farm activities. Internal skill development accounts for higher percentage of the total entrepreneur development in the survey and that the formal sector does not play any major role in skill development of SSI sector. The survey results reported in the study, suggests that the RSSI sector has a strong potential for employment creation plays a pivotal role in the politico-socio-economic lives of the people and can serve as a means for poverty alleviation in the rural areas.

Key words: Rural Small-Scale Industries, Entrepreneurial development; firm formation; employment creation; income generation; forward and backward linkages

1. Introduction

This paper presents a socio-economic analysis of the RSSI sector in Ghana and focuses on the contribution of the sector to entrepreneurial development; firm formation; employment creation; income generation and forward and backward linkages with other sectors of the rural areas in times of economic crises. .Edusah (2013) argues that rural industries do not merely connote or represent geographical location but also present an idea of rural ownership. Thus the industries are enterprises for the people, carried out mainly in rural conditions and rely heavily on local resources, both natural and human. About two-thirds of Ghana’s population live in the rural areas where agriculture is the main occupation. However, the sector offers only limited employment opportunities for the increasing number of unemployed persons as a result of myriad of production challenges the major one being over-reliance on the weather for farming activities. In Ghana farmers rarely use irrigation for agriculture rather they depend on rainfall for production. Therefore, the RSSIs may be an alternative and promising source of employment for the rural poor. Elkan (1995:) argues that RSSIs have been seen not only as providing a remedy for unemployment but also as spreading the benefits of economic development more widely in much the same way as small-scale agriculture distributes increased incomes more widely than plantations. He continues that another argument cited in favour of the RSSI sector is that it permits a wider geographic spread of industry. This reduces the cost of urban growth by reducing the incentive to migrate to towns. The RSSI sector has been recognised by many developing countries to be a promising source of employment for the rural poor. At the same time the sector facilitates the development of entrepreneurs and stimulates income generation and distribution activities through forward and backward linkages.

For instance in Ghana, when several thousands of the workforce of the public corporations and the civil service were retrenched at the beginning of the Economic Recovery Programme (ERP) around 1983 it was the SSI sector that was seen by the government as the source of new employment opportunities. It is estimated that in the Civil Service there was a reduction in manpower from over 145,000 in 1986 to around 95,000 by 1992. The Ministry of Agriculture lost 4,000 staff in 1992 and the Ghana Education Service lost 10,000 staff (see Nsiah-Gyabaah and Edusah 1996). Sowa et al (1992) and Steel and Webster (1991) have provided evidence to show that a significant influence on employment creation in small-scale industries has arisen as a result of the contraction of the formal sector in the Ghanaian economy since the 1970s. The combined effects of Structural Adjustment Programme (SAP) and the ERP have provided the successive governments of the 4th Republic with the incentive to view the SSI sector as a way of both creating new employment and reducing unemployment. It

must be noted, however, that to ensure that employment creation ultimately leads to reductions in unemployment, the characteristics of the employment that is created need to correspond broadly to those of the unemployed who are to fill the opportunities.

2. Methodology

The data used in this study form part of data collected from population of firms in the RSSI sector through the use of a structured questionnaire survey administered in rural settlements in the Mfantseman District in the Central Region of Ghana. A total of 215 proprietors were interviewed. The survey was carried out over a period of 3 months between March and May 2012. Questions were asked about the characteristics of the proprietor, such as the age, gender, marital status and educational level. At the firm level questions were asked about the age of the firm, production, technology, size of the firm and source of raw materials ; forward and backward linkages among others.

3. Discussion of Survey Result

3.1 Characteristics of Firms

The study shows that the SSI sector covers a wide range of activities and forms a very important part of the rural off-farm activities (see Edusah and Tribe 1996). These activities include (1) crafts, (pottery, woodwork, straw work, leather work, gold and black smithing), (2) artisan (carpentry, tailoring/dress making etc.) and (3) processing (oil extraction, powder making, fish processing, cassava processing, vegetable/fruit processing, brewing), The magnitude and the overall distribution of firms under CI, AI and PI sub-sector categorisation is summarised in Table 1, where they are arranged by gender and industry sub-sector.

The analysis shows that the PI sub-sector predominates the RSSI sector activities and accounted for more than half of all firms. The AI and the CI sub-sectors followed in that order of importance. The dominance of PI was not unexpected given the economic activities of the study area which is based strongly on agricultural production – farming and fishing. The relatively strong position of AI sub-sector was also expected because the sub-sector serves as a safe haven for school dropouts in the rural areas. The contribution of the RSSIs is discussed in the sections that follow.

3.2 RSSIs Contribution to Entrepreneurship and Firm Formation

In discussing the contribution of the RSSI sector to firm formation, the following points are clarified to help in the interpretation and understanding of the results.

1973 is taken as the base year because it marked the beginning of contraction of the Ghanaian economy.

- The firms included in the survey are those created before 1996 with 1-9 workers still having 1-9 workers in 1996, and firms created with more than 9 workers before 1996 but having 1-9 workers in 1996.
- The survey did not include firms created with 1-9 workers before 1996 but which were closed before 1996, and firms created with 1-9 workers before 1996 but which had 10 or more workers in 1996.
- Employment growth in firms with 1-9 workers over the period to 1996 could arise from firm formation or from growth of existing firms.

32.1 Entrepreneurship Development in the RSSI Sector

The classical entrepreneur of the conventional theory of the firm is a risk-taker and innovator who organises the various factors of production (Cortes et al 1987) Schumpeter (1969) describes the concept of new combinations of production as including: (1) The introduction of new goods... (2) The introduction of new methods of production... (3) The opening of a new market... (4) The conquest of a source of supply of raw materials or half manufactured goods... and (5) The carrying out of a new organisation of any industry... According to Livingstone (1990) entrepreneurship is the ability to perceive profitable business opportunities and the capacity to co-ordinate and control the work which is being done. He argues that it is doubtful whether an entrepreneur's ability to perceive profitable business opportunities can be taught or in any way developed through training. In his opinion what is important is to secure the right macro-economic framework or 'enabling environment' under which small enterprises can thrive. The limited availability of domestic entrepreneurial talent adversely affects the development of modern small manufacturing and processing enterprises. Rani (1996) has stated that while large industries can be set up with expatriate workers and with foreign capital, small industries need to have a domestic entrepreneurial base and Elkan (1995) argues that the SSI sector provides wider opportunities for exercising entrepreneurship and acquiring business experience.

Table 1: Scale of RSSI Sector by Sub-sector Activities and by Gender of Proprietors

Industry Sub-sector	Firm Level Activity	Total	Gender of Proprietors	
			Male	Female
			%	%
Crafts	1. Pottery	7	28.6	71.4
	2. Woodcarving	7	100	0
	3. Rattan	9	88.9	11.1
	4. Leather-work	5	100	0
	5. Goldsmithing	1	100	0
	6. Blacksmithing	2	100	0
	7. Net-making	6	100	0
	Sub Total	37	83.8	16.2
Artisan	1. Carpentry	15	100	0
	2. Dressmaking	18	0	100
	3. Tailoring	11	100	0
	4. Smelting and Foundry	3	100	0
	5. Block-making	5	80.0	20.0
	6. Canoe Building	9	100	0
	7. Shoe Making	2	100	0
	Sub Total	63	69.8	31.2
Processing	1. Cassava Processing	6	16.7	83.3
	2. Edible Oil Extraction	9	22.2	77.8
	3. Soap making	7	28.6	71.4
	4. Grain milling	16	100	0
	5. Baking/Confectionery	7	0	100
	6. Food Processing	11	0	100
	7. Charcoal Production	12	100	0
	8. Brewing	4	0	100
	9. Distilling of Alcoholic Beverages	19	95.0	5.0
	10. Beekeeping and Honey Processing	6	100	0
	11. Fish Processing	9	0	100
	12. Talc Extraction and Processing	8	100	0
	Total	215	65.6	34.4

Source: Field Survey (2012)

Edusah and Tribe (1992) argue that the main source of skill formation for operating and managing RSSI comes from within the RSSI sector itself. Skills are acquired informally from relatives or as an apprentice to another craftsman or an artisan (Table 2). The survey results show that 43 per cent of the proprietors had their skills passed on to them by their families. Another 36 per cent of the proprietors acquired their skills through training as apprentices within the RSSI sector. Thus internal skill development accounts for about 80 per cent of the total entrepreneur development in the survey.

The analysis of the results shows that only 15 per cent of the proprietors indicated that they acquired their skills through formal training. Skills developed in the formal sector therefore do not seem to have played any major role in RSSI sector skill development. Only 5.6 per cent of the proprietors indicated that their prior experience had been in the formal sector. This finding confirms the result of earlier research such as by Liedholm and Chuta (1976) and Page (1979).

Table 2: Entrepreneurship Development

Sources of Skill Acquisition	No	Total %
Skills Development from within RSSI		
▪ Skills acquired from the family	93	43.2
▪ Skills acquired through apprenticeship	78	36.3
Formal Schooling	12	14.9
Formal Sector	32	5.6
Total	215	100.0

Source: Field Survey (2012)

3.2.2 Firm Formation

In considering employment generation, it cannot be too strongly emphasised that only surviving firms which were operating in 1996 could be surveyed and which at that time had 9 workers or less. The firms included in the survey have lives ranging from less than 1 year up to 23 years. For this analysis the firms were put in five age which coincided with formation in the periods: (1) pre-1973, (2) 1974-1979, (3) 1980-1985, (4) 1986-1990 and (5) 1991-1996. The age distribution of the surveyed firms was examined and the results are presented in Table 3

Table 3: Firm Formation by Industry Sub-Sector

Period	The Industry Sub-Sector			Total
	Craft	Artisan	Processing	
1973 and earlier	7 (18.9)	10 (15.2)	9 (8.0)	26 (12.1)
1974-79	3 (8.1)	7 (10.6)	13 (11.6)	23 (10.7)
1980-85	5 (13.5)	10 (15.2)	19 (17.0)	34 (15.8)
1986-90	14 (37.8)	23 (34.8)	42 (37.5)	79 (36.7)
1991-96	8 (21.6)	16 (24.2)	29 (25.9)	53 (24.7)
Total	37 (17.2)	66 (30.7)	112 (52.1)	215 (100.0)

Source: Field Survey (2012)

Figures in parentheses are column percentages

About 23 per cent of the surveyed firms were formed in the period from before 1973 up to 1979, about 19 per cent in the period 1980-85, about 37 per cent in the period 1986 to 1990 and about 25 per cent in the period 1991 to 1996. It is remarkable that 20 per cent of the firms surveyed were 20 years old or more. The proportion of firms which were formed in the period 1980 to 1985 is surprisingly low at 19 per cent of the total, particularly when compared with the 37 percent which were formed in the period 1986-90. One possible explanation may relate to the reasoning of Sowa et al (1992). They explain that the decline in the large-scale industrial sector over the period from the mid-1970s and to the mid-1980s was a reflection of the sector's dependence on imported spare parts and intermediate inputs which was affected by the severe foreign exchange constraint. The decline in the LSI sector created conditions favourable to the development of the SSI sector, including RSSIs. Firms that were formed in the period 1980-85 in response to the economic crisis may be more likely to have closed before 1996 due to the improvement in the performance of large and medium scale plants, and improved availability of imported commodities (e.g. second hand clothing).

The period between 1986 and 1990 coincides with the ERP during which period the government made positive attempts at economic reforms through fiscal, monetary and trade policies. The government further intensified the campaign for the promotion of RSSIs in Ghana (see for example ISSER, 1996 and Sowa Baah-Nuakoh, Tutu and Osei 1992). The NBSSI was established in 1985 within the Ministry of Industries, Science and Technology (MIST) and was charged with the responsibility of promoting the SSI sector. Also Programme of Action to Mitigate the Social Cost of Adjustment. (PAMSCAD) was instituted aimed at poverty alleviation. These measures might have had some positive impact on the development of the RSSI sector and could have contributed to substantial increases in the formation of firms. However, it was shown in the survey that most of

the firms surveyed in this research have never had any contact with any of the promotion institutions. So the government's policy is not likely to be an explanation for the high proportion of the surveyed firms which were formed in the periods after 1986. However, the general economic recovery experienced by Ghana in this period might have had the type of positive impact which could account for the strength of firm formation from 1986 to 1990.

The proportion of the surveyed firms formed during the period 1991 to 1996 was significantly lower than in the immediate previous period. One possible explanation is that as a result of the trade liberalisation the RSSI sector was exposed to increased competition from importation and large-scale producers (Dawson, 1988). For instance number small-scale soap producers were pushed out of the market as a result of importation of soap and other detergents. Also the garment industry suffered because of the importation of cheap used clothes.

3.2.3 Gender and Firm Formation

The relationship between gender and firm formation is now examined and the summary of the results is presented in Table 4. The results show that the age distribution of firms differs significantly according to the gender of the proprietors. About one third of all the firms included in the survey had a female proprietor. Only 12 per cent of the female-owned firms were formed before 1980, as compared with 28 per cent of the male-owned firms while as 36 per cent of the female-owned firms were formed in the period 1991-96 compared with 18 per cent of the male-owned firms. The implication of this is that women seem to have become more prominent in the RSSI sector in recent years.

Table 4: Firm Formation by Gender of Proprietor

Gender and Firm Formation			
Period	Male Owned Firms	Female Owned Firms	Total
	No of Firms	No of Firms	
1973	20 (14.2)	6 (8.1)	26 (12.1)
1974-79	20 (14.2)	3 (4.1)	23 (10.7)
1980-85	22 (15.6)	12 (16.2)	34 (15.8)
1986-90	53 (37.6)	26 (35.1)	79 (36.7)
1991-96	26 (18.4)	27 (36.5)	53 (24.7)
Total	141 (65.6)	74 (34.4)	215 (100.0)

Source: Field Survey (2012)

Figures in parentheses are Column Percentages

3.3 RSSIs Contribution to Employment in the Rural Areas

Employment or employment creation by the RSSI sector in the rural economies is aptly illustrated by Birch's 'component of employment generation' (Storey 1997) and that informed the analysis of the contribution of RSSIs contribution to employment in the study area.

Table 5 presents a summary of firm size, period of formation and the current level of employment. The 215 firms surveyed had a total of 807 employees at a mean of 3.75 workers per firm in 1996. Firms formed in 1973 or before accounted for approximately 12 to 13 per cent of the 1996 total employment. Firms formed in the period 1974 to 1979 accounted for only about 9 per cent of the 1996 numbers employed. The 1996 employment level for firms formed between 1980 and 1985 was about 17 per cent or the total, those formed in the period 1986-90 accounted for 38 to 39 per cent and those formed between 1991 and 1996 account for 23 per cent of the total employment generated by the RSSI sector. The fact that the proportion of firms in each age group is about the same as the proportion of total employment accounted for by each age group suggests that age is not a factor affecting firm size. period 1991-96 compared with 18 per cent of the male-owned firms. The implication of this is that women seem to have become more prominent in the RSSI sector in recent years.

Table 4: Firm Formation by Gender of Proprietor

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	Male Owned Firm	Female Owned Firm	
	No of Firms	No of Firms	
1973	20 (14.2)	6 (8.1)	26 (12.1)
1974-79	20 (14.2)	3 (4.1)	23 (10.7)
1980-85	22 (15.6)	12 (16.2)	34 (15.8)
1986-90	53 (37.6)	26 (35.1)	79 (36.7)
1991-96	26 (18.4)	27 (36.5)	53 (24.7)
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The information in Table 5 shows that the very small firms (those with 1, 2 and 3 workers in 1996) made up more than half of the firms of the RSSI sector but generated less than 30 per cent of 1996 employment. The firms with 4, 5 and 6 workers constituted less than one third of all firms and generated about 30 per cent of employment. The striking feature is that firms with 7 to 9 workers were numerically very small (approximately 16 per cent of the total) but contributed approximately 36 per cent of 1996 employment.

The survey took a 40 per cent sample of the settlements in Mfantseman District. Therefore if the survey results are grossed up by a factor of 2.5 the outcome will be an approximation of the District total. On this basis the 807 workers found in the survey results would lead to the supposition that just over 2,000 workers were employed in RSSI activities in 1996. This amounts to nearly half of the number of all workers over 14 years of age employed in manufacturing in the district at the time of the 1984 population census Baah-Nuakoh (1996) argues that while the formal sector is dwindling, the informal sector is growing and accounts for over 60 per cent of total employment in Ghana. The JASPA (1989) survey estimated that employment growth in the informal sector is about 5.6 per cent per annum. The estimate, together with the survey results reported in the paper, suggest that the RSSI sector has a strong potential for employment creation and can serve as a means for poverty alleviation in the rural areas.

3.5 Intensity of Participation of Labour Force in RSSI Activities

The level of labour force participation in RSSI activities depends not only on the number of months worked per year, but also on the number of hours per day or days per week during the working season. This may be described as "the intensity of participation of the labour force" in RSSI activities and is presented in Table 6 In all, the rate of work participation or effective employment among the RSSI activities was found to be very high. The table shows that a high proportion of proprietors have long daily working operation of between 9 hours and 12 hours. The daily operations of firms varied greatly among the proprietors and ranged from 1 to 7 days,

however the largest proportion of proprietors (40 per cent) operated for 6 days a week. Also a high proportion of proprietors (67 per cent) operated for between 10 and 12 months a year. The results show that the average of number of hours worked per day, days per week and months per year of operation are 9 hours, 5 days and 10 months respectively. This suggests that most RSSI proprietors devoted the greater part of their time to the operations of their firms so that RSSIs are not “part time” enterprises.

Table 5: The Total Employment of the RSSI Sector

Period of Firm Establishment and Current Level of Employment												
Firm Size	1973 or before		1974-79		1980-85		1986-90		1991-96		Total No of Firms %	Total Employment %
	No of Firms	Employment	No of Firms	Employment	No of Firms	Employment	No of Firms	Employment	No of Firms	Employment		
1	6	6	6	6	5	5	16	16	12	12	45 (20.9)	45 (5.6)
2	3	6	5	10	7	14	11	22	15	30	41 (19.1)	82 (10.2)
3	3	9	3	9	5	15	17	51	7	21	35 (16.3)	78 (9.7)
4	1	4	4	16	6	24	7	28	4	16	22 (10.2)	88 (10.9)
5	7	35	3	15	4	20	9	45	5	25	28 (13.0)	140 (17.3)
6	4	24	0	0	1	6	5	30	0	0	10 (4.7)	60 (7.4)
7	0	0	0	0	0	0	2	14	3	21	5 (2.3)	35 (4.3)
8	1	8	0	0	2	16	3	24	3	24	9 (4.2)	72 (8.9)
9	1	9	2	18	4	36	9	81	4	36	20 (9.3)	180 (22.4)
Total	26 (12.1)	101 (12.5)	23 (10.7)	74 (9.2)	34 (15.8)	136 (16.9)	79 (36.7)	311 (38.5)	53 (24.7)	185 (22.9)	215 (100)	807 (100)

Source: Field Survey (2012)

Note: The number of workers employed is inclusive of the proprietor and the partners.

Figures in the Table represent surviving firms and the number of employment created

The actual number of firms formed over the periods was not known since the firms that died were not covered.

Table .6: Intensity of Participation of Labour Force in RSSI Activities

Hours of Operation of Proprietors			Days of Operation of Proprietors			Months of Operation		
Hours/Day	No of Proprietors	%	Days /Week	No of Proprietors	%	Months/Year	No of Proprietors	%
1-4	9	4.2	1	3	1.4	0-3	1	0.5
5-8	90	41.8	2	10	4.7	4-6	25	11.6
9-12	105	48.8	3	17	7.9	7-9	44	20.5
13-16	10	4.7	4	15	7.0	10-12	145	67.4
17-20	1	0.5	5	47	21.9			
			6	85	39.5			
			7	38	17.6			
Total	215	100		215	100.0		215	100
Mean	9.1			5.3			10.2	
Standard Deviation	2.7			1.4			2.4	

Source: Field Survey (2012)

Table 7 shows that there is no important difference in hours of operation by gender. A very small number of both male and female proprietors operated between 1 to 4 hours a day and the majority of both genders worked between 9 and 12 hours daily indicating low involvement in the sector on a part-time basis by both male and female proprietors.

Table 7: Hours (Week) of Operation by Gender of Proprietor

Hour of Production	Gender		Total
	Male	Female	
1-4	6 (4.3)	3 (4.1)	9 (4.2)
5-8	60 (42.6)	30 (40.5)	90 (41.8)
9-12	70 (49.6)	35 (47.3)	105 (48.8)
13-16	5 (3.5)	5 (6.8)	10 (4.7)
17-20	0	1 (1.4)	1 (0.5)
Total	141 (65.6)	74 (34.4)	215 (100.0)

Source: Field Survey (2012)

Figures in brackets are column percentages

3.6 RSSIs' Contribution to Income Generation in the Rural Areas

RSSI activities play an important role in income formation, generation and distribution in the rural areas. According to Bagachwa and Stewart (1992), rural non-agricultural activities account for between 20 and 30 percent of African rural incomes. Consequently, incomes from non-farm sources can play a substantial role in reducing income inequality and poverty in rural areas. Wages, profits and other earnings of employees and operations in small enterprises introduce cash into the local economy, and these support agricultural and commercial sectors not only through purchases for inputs but also through general demand for consumption. This means small enterprises directly and indirectly support economic activities in the areas in which they operate and their surrounding communities. In all, the findings summarised in Table 8 show that approximately 81 per cent of firms generated a gross income of approximately GH¢1,000 per annum. What is particularly striking about the result is the capability of at least 19 per cent of the proprietors to generate annual income of up to GH¢6,000. The figures are significant because they compare favourably with incomes in most formal sector employment (the official daily minimum wage in Ghana is GH¢5.24). Baah-Nuakoh (1996) has noted that the traditional view of the sector as a source of survival strategy is changing. This is because incomes earned in the sector are now comparable with incomes earned by the middle income group in the formal sector. It would thus be wrong to characterise every RSSI activity as a comparatively low earning venture.

Table 8: Gross Incomes of Proprietors by Gender

Incomes	Income by Gender of Proprietor		Total
	Male	Female	
1,000<	105 (74.5)	68 (91.8)	173 (80.5)
1,000-1,999	21 (14.9)	4 (5.4)	25 (11.6)
2,000-2,999	9 (6.4)	1 (1.4)	10 (4.7)
3,000-3,999	1 (0.7)	1 (1.4)	2 (0.9)
4,000-4,999	3 (2.1)	0	3 (1.4)
5,000-6000>	2 1.4	0	2 (0.9)
Total	141 (65.6)	74 (34.4)	215 (100.0)

Source: Field Survey (2012)

Note: \$1=GH¢2.3

Figures in brackets are column percentages

Turning to gender and income generation, the table shows that a high percentage of both male (75 per cent) and female (92 per cent) proprietors earned gross incomes of less than GH¢1000. No female proprietor was found in the higher bracket of income generating activities of between GH¢4,000 and GH¢6,000 as compared with 3.5 per cent of male proprietors. Thus, female proprietors are less likely to be found in comparatively high income generating activities.

3.7 Linkages of RSSIs with Other Sectors of the Rural Economy

One reason for emphasising the significance of the RSSI sector is its potential linkages with other sectors of the rural economy. For example, the RSSI sector can have positive effects on agricultural productivity by providing inputs and market for farm products. Through mutual linkages between agriculture and other sectors of the rural economy, a virtuous circle of development may emerge, with greater agricultural output leading to more non-agriculture activity and greater non-agricultural output in turn acting as a stimulus to agriculture and to the rural economy generally (Bagachwa and Stewart, 1991).

It has been argued that RSSIs cater for the local rural population so that even without direct input-output linkages they are demand-linked. However the level of the linkages depends directly on the level of agricultural incomes (see for instance Livingstone, 1990). The linkages between the RSSI sector and agriculture take three main forms (i) forward linkages, (ii) backward linkages and (iii) consumption linkages. Figure 1 presents the backward, forward and consumption linkages of the RSSI sector, the agricultural sector and natural resources.

RSSIs backward linkages involve the processing and distribution of farm products. From the study, it was clear that most of the RSSIs; particularly the PI sub-sector firms were agro-oriented or agro-based firms and had direct input-output linkages with agriculture. On the other hand most of the firms in the PI sub-sector were directly involved in the processing and packaging of raw materials such as grain milling and processing, sugar cane crushing, brewing and beverage-making, fish processing, oil-extraction, soap making, cassava processing, fruit processing and bakery. These are the basic essential items consumed by the local people.

The RSSI sector enjoys a near monopoly of agro-processing in the study area because there are no large- or medium-scale agro-processing industries in the district. The only medium-scale agro-processing factory set up at Anomabo in the district in the 1970s to produce lime juice was shut down after few years of operation partly due to stiff competition from a well-established factory in the near-by Asebu-Abura-Kwamankese district. The strength of forward linkages is strongly influenced by the choice of processing technologies. The survey indicates that proprietors employ traditional, modern or combination of traditional and modern technologies with varying factor intensities and technical efficiencies depending on the activities involved. For instance firms involved in cassava processing rely mostly on a simple traditional grating technology. On the other hand, those involved in local alcoholic brewing industry employed semi-modern technology of sugar-cane crushers. Most of

the equipment and tools used are produced and maintained by local artisans. As agriculture becomes more intensified, and RSSI activities develop, a greater local market would be created for locally processed foods. Forward linkages are likely to become more important in the district as a result. The next major step forward is for the sector to improve to embark on refined production for the large urban centres and for export. For instance, the district's strength in pineapple and fish production offers potential for improved RSSI sector processing of intermediate and finished products for medium-scale producers and for local consumption.

RSSIs forward linkages relate to the use of RSSI products by other sectors of the rural economy. The AI sub-sector firms are mostly found in tailoring, dressmaking, joinery, furniture-making and metal works. The sub-sector produces and repairs most of the principal implements and equipment that are needed by farmers and fishermen in the study area such as hoes, cutlasses, axes, carts and many other household equipment. The CI sub-sector firms are found in basketry, tie and dye, straw making, carving, pottery and goldsmithing. Apart from producing items of aesthetic value the sector produces other items such as a wide range of traditional pots that are used widely among rural households for cooking and storage. The AI and CI sub-sectors therefore exhibit the same kind of linkages, including demand linkages. Backward linkages are likely to grow stronger as farming, fishing and tourism activities increase in the district but this would however depend on how the RSSI sector responds to changes in the economy and the general consumption patterns of the people in the district.

Consumption linkages result from the expenditure of farm incomes on locally produced consumer goods and services. In all, the consumption linkage activities are most significant and account for a large proportion of RSSI activities and employment. This is because a large proportion of the output of RSSI sector such as edible oils, 'gari', tie and dye, stools, mortar and many more are consumed locally. It is anticipated that as agricultural incomes rise in the district, expenditure on the products of RSSI will also rise.

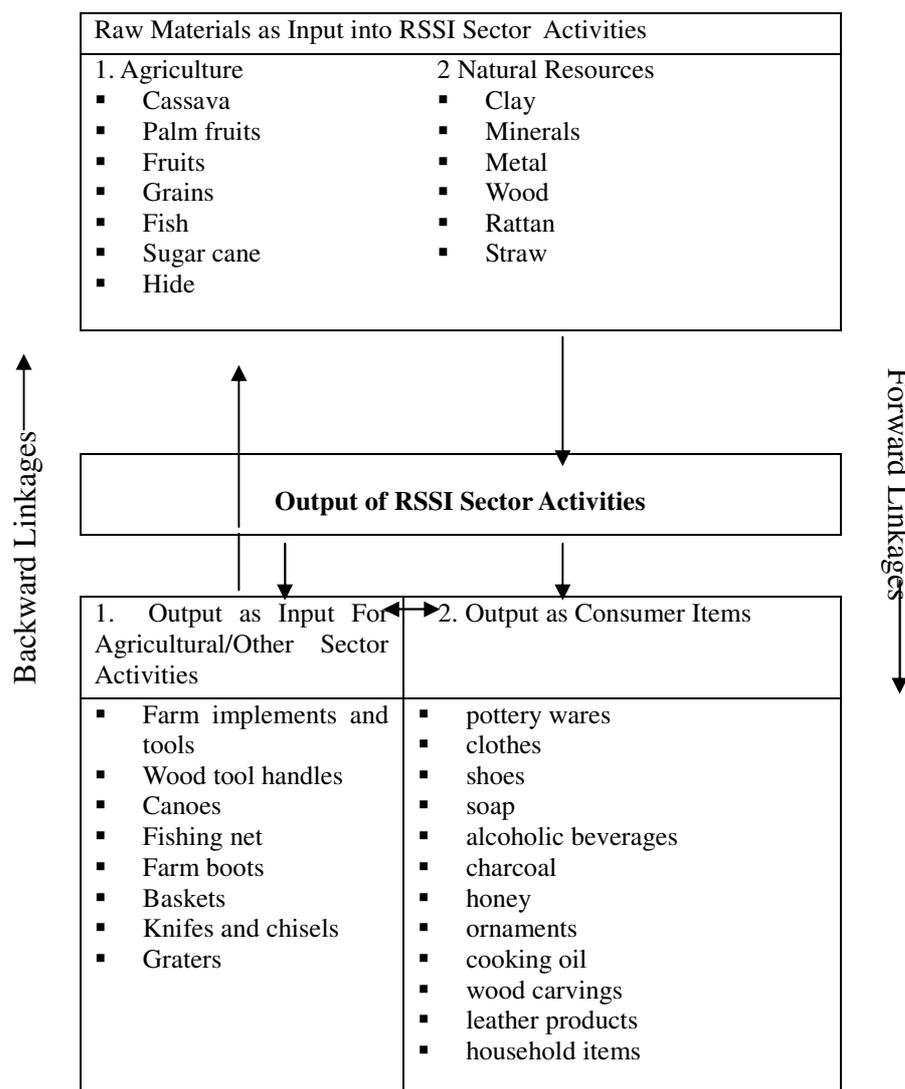


Figure 1: Backward and Forward Linkages of Agricultural and Natural Resources with RSSI in Rural Economy

4. Conclusion

The central point of the paper has been to emphasize the socio-economic contribution of the RSSI sector in Ghana through entrepreneurial development, firm formation, growth, employment and income generation and linkages. This is aimed at highlighting the capacity of the RSSI sector as an outlet for poverty reduction in the rural areas. The broad pattern which emerges is that the sector makes contributions in several areas including employment and income generation. The analysis of the results shows that the main sources of skill formation for operating and managing RSSI come from inside the RSSI sector itself. It was recognised that skills are acquired informally from relatives or through apprenticeship to master craftsman or an artisan. Skills developed in the formal sector contributed insignificantly to entrepreneurial development of the RSSI sector.

The net employment change, which can be either positive or negative, is the outcome of the employment that is created in the rural economy by the RSSI sector (gross new employment) and the employment that is lost (gross employment losses). Firm formation and closure appeared to have varied considerably between 1973 and 1996 and followed the fortunes of the Ghanaian economy. The PI, the largest of the RSSI sector, created the largest amount of employment. When grossed up, the sector possibly employed over 2,000 workers in 1996, which amounted to approximately half of all workers over 14 years of age employed in the manufacturing in the Mfantseman District.

In all, a considerable number of firms were formed at the peak of the ERP although these were reversed in later years as a result of competition brought about by trade liberalisation. Although there was no information on closed firms either as a result of a change of location, change of ownership, or disappearance the sector showed a substantial capacity for employment generation. A striking feature of the pattern of firm formation was that women seem to have become more prominent in the RSSI activities in recent years.

The rate of work participation or effective employment among the RSSI activities was very high. This meant that the RSSI sector provided permanent employment to almost all of the proprietors. The results reveal that important variations existed in the gross annual output by the three RSSI sub-sectors. The linkage between the RSSI sector and other sectors of the rural economy takes the form of (i) forward linkages, (ii) backward linkages and (iii) consumption linkages. Forward linkages are very important because considerable processing of agricultural raw materials for local consumption occurs. Potentially, a virtuous cycle is activated where improved agricultural productivity raises RSSI sector output, while the backward linkages in turn lead to a further rise in farm and other sector productivity. Further, the consumption linkages mean that a higher agricultural output is important for the development of the RSSI sector. Taking together the contribution of the RSSI sector to employment and income generation, entrepreneurship, gender participation and the linkages with the other sectors of the rural economy, there is no doubt that the sector contributes significantly to socio-economic development of rural areas.

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