



Productive Uses of Energy and Gender in the Street Food Sector in Rwanda, Senegal and South Africa

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Cover photo: Sven Torfinn/ENERGIA. Rwanda, Kigali, May 2018. Angelique, works in central vegetable market of Kigali, where she operates a locally manufactured cutting machine, powered by an electric motor. Her enterprise is doing very well since it saves women a lot of time. Before vegetables like spinach, garlic or cassava leaves had to be cut and pounded manually. A third of her turnover goes back to pay for electricity. Together with other women she has invested in this food processing machine.

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Contents

1.	INTRODUCTION	20
1.1.	Report outline	22
2.	BACKGROUND	23
2.1.	Scoping Phase	23
2.2.	Second Phase	24
2.3.	Lessons from methodology	27
3.	USE OF ENERGY	28
3.1.	Types of energy sources used and food products, by country, level of formality and gender	28
3.2.	Location, gender and energy use	32
3.3.	Multiple energy use	34
3.4.	Reasons for the most used energy sources, by country, level of formality and gender	34
3.5.	Reasons behind the use of electricity and gas, by country, level of formality and gender	40
3.6.	Electricity for Lighting	42
3.7.	Type of appliances used and desired, by gender	44
3.8.	Conclusion/Summary	47
4.	HOME ENERGY	49
4.1.	Background - Free Basic Electricity policy	49
4.2.	Data analysis	51
4.3.	Country and energy use at home	53
4.4.	Discussion and conclusion	55
5.	WHY WOMEN DOMINATE THIS SECTOR	56
5.1.	Literature	56
5.2.	Survey Data findings	57
5.3.	Gender observations by respondents:	63
5.4.	Conclusion	65
6.	EMPOWERMENT, ENTERPRISE AND GENDER	66
6.1.	Introduction and conceptual background	66
6.2.	Gender equality and empowerment – a conceptual model for empowerment analysis	66
6.3.	Findings	68
6.4.	Discussion and conclusions	87

7.	GENDER OF OWNERSHIP IN THE STREET FOOD SECTOR IN AFRICA	89
7.1.	Introduction	89
7.2.	Ownership by gender	89
7.3.	Age of enterprises by gender	90
7.4.	Size of businesses by gender	91
7.5.	Age of business by gender	92
7.6.	Level of education by gender	95
7.7.	Marital status by gender	95
7.8.	Location of business by gender	96
7.9.	Development of business by gender	96
7.10.	Gender shift in ownership and degree of development of enterprises by gender	98
7.11.	Discussion and conclusion	100
8.	URBAN GOVERNANCE AND ENABLING REGULATORY ENVIRONMENTS FOR THE STREET FOOD SECTOR	101
8.1.	Senegalese Regulatory Environment	101
8.2.	Rwandan Regulatory Environment	103
8.3.	South African Regulatory Environment	104
8.4.	Regulation, formalisation and the viability of informal enterprises.	107
8.5.	Conclusion	110
9.	POLICY IMPLICATIONS – MESSAGES FOR POLICY AND PRACTICE	111
9.1.	Re-evaluation of the current regulatory paradigm	112
9.2.	A need for integrated and innovative urban design, infrastructure and spatial planning for street food trading hubs	113
9.3.	Promoting appropriate clean energy technologies and fuels through pilot projects and investment	113
9.4.	Creation of platforms for information dissemination and sharing of best practice	114
9.5.	Quantification of energy costs, sources and uses	114
9.6.	Appropriate energy subsidies and incentives	114
9.7.	Leverage on health and safety good practices	115
9.8.	Set-up appropriate financing mechanisms	115
9.9.	Promote bottom-up initiatives	115
9.10.	Train and educate	116
9.11.	Policy implications and recommendations	116
10.	CONCLUSION	120
	Annex 1 : REFERENCES	124
	Annex 2 : COUNTRY CASE STUDIES AND WORKSHOP PROCEEDINGS	128
11.1.	Country Case Studies	128

11.2. RWANDA Case Study	128
11.3. SOUTH AFRICA Case Study	133
11.4. SENEGAL Case Study	140
11.5. SENEGAL National level indicators	144
11.6. SOUTH AFRICA National Level Indicators	147
11.7. RWANDA National Level Indicators	148
11.8. Workshop Proceedings:	151
Annex 3 : QUESTIONNAIRES	154
Annex 4 : ASPIRATIONS TO GROW	155
Annex 5 : VARIABLES MEASURED FOR THE EMPOWERMENT MODEL	170

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List of figures

Figure 2.1: Analytical framework based on the Theory of Change framework.....	23
Figure 3.1: Main type of energy used by country	28
Figure 3.2 Main type of energy use by gender, Rwanda.....	29
Figure 3.3: Main type of energy use by gender, Senegal	30
Figure 3.4: Sold products and energy used	31
Figure 3.5: Main type of energy use by gender, South Africa.....	31
Figure 3.6: Product sold and gender.....	32
Figure 3.7 : Type of cooking energy service by type of structure in Rwanda	33
Figure 3.8 Type of cooking energy service by type of structure in Senegal.....	33
Figure 3.9 Type of cooking energy service by type of structure in South Africa	34
Figure 3.10: Reasons for type of energy by gender, informal, Rwanda	35
Figure 3.11: Reasons for energy type by gender, formal, Rwanda.....	35
Figure 3.12: Reasons for type of energy by gender, semi-formal, Rwanda.....	36
Figure 3.13: Reasons for type of energy by gender, informal, Senegal.....	36
Figure 3.14: Reasons for energy type by gender, formal, Senegal	37
Figure 3.15: Reasons for energy type by gender, informal, South Africa	38
Figure 3.16: Reasons for energy type by gender, semi-formal, South Africa	38
Figure 3.17: Reasons for type of energy by gender, formal, South Africa	39
Figure 3.18: Reasons for wood, South Africa.....	39
Figure 3.19: Reasons for gas and electricity, women, Rwanda.....	40
Figure 3.20: Reasons for gas and electricity, Senegal.....	40
Figure 3.21: Reasons for gas and electricity, women, South Africa.....	41
Figure 3.22: Reasons for gas and electricity, men, South Africa.....	41
Figure 3.23: Importance of electricity for lighting by country	42
Figure 3.24: Feelings of safety when working at night.....	43
Figure 3.25: Reason of new appliances by country	44
Figure 3.26: Most desired appliances by gender, Rwanda.....	44
Figure 3.27: Most desired appliance by gender, Senegal.....	45
Figure 3.28: Most desired appliance by gender, South Africa	45
Figure 3.29: Reasons for top energy choices, Rwanda.....	46
Figure 3.30: Reasons for top energy choices, Senegal	46
Figure 3.31: Reasons for top energy choices, South Africa.....	46
Figure 4.1: Respondents receiving Free Basic Energy subsidies in SA.....	51
Figure 4.2: Marital status of this receiving energy subsidy.....	51
Figure 4.3: Use of energy subsidies by respondents	52
Figure 4.4: Enterprises relying on energy subsidies, by gender.....	52
Figure 4.5: Energy use at home.....	53
Figure 4.6: Energy use at home per enterprise type	54
Figure 4.7: Energy use at home by gender.....	54
Figure 5.1: Education by gender.....	58
Figure 5.2 : Number of female and male respondents who take breaks to complete child-minding and/or domestic chores	59
Figure 6.1: Conceptual model of factors relating to empowerment of women with street food enterprises (developed by the authors).....	67
Figure 6.2: Decision making in household and enterprise purchase decisions, and gender	69
Figure 6.3: Energy decision making in the household, by gender	70
Figure 6.4: Appreciation by partner and extended family, and gender	71

Figure 6.5: Making household decisions and respected by the partner	72
Figure 6.6: Partner help and making household decisions (left) and enterprise decisions (right).....	73
Figure 6.7: Four direct benefits from enterprise and gender	75
Figure 6.8: Age related to gender	77
Figure 6.9: Education related to gender.....	77
Figure 6.10: Encouragement from child and education level of respondent	78
Figure 6.11: Encouragement from children and age of respondent	78
Figure 6.12: Breadwinner and agenda setting	79
Figure 6.13: Marital Status and household decisions.....	79
Figure 6.14: Gender shift of ownership and household decisions	82
Figure 6.15: Preferred energy source and help from partners	82
Figure 6.16: Country and household decisions	83
Figure 6.17: Solving own problems, by country.....	83
Figure 6.18: Setting own agenda, by country.....	83
Figure 6.19: Country and help from colleagues	84
Figure 6.20: Gender shift of ownership and household decisions	84
Figure 6.21: Country and help from colleagues	86
Figure 6.22: Control of live, by country	86
Figure 6.23: Financial control, by country	86
Figure 7.1 Share of women owners by type of enterprise.....	Error! Bookmark not defined.
Figure 7.1 Share of women owners by type of enterprise.....	89
Figure 7.3: Age of enterprise by gender of owners, Rwanda.....	90
Figure 7.4: Age of enterprise by gender of owners, Senegal	90
Figure 7.5 Age of enterprise by gender, South Africa.....	91
Figure 7.6: Age of owners, Rwanda	92
Figure 7.7: Age of owners, South Africa	92
Figure 7.8: Age of owners, Senegal.....	93
Figure 7.9: Age of owners, by gender, Rwanda	93
Figure 7.10: Age of owners, by gender, Senegal.....	94
Figure 7.11: Age of owners, by gender, South Africa	94
Figure 7.12: Education by gender	95
Figure 7.13: Type of business by marital status.....	95
Figure 10.1: Rental payments.....	132
Figure 10.2: Permit payments	132
Figure 10.3: Business ownership.....	132
Figure 10.4: Mix of energy used.....	132
Figure 10.5: Primary energy sources for cooking in Sub-Saharan Africa (IEA, 2014)	136
Figure 10.6: Access to electricity percent.....	137
Figure 10.7: Energy use among survey respondents.....	139
Figure 10.8: Comparing three possible categories of entrepreneurial logics for women	168

List of tables

Table 1.1: Summary of Research Sample	15
Table 1: Summary of Research Sample.....	21
Table 5.1: Number of respondents that are breadwinners according to gender and marital status	58
Table 5.2: Number of male and female respondents who take breaks to complete non-enterprise tasks.....	59
Table 5.3: Cross-tabulation of gender of the owner, country, description of the location	60

Table 5.4: Statement on necessity driven and gender	61
Table 5.5: Statement on wish to develop into formal business and gender	61
Table 5.6: Statement about hiring labour and gender	62
Table 6.1: Own problem solving and gender	68
Table 6.2: Agenda setting and gender	68
Table 6.3: Household decisions and gender.....	69
Table 6.4: Children’s encouragement and gender.....	73
Table 6.5: Correlations among self-confidence variables and benefits from the enterprise	76
Table 6.6: Marital status and being breadwinner in the household	78
Table 6.7: Marital status, being breadwinner and gender	79
Table 6.8: Relationship between nature of accommodation and setting own agenda	80
Table 7.1 : Nature of accommodation and gender of owner.....	96
Table 8.1: Data Collection targets.....	107
Table 10.1: Summary of demographic characteristics of South Africa	133
Table 10.2: Age of enterprise	135
Table 10.3: Energy statistics of South Africa.....	135
Table 10.4: Grid electrification rates in South Africa.....	138
Table 10.5: Summary statistics for South Africa – Energy expenditure	138
Table 10.6: Fuels available in specific residential areas – Source: SE4ALL Senegal Agenda.....	141
Table 10.7: Frequency of various types of explanations for why they want to grow the enterprise	160
Table 10.8: Explanations for why they want to grow the enterprise by gender	160
Table 10.9: Preferred energy source and survival or growth motivations.....	160
Table 10.10: Supportive conditions mentioned.....	161
Table 10.11: Types of aspired expansion and gender	161
Table 10.12: Statement on necessity driven and gender.....	163
Table 10.13: Statement wish to develop into formal business and gender	163
Table 10.14.: Statement hiring labour and gender.....	164
Table 10.15: Statements reinvesting profits and seeking financial support and gender.....	164
Table 10.16: Preference for gas for cooking and seeking external capital for expansion	165
Table 10.17: Type of enterprise and wish for financial support to invest in nicer stand in SA	166
Table 10.18: Survey questions in relation to the conceptual mode.....	171

ABBREVIATIONS

CIT	Contextual Interaction Theory
DME	Department of Minerals and Energy
EBSST	Electricity Basic Support Services Tariff
FBE	Free basic electricity
LPG	Liquefied petroleum gas
MESs	Modern energy sources
REG	Rwanda Energy Group
SALGA	South African Local Government Association
SFS	Street food sector
TOC	Theory of change

GLOSSARY¹

Access to resources²:	Access refers to the ability to use and benefit from specific resources (material, financial, human, social, political, etc.) although this can be curtailed if there is no control over resources (see below: Control over resources).
Control over resources³:	Entails being able to make decisions over the use of resources including whether others have the right to use or enjoy the benefits of a resource.
Empowerment:	Expansion in an individual's ability to make strategic life choices in a context where this ability was previously denied to them.
Formal enterprises	Enterprises that registered and recognised by the national revenue services whereby they formal taxes
Gender and sex:	Sex refers to the biological differences between male and female bodies. Gender refers to the socially-constructed attitudes, values, roles and responsibilities of women and men, in a given culture and location which are learnt and change over time.
Gender approach:	The design and implementation of policies and projects in such a way that they are more gender aware in their objectives, implementation and outcomes.
Gender blindness:	The failure to recognise the different roles, responsibilities, capabilities, needs and priorities of women and men.
Gender discrimination:	Giving differential treatment to individuals on the grounds of their gender in the distribution of income, access to resources and participation in decision-making.
Gender equality:	Gender equality is the condition in society when both men and women are attributed equal social value, equal rights and equal responsibilities, and have equal access to the means (resources, opportunities) to exercise them.

¹ This glossary is largely based on the Gender and Energy Research Programme Glossary (ENERGIA. 2018).

² Resources are means and goods, including economic (household income) or productive means (land, equipment, tools, work, credit); political means (capability for leadership, information and organization); and time.

³ See footnote 2 for definition of resources.

Gender equitable access (to energy services/technologies):	Access to energy services or technologies that are enabled in ways that ensure women and girls' needs and aspirations are met to live the life of their choosing and which contributes to achieving gender equality.
Gender equitable energy outcomes:	Women and girls lives improve relative to men's as a consequence of energy investments. Women have equal opportunity to men to participate as managers, employees or entrepreneurs in the processes of implementing these investments.
Gender gap:	An observable and sometimes measurable gap between men and women in terms of a specific societal outcome.
Gender goal:	Expresses the desired state for women and men to be achieved by a policy or project.
Gender Impact Assessment:	A process examining policy proposals to see whether they will affect women and men differently, with a view to adapting these proposals to make sure that discriminatory effects are neutralized and that gender equality is promoted.
Gender inequality:	Inequality, on the basis of a person's gender, in access to and control over the various material and non-material resources and assets of a society and the benefits which accrue from these.
Gender issues:	Identification and framing of an incidence of gender inequality.
Gender mainstreaming:	A strategy for ensuring that the concerns and experiences of women and men are an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres.
Gender norms:	Gender norms refer to a wide range of social-cultural accepted notions of what is perceived as "normal" in a community, linked to behaviour, beliefs, attitudes and practices, which determine how individuals perceive their potential and worth.
Gender perspective:	An analytical approach that helps to see whether the needs of women and men are equally taken into account and served by a proposal by questioning the power relationships established between men and women, and social relationships in general.
Gender policy:	Overarching vision or policy on gender adopted by a government, a sector or an organisation, which as a statement of commitment to gender mainstreaming in all their project activities.
Gender Responsive:	Actions that reflect an understanding of the realities of women's and men's lives and addresses the issues taking into consideration the implicit and explicit social norms.
Gender sensitivity:	The ability to recognise gender issues and the different perceptions and interests of women and men arising from their different social locations and different gender roles.
Gender stereotypes:	Preconceived ideas whereby males and females are arbitrarily assigned characteristics and roles linked to their sex which can limit the development of natural talents and abilities restricting life opportunities.
Informal enterprises	Enterprises that do not pay any fees nor taxes

Semi-formal enterprises	These are enterprises that pay the for local permit and/or license fees in order to operate. They do not pay taxes.
Sex-disaggregated data:	Separation of data by sex as the basis of gender analysis.
Women's empowerment:	A process by which women and girls gaining power and control over their own lives through awareness-raising, building self-confidence, expansion of choices, increased access, ownership and control over resources and actions to transform the structures and institutions that reinforce and perpetuate gender discrimination and inequality.

EXECUTIVE SUMMARY

Not only is the street food sector (SFS) an essential source of daily food for the poor and a taste experience for tourists, it is an important source of income for the hawkers, vendors, traders and entrepreneurs that operate street food enterprises, especially for women who dominate this sector in many countries (Mohlakoana et al, 2018; Acho-Chi, 2002; Alves da Silva et al., 2014; Fasoyiro, 2011). A major input for these enterprises is the energy used for cooking, processing and preparing meals and food products, as well as the appliances needed for these purposes. Access to, control and the use of reliable, affordable safe and clean energy sources and services is internationally recognised under Sustainable Development Goal (SDG) 7 and promoted through the Sustainable Energy For All (SE4ALL) organisation. Modern energy sources such as electricity, LPG and natural gas and modern energy appliances linked to refrigeration, cooking and heating can offer enterprises in the street food sector, more time and resource efficient methods of preparing food as well as cleaner and healthier working environments.

However, beyond simply stating the types of energy used by street food enterprises the literature does not explore the dynamics of energy use, or what impact this has upon the empowerment of women and men (de Groot et al 2017). Furthermore, the use of energy for production and income generation by the urban poor is often overlooked by energy policies and programmes (Bhattacharyya 2012). The literature on productive uses of energy responds to the need to focus on the links between energy access and economic development.

Our research is focussed on the gendered use of energy in the street food sector in Rwanda, Senegal and South Africa. We explore the links between use of modern energy services (MESs) and empowerment of men and women in the street food sector. Since the causality of clean and renewable energy development and gender equality are context-driven (Mohideen 2012) we also focus on the contextual factors influencing energy use and strategies in the street food sector.

The main research questions that guided the development of our in-depth questions and survey questions are as follows:

- What are the impacts of access and use of MESs on enterprise development for enterprises owned and operated by women and by men? What are the effects of this access and use on output and/or quality of products and profitability for food preparation and processing on micro and small enterprises?
- From a gender perspective, what motivates the adoption of MESs in the energy mix of SFS entrepreneurs, and how does access and use of MESs affect a) enterprise development; b) output; and c) profitability of food preparation and processing for micro and small enterprises?
- Which contextual factors (income sources, culture, political leadership, policy and regulatory frameworks, institutional mechanisms and vulnerability) influence the uptake of MESs by micro and small enterprises in the food preparation and processing value chain?
- What is the relationship between the adoption of MESs in women's productive activities, enterprise development and their empowerment, and what types of empowerment can be distinguished?

This research specifically contributes empirical evidence to the research area: energy for productive uses. Energy for productive uses was identified as one of five key research areas by ENERGIA in their DIFD funded call for proposals published in 2014. Led by the University of Twente in the Netherlands, our consortium of research partners includes the Energy Research Centre (ERC) at the University of Cape Town (UCT), ENDA in Senegal and MARGE in Rwanda. Our research focuses on informal, semi-formal and formal enterprises in the street food sector (SFS) in the urban areas of three African countries (Rwanda, Senegal and South Africa).

Using mixed research methods, we have surveyed and interviewed a wide range of male and female owned enterprises: including those preparing meals and snacks as well as those that process food products such as tea,

coffee, nuts, dairy and fish. We targeted informal, semi-formal and formal enterprises and we defined these terms as follows:

- Informal (not paying any fees)
- Semi-formal (paying rent and/or permit and/or license fees)
- Formal (tax registered and paying to the revenue services)

The table below summarises our sample in more detail and provides a preview of the data that was gathered.

Table 1.1: Summary of Research Sample

	Senegal	South Africa	Rwanda	Total%	Nominal Total
In depth interviews	36	36	33		105
Sample size	240	271	240		751
Gender:					
Women owned enterprises	131 (55%)	215 (79%)	128 (53%)	63%	474/751
Male owned enterprises	109 (45%)	56 (21%)	112 (47%)	37%	277/751
Ownership:					
Respondents who are owners and co-owners	215 (90%)	197 (73%)	199 (83%)	82%	618/751
Respondents who are employees	13 (5%)	64 (24%)	41 (17%)	18%	133/751
Respondents who are relative of owner	12 (5%)	10 (3%)	0	3%	22/751
Formality:					
Targeted Number informal	200 (83%)	125 (46%)	163 (68%)	65%	489/751
Targeted Number semi-formal	0 ⁴ (0%)	110 (41%)	40 (17%)	20%	150/751
Targeted Number formal	40 (35%)	36 (32%)	37 (33%)	15%	113/751
Type of Food:					
% Barbequed food	50 (26%)	90 (47%)	52 (27%)	26%	192/751
% Stewed meat dishes	100 (39%)	134 (53%)	20 (8%)	39%	254/751
% Deep fried snacks	43 (21%)	27 (13%)	137 (66%)	28%	207/751
Type of 'premises':					
Formal permanent structure	36 (14%)	154 (62%)	59 (24%)	33%	249/751
Informal structure; e.g. cart or mobile stand in public space	49 (33%)	82 (55%)	19 (13%)	20%	150/751
Space at/near home or neighbour	114 (45%)	10 (4%)	132 (52%)	34%	256/751
No structure, e.g. blanket	41 (44%)	25 (27%)	28 (30%)	13%	94/751

Our first major and unexpected finding was that there are many similarities in energy use among women and men in this sector and the choice of energy source is mainly determined by the type of product prepared. We also established that at a country level there are some small differences related to energy use among men and women and there are influenced by different contextual issues. (Figures 3.2, 3.3 & 3.5 in Chapter 3)

In Rwanda, informal and semi-formal enterprises predominantly use charcoal because it is affordable, easy to use and easy to gather. Formal enterprises also use charcoal for these reasons. Informal enterprises state more than others that using charcoal is the only option. Formal enterprises use a mix of electricity, gas and charcoal

⁴ There were no enterprises categorized as semi-formal in Senegal for this study due to the inconsistent 'tax' collection and payment methods by those not regarded as formal enterprises.

whereas only a few semi-formal enterprises use gas and informal enterprises do not use gas. Electricity and gas are considered to be clean and fast. There are no major differences among women and men's preference for energy use other than women, slightly more than men, appreciate that gas and charcoal are easy to use and that charcoal is easy to gather. (See figures 3.10, 3.11, and 3.12)

In Senegal, gas is the main source of energy used by both informal and formal enterprises, followed by charcoal and electricity. Enterprises using charcoal in Senegal find it to be affordable, easy to use and easy to gather. Formal and informal enterprises say that charcoal is "best for product". Gas is preferred by all enterprises because it is easy to use, affordable, clean and "best for product", however informal enterprises operated by women still prefer charcoal more than gas. The main difference in energy use patterns among formal and informal enterprises is that formal enterprises use electricity for a variety of reasons whereas only a small portion of informal enterprises use electricity at all. (See figures 3.13 and 3.14)

In South Africa, gas is the most common energy source used by informal, semi-formal and formal enterprises and is preferred by all because it is fast to use. This attribute appears to be the most important attribute for energy among South African enterprises. Women prefer gas mainly because it is easy to use and affordable, whereas men mention a number of different reasons for using gas. All enterprises also use electricity except for men operating informal enterprises. The preferences for electricity are varied and no major differences between genders emerge. Unlike Rwanda and Senegal, only men operating informal enterprises use charcoal, instead enterprises in South African SFS use wood. Using wood is most common among women operating informal enterprises and the stated preferences are affordability and best for product. (See figures 3.15, 3.16, and 3.17; Chapter 3.)

Secondly, **enterprises in the SFS use multiple sources of energy**, averaging at 2.33 energy carrier per business activity across the three countries. Men diversify more, and this is linked to their higher use of electricity, mostly to power non-food related appliances, such as TVs and radios.

Our third finding, although unsurprising, is that **both men and women recognise the benefits of using gas and electricity and this relates to the business acumen of enterprise owners.**

In Rwanda (Figure 3.19), the drivers to use gas and electricity over other fuels are mainly related to the productivity, rather than to improve the quality of the product itself. The largest majority of respondents in Senegal (Figure 3.20), with the only exception of formal businesses run by women, claim gas and electricity would improve the quality of products and increase product sales. In South Africa, most respondents are of the opinion that MES would make tasks easier and quicker – this is the case especially for formal and informal businesses, whereas semi-formal businesses claim that gas and electricity would improve the quality of the products. (See Figures 3.21)

Electricity for lighting is a valued service even for street food enterprises. Our data shows that 39% of Rwandan respondents consider electricity for lighting to be important for extending working hours compared to 24% in Senegal 21% in South Africa (page 41). In Senegal, 19% of owners value lighting for higher sales and more customers and 26% of respondents in South Africa value lighting for ease of working. Our analysis also presents issues of safety in relation to lighting energy sources (Figure 3.24).

In terms of appliances, **gas cookers are among the top desired appliances across the three countries.** The main reason gas cookers are desired is to simplify and accelerate cooking tasks. In South Africa, electric cookers are also desired. And in Senegal, radios and TVs and fans are desired to improve their business. The main reason why enterprises in the SFS want new appliances is to attract more customers: 75% Senegal, 77% in Rwanda and 88% in South Africa. These findings show how all respondents are growth-oriented. Other common reasons for wanting new appliances for Senegal and South Africa is to increase efficiency and simplicity in processes, and for Rwanda the reason is to lower the energy costs (See Figures 3.25 - 3.28).

Another important finding is that **home energy sources are used by owners and employees for productive uses in their enterprises**. In South Africa, the indigent households receiving energy subsidies use them to support their enterprises. This point shows that energy subsidies are important and do benefit income generating activities for the low-income households without formal employment. (See chapter 4)

Although we had hoped to find evidence to show that the use of MES in enterprises in the SFS correlates with greater empowerment, the data shows that **the degree of formality of the enterprise and the modernity of the main energy source used have hardly any effect on empowerment and related enterprise variables**; there is only a small negative correlation between the degree of development of the enterprise accommodation and the direct benefits that are ascribed to having the enterprise (See chapter 6)

While many government policies are directed towards increasing the degree of formality of the enterprises, the data suggests that ‘empowerment’ alone would not be a good reason to justify those policies.

We did however find that **women and men in this sample, exhibit a highly level of self-confidence, decision making power, and appreciation** by their partners and family. (See chapter 6.3, Figures 6.4 & 6.5) Vast majorities of owners agree and agree strongly that their enterprise provides them with the following benefits:

- My enterprise allows me to take control over my life financially,
- My enterprise allows me to take control over my life,
- Being an entrepreneur makes me more confident at home,
- My enterprise allows me to engage more with society

67% of women owners agreed that they make the important household decision themselves and 27% of women make them together with men. For men owners the figures are 69% and 22%. This is very similar to the responses about who makes important purchasing decisions in the enterprise. Majority of female respondents (88%) and male respondents (80%) in our sample make decisions about energy use in their household on their own or with their partner. Only 1% of the female respondents say that their partner/husband makes a decision on the energy use in their household while 6% of the male respondents say that it’s their wife/partner that makes this decision.

And, majority of owners agree and agree strongly with the appreciation statements: “Having this enterprise makes me more respected by my partner than when staying at home” and “Having this enterprise makes me more appreciated by my extended family”. These are not correlated with the gender of the owner.

While it is expected that **our data confirms that the SFS is dominated by women**, we are also interested in why this is so (see chapter 5). Like other sectors of the informal economy, women are attracted to the street food sector as a means to earn livelihoods. In our study, **75% of all respondents identified themselves as the main breadwinner in their household** – this was similar for both men and women. 74% of women identified as the main breadwinner in their household, and 77% of men did so too. Also the data shows that **while 91% of both men and women are necessity driven, they do aspire to grow their enterprise. Being necessity driven and growth orientated are not mutually exclusive, and development policies should not neglect these enterprises in this sector**.

Only a third of women do benefit from the ability to undertake child-minding and domestic chores during working hours in our sample. Some women also benefit from the opportunity to use leftover food to supplement home meals. These benefits are similar for men in our sample.

The ability to locate one’s business close to home in order to take care of household domestic chores and child-minding is attractive for women in Rwanda and Senegal. Even if the most important factor for enterprise placement is that it is a good place to attract customers, women do benefit from operating enterprises or being employed in close proximity to their home, as the majority of them are married and carry the burden of child-

care and domestic chores. This is not the case for South Africa, where there are few married women in the street food sector.

Unlike other sectors of the informal economy, the street food sector involves skills of cooking, and food preparation. No formal education is required and **respondents show very low levels of education. Men and women with low levels of education are attracted to this sector**, even though higher formalisation in the business has a direct correlation with higher level of education across the three countries. Although the data shows that both men and women undertake cooking tasks in this sector, women might be attracted to this sector because traditionally, cooking and food preparations skills are domestic skills learnt by mostly girls and women in Africa.

When developing policies that support women's empowerment and/or the development of sectors dominated by women, it is important to consider whether any unintended consequences may loom in the wake of such development. Using our data, we examined the gender of ownership in the street food sector. We wanted to know if a female owned enterprise becomes successful, what the risk of a male-takeover is. The data showed that the takeover of enterprises from female-to-male ownership (11) is far lower than male-to-female ownership (118) in all three countries. In Rwanda, the takeover of male-to-male ownership is high compared to other gendered takeovers (80/240). **Overall we can conclude that there is no evidence for a male takeover in this sector**, and this is the case regardless the level of formalisation of the business (See chapter 7). However, regulations and even support policies could nevertheless start such biased impact when they activate restrictions and supports that affect women and men unequally. It is therefore important to have cautious and active gender-aware policies and interventions that support gender specific needs such as for business growth and energy use to ensure equal access to business opportunities. Just gender 'blindness' is not enough when culture creates differently gendered expectations and norms and indirect effects of measures, e.g. access to credit facilities, are not deliberately equalized.

The data also showed that on average female owned enterprises have been in operation for more years than male owned enterprises. And the share of newly started female owned enterprises is bigger than that of male start-ups: 70% of newly started enterprises (257/364) are owned by females. These female start-ups make up 54% (257/464) of all female owned enterprises in our sample. It appears that **women in this sector do not face many barriers to entry**.

A major contextual factor affecting the SFS is the regulatory environment, which is different for each country (see Chapter 8). A mix of policies and strategies targeting the inclusion of the informal economy are already being developed and implemented in Rwanda, Senegal and South Africa. These policies relating to the informal economy have a significant impact upon the street food sector which is comprised of many informal and micro-enterprises. In Senegal, however, despite the large number of official initiatives and policies, effective implementation is poor, mostly due to corruption and excess of bureaucracy, which have permeated the system, negatively affecting businesses at all levels, and exacerbated by an economic system, which favours large monopolies to the detriment of small new businesses. In Rwanda, while the formalisation of the informal economy does not occupy a high position in the political agenda of the country, several successful bottom-up initiatives, aiming at the semi-formalisation of the sector, can be found at municipal level. In South Africa there are national and local policies that promote the formalisation of the informal or "second" economy. However there are many reasons why the informal food economy keeps playing an important role in the overall informal economy of the country: the need for mobility, given that street traders tend to gravitate to areas where there is foot traffic like commuter points; the request for low prices, which can only be achieved by businesses that do not pay taxes (on average the cost in formal shops was 76% more than the same product sold by informal traders); and the need for small and cheap portions, allowing small informal businesses to still make profits on small quantities appropriated.

Based on the evidence gathered in this research, we argue that **developing the economic potential of the SFS will go hand in hand with increased use of modern energy services in the sector, and the social and economic empowerment of men and women operating street food enterprises.** Finally, ten policy considerations are presented in Chapter 9, which aim to support the economic development of the SFS as a first step to recognising their role in urban food security, economic development and the empowerment of women and men in the sector. Specific energy programmes can be catalysts of economic development in the sector, however other initiatives such as food safety programmes can be catalysts for increasing the uptake of modern energy services. Chapter 10 concludes the report.

1. INTRODUCTION

In recent years, street food has become a trendy way for tourists to taste local flavours and experience traditional cuisine (Privitera and Nesci 2015). There is a long list of delicious and affordable snacks and meals all around the world such as: *Arepas* in Colombia, *Falafel* in Israel, *Kottu Roti* in Sri Lanka, *Banh Mi* in Vietnam, *Pad Thai* in Thailand, *Jerk* chicken in Jamaica, *Currywurst* in Germany, *Pastel de Nata* in Portugal and *Poffertjes* in the Netherlands (Gale 2017). In Africa too, vendors, hawkers, traders and enterprises on the streets of many urban centres also serve affordable meals, snacks and beverages during the day and into the night. In Dakar, Senegal a popular meal at lunchtime is *thiebou dieune*. A travel article explains that this fish and rice meal “can have a spicy stuffing, accompanied by veggies like carrots, potatoes or eggplant. The dish is cooked in a broth that makes it rich and flavourful. The intensity of the spice is usually not too heated, but the chillies on the side must be added gingerly” (Shea 2018). In Rwanda a milk drink called *ikivuguto*, is very popular. It is fermented milk similar to sour drinking yogurt and is considered a very healthy beverage loaded with probiotics. Another travel article adds that the milk is served at a variety of street-side milk bars, and “snacks like samosas, muffins, hard-boiled eggs, and chapati are available too” (Feiger 2018). And in South Africa, a deep fried snack called *amagwinya* in Isizulu or *vetkoek* in Afrikaans, is made from flour dough and can be served plain or with a savoury filling like vegetable curry or fried egg and cheese. Customers can take these snacks away with them or eat them at the seating areas provided. These affordable meals, snacks and beverages cater for local customers but have become popular for tourists too.

Since a large proportion of street food enterprises are informal, it is difficult to measure or estimate the size of the sector and the number of people who rely on the sector for their incomes and daily nutrition (Alimi 2016). In an article about urban food (in)security, Cohen and Garret (2010) explain that consumption of street food varies across countries and cities:

“In Nigeria, city dwellers spend up to half their food budget on street foods. Residents of Bamako, Mali rely on street foods for an average of 250 calories per day. In Accra, street foods account for 40 per cent of low-income families’ food purchases and even 25 per cent in high-income brackets.”

In a report series by the African Food Security Urban Network (AFSUN), Battersby et al (2016) argue, “it is essential to understand the dynamics of the informal food retail sector because of its vital role in ensuring greater access to food by the urban poor”.

Not only is the street food sector (SFS) an essential source of daily food for the urban poor and a taste experience for tourists, it is an important source of income for the hawkers, vendors, traders and entrepreneurs that operate street food enterprises, especially for women who dominate this sector (Mohlakoana et al, 2018; Acho-Chi, 2002; Alves da Silva et al., 2014; Fasoyiro, 2011). A major input cost for these enterprises is the energy used for cooking, processing and preparing meals and food products. Access to and the use of reliable, safe and clean energy sources and services is internationally recognised under Sustainable Development Goal (SDG) 7 and promoted through the Sustainable Energy For All (SE4ALL) organisation. Modern energy sources such as electricity, LPG and natural gas and modern energy appliances linked to refrigeration, cooking and heating can offer enterprises in the street food sector, more time and resource efficient methods of preparing food as well as cleaner and healthier working environments.

However, beyond simply stating the types of energy used by street food enterprises the literature does not explore the dynamics of energy use, or what impact this has upon the empowerment of women and men (de Groot et al 2017). Furthermore, the use of energy for production and income generation by the urban poor is often overlooked by energy policies and programmes (Bhattacharyya 2012). The literature on productive uses of energy responds to the need to focus on the links between energy access and economic development.

Our research is focussed on the gendered use of energy in the street food sector in Rwanda, Senegal and South Africa. We explore the links between use of modern energy services and empowerment of men and women in the street food sector. Since the causality of clean and renewable energy development and gender equality are context-driven (Mohideen 2012) we also focus on the contextual factors influencing energy use and strategies in the street food sector.

This research specifically contributes empirical evidence to the research area: energy for productive uses. Energy for productive uses was identified as one of five key research areas by ENERGIA in their DIFD funded call for proposals published in 2014. Led by the University of Twente in the Netherlands, our consortium of research partners includes the Energy Research Centre (ERC) at the University of Cape Town (UCT), ENDA in Senegal and MARGE in Rwanda. Our research focuses on informal, semi-formal and formal enterprises in the street food sector (SFS) in the urban areas of three African countries (Rwanda, Senegal and South Africa).

Using mixed research methods, we have surveyed and interviewed a wide range of male and female owned enterprises: including those preparing meals and snacks as well as those that process food products such as tea, coffee, nuts, dairy and fish. We targeted informal, semi-formal and formal enterprises and we defined these terms as follows:

- Informal (not paying any fees nor tax)
- Semi-formal (paying for local permit and/or license fees, no tax) – also change in introduction
- Formal (tax registered and paying to the national revenue services)

Table 1: Summary of Research Sample

	Senegal	South Africa	Rwanda	Total %	Nominal Total
In depth interviews	36	36	33		105
Sample size	240	271	240		751
Women owned enterprises	131 (55%)	215 (79%)	128 (53%)	63%	474/751
Male owned enterprises	109 (45%)	56 (21%)	112 (47%)	37%	277/751
Ownership:					
Respondents who are owners and co-owners	215 (90%)	197 (73%)	199 (83%)	82%	618/751
Respondents who are employees	13 (5%)	64 (24%)	41 (17%)	18%	133/751
Respondents who are relative of owner	12 (5%)	10 (3%)	0	3%	22/751
Formality:					
Targeted Number informal	200 (83%)	125 (46%)	163 (68%)	65%	489/751
Targeted Number semi-formal	0 ⁵ (0%)	110 (41%)	40 (17%)	20%	150/751
Targeted Number formal	40 (35%)	36 (32%)	37 (33%)	15%	113/751
Type of Food:					
% Barbequed food	50 (26%)	90 (47%)	52 (27%)	26%	192/751
% Stewed meat dishes	100 (39%)	134 (53%)	20 (8%)	39%	254/751
% Deep fried snacks	43 (21%)	27 (13%)	137 (66%)	28%	207/751
Type of 'premises':					
Formal permanent structure	36 (14%)	154 (62%)	59 (24%)	33%	249/751

⁵ There were no enterprises categorized as semi-formal in Senegal for this study due to the inconsistent 'tax' collection and payment methods by those not regarded as formal enterprises.

Informal structure; e.g. cart or mobile stand in public space	49 (33%)	82 (55%)	19 (13%)	20%	150/751
Space at/near home or neighbour	114 (45%)	10 (4%)	132 (52%)	34%	256/751
No structure, e.g. blanket	41 (44%)	25 (27%)	28 (30%)	13%	94/751

Table 1 summarises our sample in more detail and provides a preview of the data that was gathered.

The use of energy sources in this sector is also a very visible activity, requiring infrastructure, supply networks and contributes to waste and pollution. As in many other cities, Anjaria (2006, 2140) describes the presence of street food enterprises in Mumbai’s public spaces as both essential and contentious, requiring “critical engagement with the function of public space and the role of street hawkers in future plans for the city”. Understanding energy use dynamics in the Street Food Sector is therefore relevant for practitioners working in public space planning and management as well as those concerned with the sustainable livelihoods of urban poor, urban food security, clean energy, environmental health, gender empowerment, economic development and tourism.

1.1. Report outline

This report presents the research background and analyses conducted by Research Area Two (RA2) within the Gender and Energy Research programme. Additional outputs such as policy briefs, journal articles and stakeholder workshops have also been produced during this project.

Chapter 2 gives some background and details about the research process from the scoping phase to the second phase. Chapter 3: “Energy use” focuses on the use of the traditional and the modern energy sources by level of formality, gender and country. Chapter 4: “Home energy” explores whether enterprises benefit from home energy subsidies, as is the case specifically in South Africa. Chapter 5 tests five assumptions about why women dominate this sector. Chapter 6 focuses on empowerment and entrepreneurship among men and women in the street food sector using variables linked to the individual’s experience of empowerment. Chapter 7 presents the analysis of ownership according to gender and whether the sector is at risk of a male take-over. Chapter 8 provides some context about regulations affecting the sector in each country and enterprises aspirations to formalise. Chapter 9 presents a series of evidence based policy recommendations. Finally, Chapter 10 provides a brief conclusion and way forward.

2. BACKGROUND

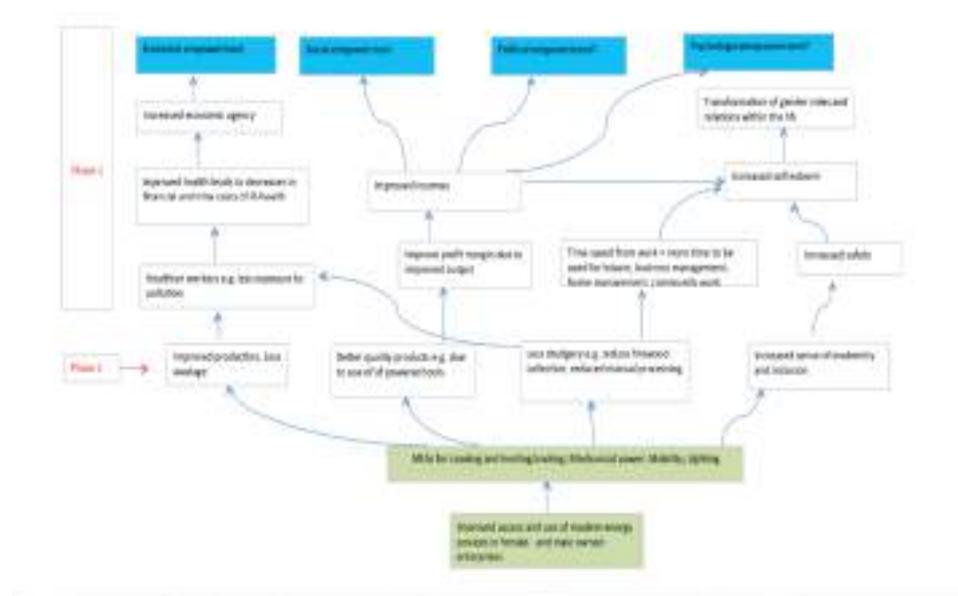
2.1. Scoping Phase

In 2015, we started looking at the productive uses of energy in food preparation and processing in the informal food sector⁶ in Rwanda, Senegal and South Africa. For the initial stage of the study – the scoping phase – we conducted surveys and interviews with respondents employed by and owning micro and small enterprises based in the urban areas of these three countries. The choice for urban areas in these countries is because urban areas in developing countries are also viewed as locations where people can seek income-generation activities, and locations within and surrounding the urban areas in the Global South countries that are less developed, are likely to have better access to modern energy services (MESs) such as electricity and gas (da Silva et al., 2014; de Groot et al., 2017; Clancy, 2006).

For purposes of the scoping study, we defined micro and small enterprises as informal enterprises informally employing⁷ one to five people at any given time and having little access to capital to cover their costs due to their informal nature.

During this scoping phase, our research consisted of a detailed review of the literature and a survey of street food enterprises in all three countries. We used the Theory of Change (TOC) Framework to present our assumptions about how modern energy services (MESs) contributes to the empowerment of men and women in the street food sector (SFS) – see Figure 2.1.

Figure 2.1: Analytical framework based on the Theory of Change framework



Our Scoping Phase research questions aimed to test the first level assumptions made about the impacts of modern energy sources (MESs) on the street food sector. In Table 2.1, we highlight the assumed impacts of Modern Energy Services as per our study proposal. Based on these assumptions, we developed a number of

⁶ Due to the heightened sensitivity displayed by some stakeholders in our countries of research, where it was found unacceptable to refer to their food sector as informal, we have decided to use the term 'street food sector' which covers enterprises that may be informal, semi-formal and formal.

⁷ In most cases for micro and small enterprises, employees tend to be relatives of the enterprise owner and may be paid in cash or in kind.

questions (see Annex 3 for the Scoping Phase and Phase 2 questionnaires for surveys and in-depth interview guides).

Table 2.1 Assumptions and impacts

Assumptions about MESs	Assumptions about specific impacts on female- and male-owned enterprises
Cleaner and more efficient production/increased productivity	The enterprise ceases to use 'dirty sources'
Better quality products	Clean energy results in clean food products
Less drudgery	The enterprise is less dependent on traditional fuels
(Increased) sense of modernity	Modern energy use leads to improvements by the users

In the scoping phase, we mapped and identified enterprises in the street food sector and we used a questionnaire with open- and close-ended questions. We surveyed up to 60 informal food enterprises in each country and conducted a total of 15 in-depth interviews that were gender-disaggregated. The purpose of the scoping phase was to pilot the questionnaire and gain greater understanding of the operations of the informal food sector and the issues pertaining to productive uses of energy, as well as the gender considerations that shape this sector. This scoping phase allowed us to collect information to build upon during the second phase of the research study.

Although it was the aim to interview the same enterprises during the second phase of the study, this was not achievable for all research locations due to the change of interviewing teams as well as anonymised personal details of people that were interviewed during the scoping phase.

Our base research questions cover the following issues: (i) enterprise ownership; (ii) decision making; (iii) the amount of work (in time) that the enterprise requires – to measure drudgery; (iv) type of products produced; (v) type of energy sources used at the enterprise and at home; (vi) regulations that govern the operation of enterprises; and (vii) use (and aspirations to use) of modern energy sources (types of energy services). Where necessary, the research teams employed assistants for data collection, and consulted with key informants and gatekeepers for background information about specific areas and enterprises.

2.2. Second Phase

The second phase of our study gave us an opportunity to revise the questionnaire, which had been developed during the scoping phase. The team had better knowledge of the street food sector in the different countries and had devised some methods on how to find out about the important gender issues that influence this sector's operation with regards to energy use, employment and ownership of enterprises in the sector, importance of traditional and modern energy sources and empowerment.

2.2.1 Research objectives for the second phase

The research objectives identified for the second phase of this research are as follows:

- To conduct further analysis of data collected during the scoping phase in order to provide different forms of evidence-based responses to our initially proposed questions. This process will also assist the team in identifying the data gaps before embarking on additional fieldwork.
- To collect additional qualitative and quantitative data in order to strengthen the information and knowledge gathered during the scoping phase.
- To explore the contextual factors and regulatory frameworks that influence the use of MESs by men and women in the street food sector and processing enterprises.

- To use a gender lens in exploring the motivations behind the adoption of MESs in the energy mix of SFS entrepreneurs and assess the impacts on the enterprise of MES access and use.
- To explore the specific contextual factors (income sources, policy and regulatory frameworks, politics, institutional mechanisms) that influences the uptake of MESs by enterprises in the SFS.
- To investigate the underlying gender, energy and empowerment issues that influence specific business development behaviour differences between the survival and growth-oriented enterprises in our sample.
- To assess the relationship between the adoption of MESs and empowerment.
- To influence policymaking and implementation processes in both the energy and informal trade sectors by producing gender considerate results and action plans that can be easily adoptable by policy authorities at national and international levels.

2.2.2 Main research questions and sub-questions for the second phase

The main research questions that guided the development of our in-depth questions and survey questions in the Second phase (Years 2-4) are as follows:

- What are the impacts of access and use of MESs on enterprise development for enterprises owned and operated by women and by men? What are the effects of this access and use on output and/or quality of products and profitability for food preparation and processing on micro and small enterprises?
- From a gender perspective, what motivates the adoption of MESs in the energy mix of SFS entrepreneurs, and how does access and use of MESs affect a) enterprise development; b) output; and c) profitability of food preparation and processing for micro and small enterprises?
- Which contextual factors (income sources, culture, political leadership, policy and regulatory frameworks, institutional mechanisms and vulnerability) influence the uptake of MESs by micro and small enterprises in the food preparation and processing value chain?
- What is the relationship between the adoption of MESs in women's productive activities, enterprise development and their empowerment, and what types of empowerment can be distinguished?

2.2.3 Methodology for the second phase

We collected data through surveys from 751 enterprises in total from Rwanda, Senegal and South Africa and carried out a total of 105 in-depth interviews. During this phase, we decided to use a digital questionnaire for consistency across the countries – where needed, the questionnaire was translated into local languages.

We applied cluster sampling due to the dispersed locations of the street food sector enterprises, and several sub-locations were selected within each case study country. In each country, we made a decision to select two cities as primary sites of data collection (i.e. Cape Town and Durban in South Africa; Dakar and Kaolack in Senegal and Kigali city and surrounding districts in Rwanda⁸). Within these sites, specific neighbourhoods were targeted depending on various factors such as energy access, energy used, time of enterprise operation and food processing activities taking place.

Although the aim was to have both male and female-owned and operated enterprises, we did not purposely disaggregate our sample during the selection process as we wanted to ensure that it represents the true form of enterprise ownership and employment dynamics to some extent in these areas. Therefore, the sample is representative of the specific areas where we conducted our surveys and in-depth interviews in each country.

⁸ Note that Kigali city is within Kigali province. Therefore, Kigali's city limits cover the whole province, hence the it's three administrative districts were all included in the sample.

With regards to enterprise ownership among male and female respondents, the sampling was random and purposive in all three countries (particularly in the selection of formal enterprises) to represent enterprises in three different types of locations: street vendors, home producers and public spaces, and to represent different sources of energy use. The data therefore reflects the gender distribution of entrepreneurs in the street food sector in the three countries, but as can be noticed in the numbers of our sample, the data does provide an overrepresentation of informal and semi-formal enterprises and fewer formal enterprises. The main reason is that the aim of the study from inception, was to target informal food enterprises in the street food sector. After the scoping phase, we decided to include formal enterprises for comparative purposes, particularly regarding gender of enterprise owners and energy use for product preparation amongst other issues. From our analysis based on data and observations as well as literature on general energy use patterns, we could deduce that energy use in the enterprise we researched is to some extent, representative of the street food sector in the similar areas in these cities.

We analysed our data using a combination of software such as Excel, SPSS for the quantitative data and NVivo for the qualitative data.

In the survey design we took care that most variables have values in a meaningful order, making them “ordinal level” variables. That does not only hold for the responses to statements, that typically range from “strongly agree” to “strongly disagree” in a five-point scale. Also many other variables have an ordinal scale, like “position in the enterprise” (owner – co-owner – employee – temporary worker), in this case indicating the strength of the position of the respondent in the enterprise. We used recoded answer categories for variables like “who makes the major decisions in the household” for which five original, nominal answer categories were recoded into “myself – together with partner – others”, indicating the degree of independence of the respondent, as part of the empowerment measurement. Often, we kept both versions of variables, the one with many nominal answer categories, like the different sources of energy used, and the one with a meaningful sequence of for instance modern versus traditional sources of energy. Another example of this is the variable marital status, for with analyses with percentages were done for the original nominal answer categories “single – married – divorced – widowed” but also a recoded variable was used in which just “single” (including divorced and widowed) and “married” were discerned.

When analysing these ordinal level variables, next to visualisation with cross tabulations, often Spearman’s Rho⁹ in SPSS was used to indicate the strength of the relationship between two variables.

Spearman’s Rho and its associated significance test are deliberately also used when one or both of the variables has just two answer categories, so-called dichotomous variables. In such cases, often T-tests and similar statistics are used, with which you can show to what extent the two answer categories of the one variable make any kind of significant difference for the answers to the other variable. The reason that also in these cases we use Spearman’s Rho and its associated significance test, is that in this gender oriented study we are not indifferent to the sign of the relationship. The most crucial variables in our study are the gender of the respondent and the gender of the owner. It is very important to find out whether for instance women use more modern sources of energy than men, or the other way around, not just whether the gender variable makes any difference at all. When using Spearman’s Rho, or any correlation coefficient, with a dichotomous variable (one with just two answer categories) it is important to make sure that the text makes clear what the sign of the relationship indicates, for instance whether a negative relationship means that men or alternatively that women use more

⁹ Spearman’s Rho is a measurement that indicates how strong the relationship is between two variables of ordinal level or higher. The coefficient can range from 1 (implying a perfect relationship: the more of this, the more of that) via 0 (no relationship at all) to -1 (implying a perfect negative relationship: the more of this, the less of that).

modern energy sources. We made sure that in our text in the analysis chapters there can be no doubt about the interpretation of the positive or negative sign of the correlations mentioned.

2.3. Lessons from methodology

In planning our research methodology for the Scoping Phase and the Second Phase, we considered the complexities that would be expected from a multi-country study as ours. Below are the main issues that we consider as lessons from our study's methodology.

Questionnaire development: Our questionnaire development process for both phases had to consider the differences in each country and ensure sensitivities experiences in the street food sector, informality and regulations. In order for the study to be accepted by the stakeholders in Rwanda, we had to change its title from 'Informal Food Sector' to 'Street Food Sector'. This is because of the efforts by the government to eradicate informality and ensure that all businesses operating there have official permits to do so. Changing this term was important also for presentation of our data to the key stakeholders such as policy makers where some preferred to refer to these micro enterprises as semi-formal. Since the term was changed after data was collected, there were no implications for interpretation. We do still refer to informality in the context of the street food sector, as this is an important context of this study in all three countries.

Translation: The questionnaire had to be translated from English to Kinyarwanda in Rwanda and French in Senegal. In South Africa there was no need for the translation of the questionnaire as the enumerators were multilingual and where necessary, they could translate the questions in the local languages of IsiXhosa and IsiZulu.

Questionnaire - From paper to digital: During the scoping phase, we administer our surveys and in-depth interviews using paper questionnaires. Due to translation of the responses, the data capturing and cleaning process took long and analysis was delayed. We therefore decided to use a digital platform to capture data for the next phase. We used a software known as 'SurveyCTO' whereby our teams in the three countries could conduct interviews and capture responses which were immediately uploaded into the database. This made it easy to monitor all the information and to provide the teams with immediate feedback which minimized the errors.

Energy costs quantification: During the scoping phase, we collected data on energy costs for each enterprise based on the type of energy sources they were using. The analysis of this data raised unforeseen complexities such as the different measurements used by enterprise owners, especially for traditional sources of energy such as wood and charcoal. It was also obvious that even within the same country, district and area, fuel measurements were different and therefore quantifying these was not easy. With regards to modern energy sources such as LPG and electricity the sources were used over different time scales making it difficult to assess how long the fuel lasts, even for the same food preparation purposes. In other cases, the fees paid for the enterprise space included some energy source fee. Other enterprise owners used their home energy sources to supplement their enterprises and therefore could not exactly quantify their energy costs

3. USE OF ENERGY

In this section we analyse the use of energy when factors such as age, food type, or level of business formality are considered. This is to assess whether there are major differences among different business types, with a specific focus on gender aspects. In doing this we feel that the findings would allow a more gendered policy response (as outlined in chapter 9: Policy Considerations)

3.1. Types of energy sources used and food products, by country, level of formality and gender

This chapter presents the different sources of energy used in the SFS per country, analysing them by gender and level of business formalisation, among others, we also investigated which source of energy is used for each type of food product prepared, cooked or sold at the premises.

In order to assess multiple fuel use patterns, we used questions that enabled respondents to provide multiple responses, which may make the sample seem larger than the actual number. The number of responses captured with regards to energy type use was 427 for Rwanda, 563 for Senegal, and 763 for South Africa, showing that respondents at these enterprises relied on more than a single source of energy.

In Rwanda the predominant fuel is charcoal, in Senegal a mix of charcoal and gas, while in South Africa this is gas (Figure 3.1).

A small number of respondents in all three countries refused to respond.

Figure 3.1: Main type of energy used by country

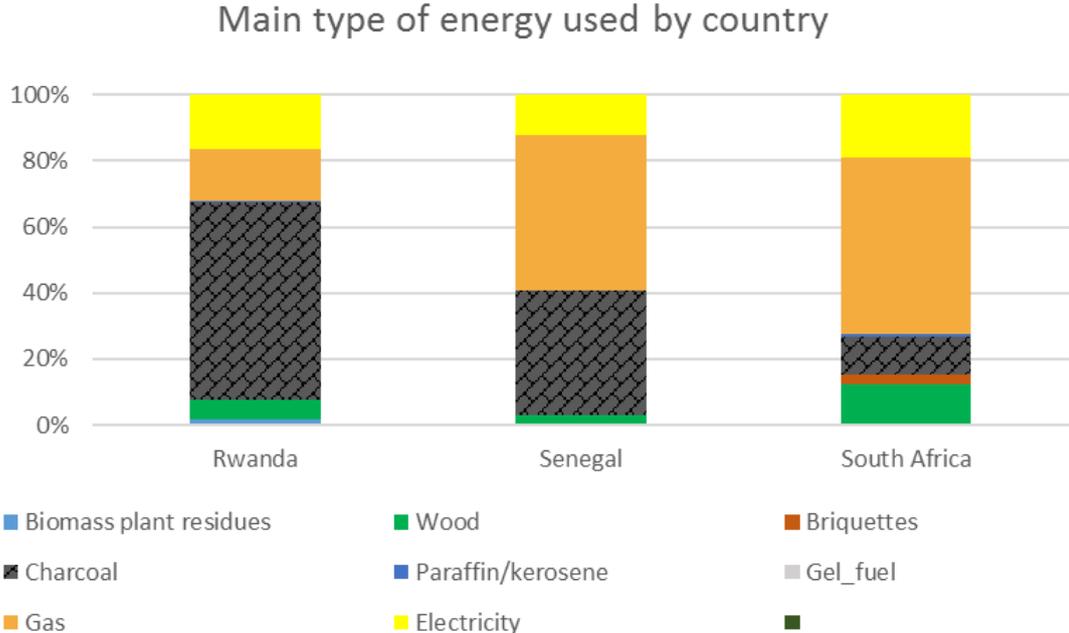
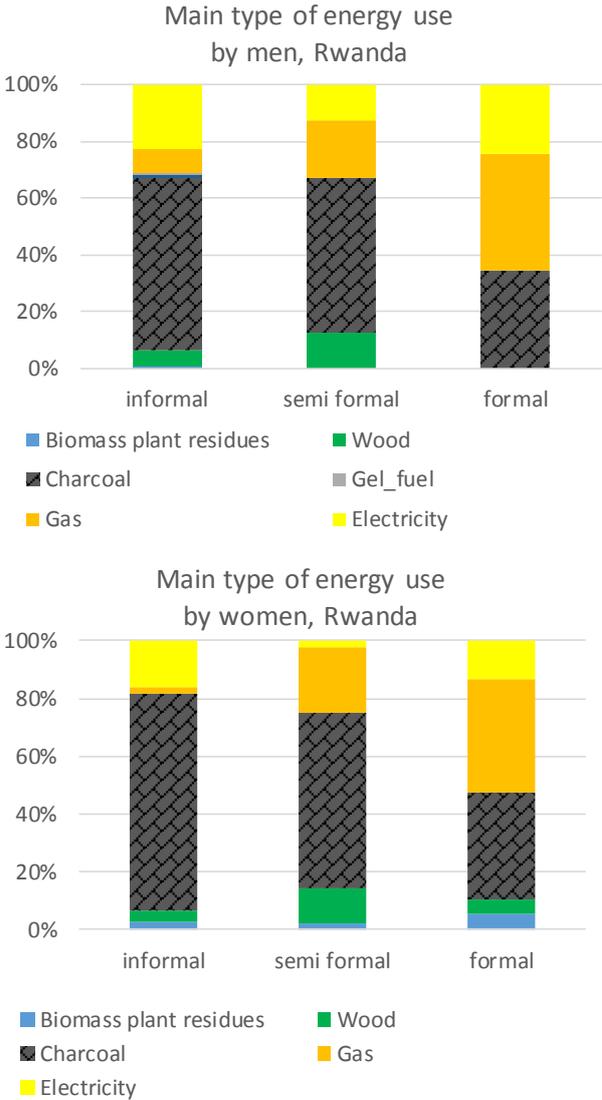


Figure 3.2 Main type of energy use by gender, Rwanda



With some 70% of respondents in South Africa using gas and electricity in their enterprises, the SFS sector in the country is at the forefront regarding the use of modern energy sources (MES); Rwanda ranks last among the three countries due to very limited use of natural gas.

Focussing more on the gender differences in each country, Figure 3.2 shows that **the gender differences for the type of fuels used in the SFS in Rwanda are small.** Charcoal is the main fuel for informal and semi-formal SFS, while charcoal and gas are equally distributed among formal businesses; electricity use is higher for men than for women, and in both cases, little used in semi-formal businesses. Women also use biomass plant residues, while men don't. Some men do venture into different fuels such as briquettes, gel fuel, and kerosene. **It is then evident more formal enterprises in Rwanda use gas and more informal enterprises use charcoal, regardless of gender.**

Figure 3.3: Main type of energy use by gender, Senegal

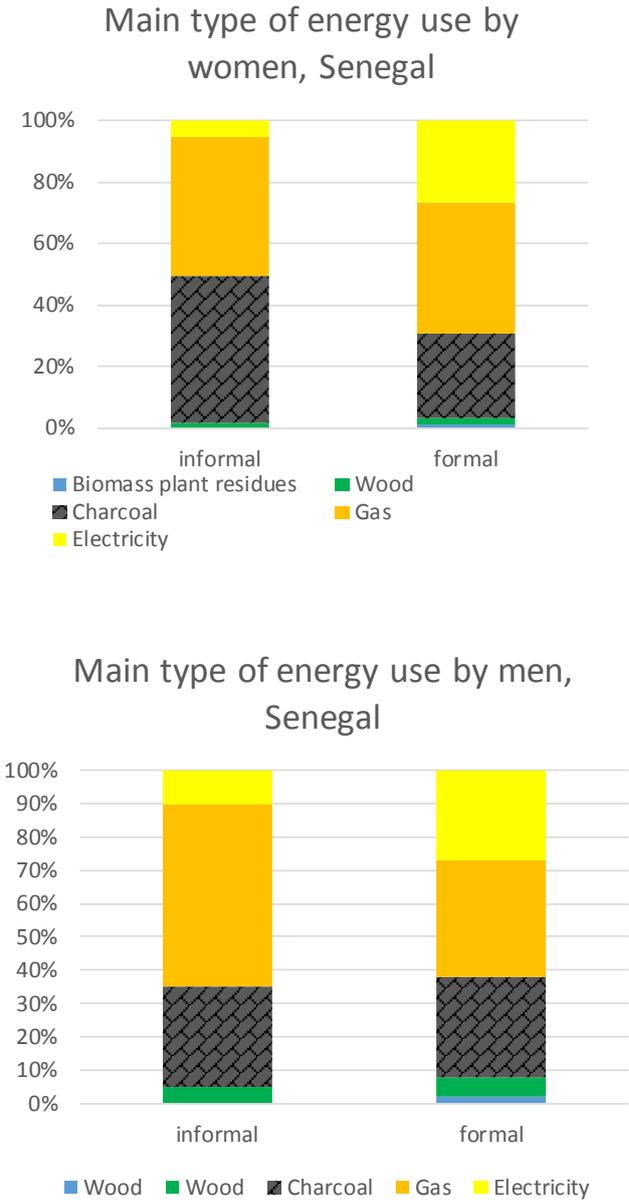


Figure 3.3 shows that gas is dominant and regardless of the type of business (formal or informal), the type and type of location. Among women in the informal sector, the gas use rate is 41% compared to 37% for men. In the formal sector, this rate of gas use is 58% for women and 33% for men. These figures confirm a high rate of gas penetration and use in Senegal in the informal food sector. Charcoal is the second largest source of energy used in the informal sector, 42% for women and 21% for men. Women use twice as much charcoal as men in the informal sector.

Figure 3.4: Sold products and energy used

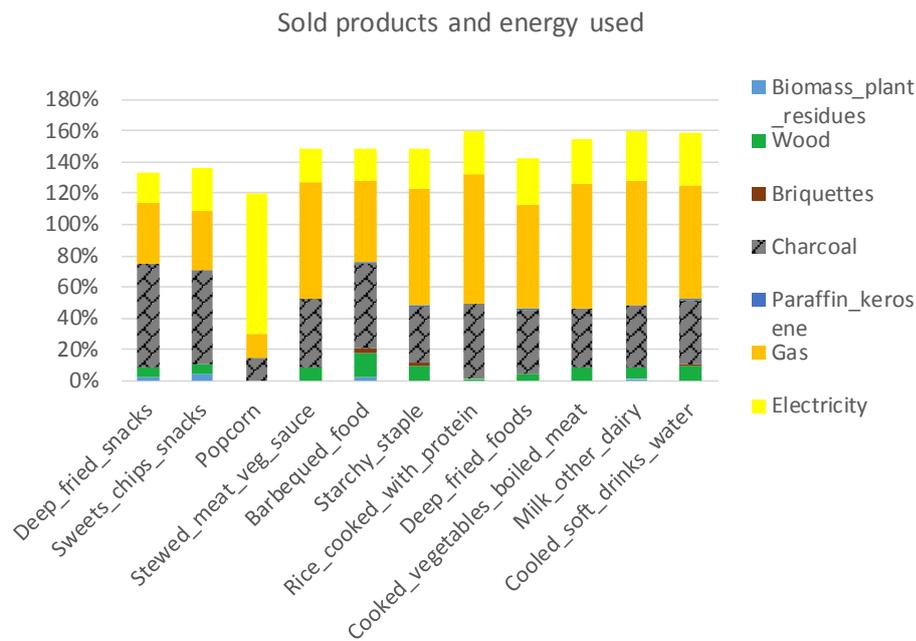


Figure 3.5: Main type of energy use by gender, South Africa

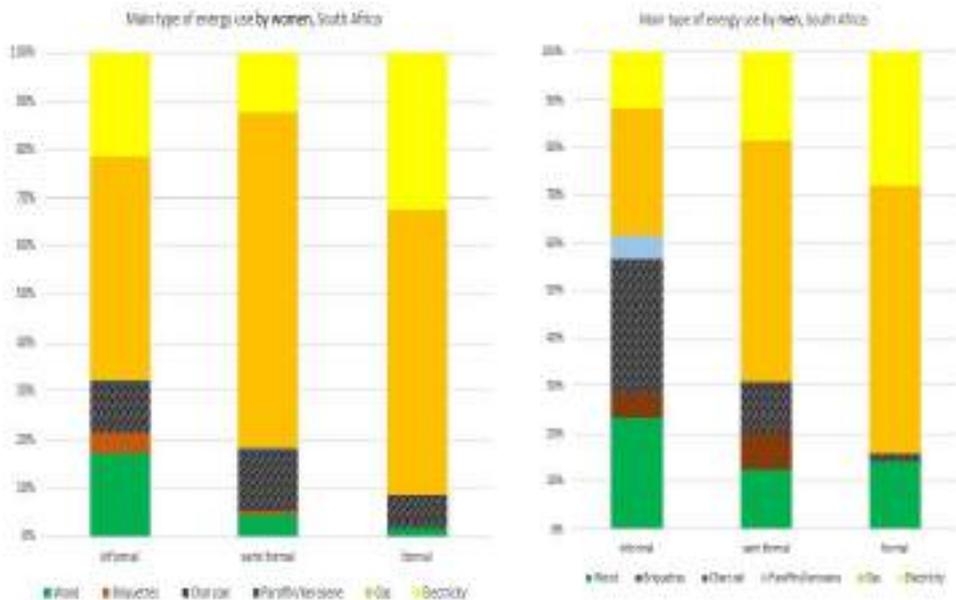
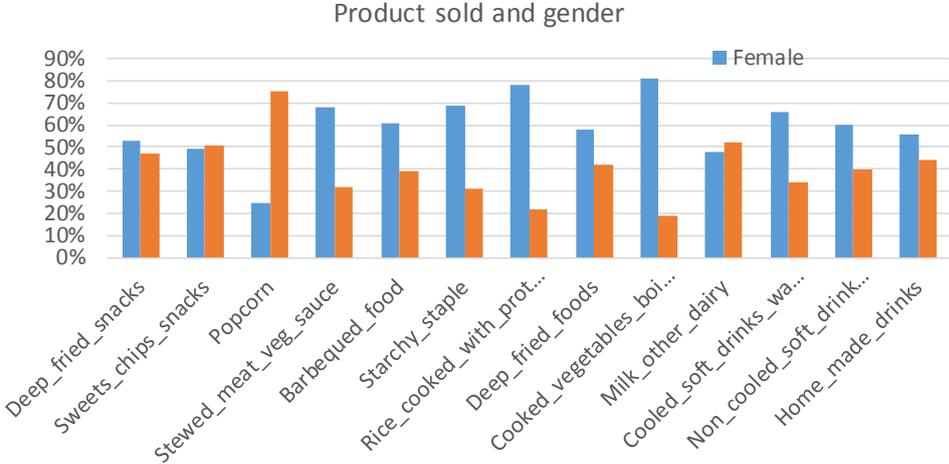


Figure 3.4 shows how across all countries the same food product can be cooked using different sources of energy. **Gas and charcoal are the main fuels across most products**, which confirms the findings above.

In South Africa (Figure 3.5), energy use is gendered, with women relying more on gas than men, who still use a considerable amount of charcoal and wood, especially in the informal sector. The use of modern energy sources – gas and electricity – increases with the formalisation of the business, for both men and women.

In most of the food product categories being prepared and sold, our sample shows that women tend to dominate, especially in preparation of full meals as opposed to snacks and milk processing where there is an equal dominance of female and male enterprise owners. Figure 3.6 also shows that there is a higher number of male-owned enterprises preparing popcorn than female-owned – 75% of enterprises selling popcorn are male owned enterprises compared to 25% owned by females.

Figure 3.6: Product sold and gender



3.2. Location, gender and energy use

It is assumed that there is a causal relationship between location (the type of structure, access to infrastructure, permission to use certain cooking energy services) and the cooking energy services used by enterprises. For example, a Senegalese enterprise owner (women, aged 55-64, no education, informal enterprise) gave the following reasons for using gas:

“I use gas because it is faster and cleaner. And given the very narrow space in my disposal, I could not use other energy sources such as charcoal and firewood, and I use exclusively the restaurant for cooking as I do not have a kitchen.”

An employee of a formal enterprise in Cape Town (07: single, male, aged 35-44, tertiary education) explained that “gas and electricity are the main sources of energy, and the way the building is structured does not allow them to use wood but electricity only.”

We asked enterprises which food preparation devices, equipment and appliances they use for cooking and thermal food processing; multiple responses were possible. The figures below show what percentage of enterprises use various energy services for cooking according to type of structure. In Rwanda, all enterprises with a mobile structure operating in a public space use only a coal stove for cooking and thermal food processing (100%). Multiple fuel use and variety of energy services is greatest among enterprises operating in a formal permanent structure such as a municipal market. Enterprises in formal structures use both traditional open fires, biomass stoves, and charcoal stoves as well as more modern energy services such as gas electric ovens and stoves. This confirms that the type of structure where an enterprise operates correlates with specific energy services used.

Figure 3.7 : Type of cooking energy service by type of structure in Rwanda

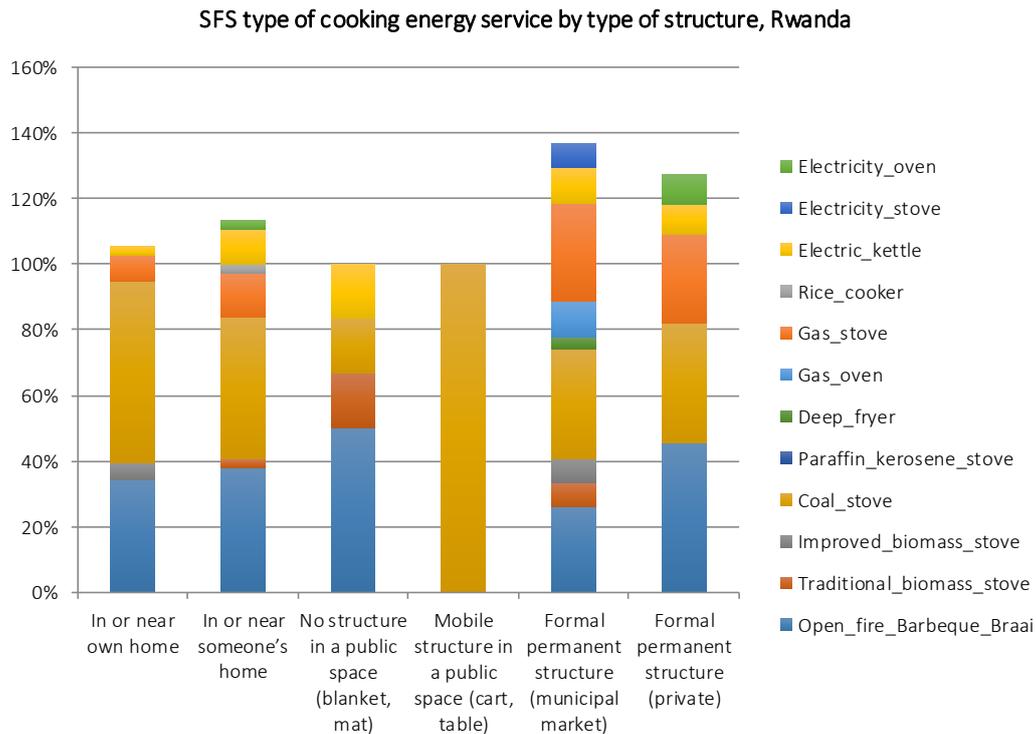
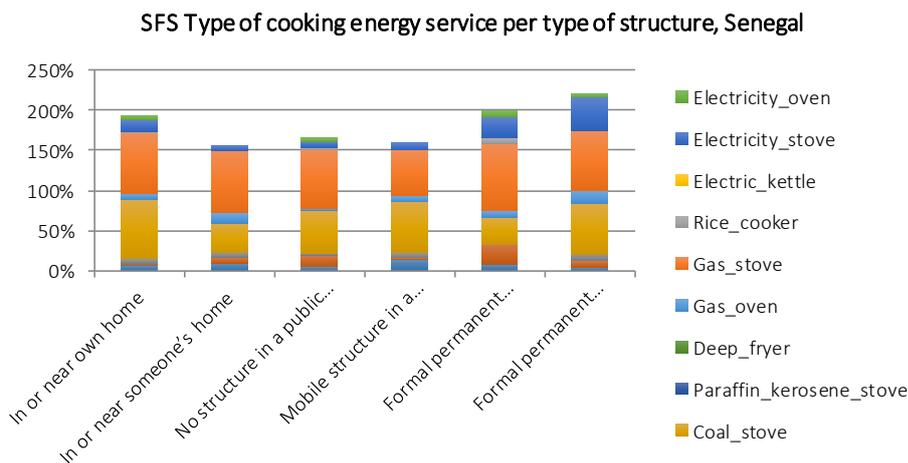
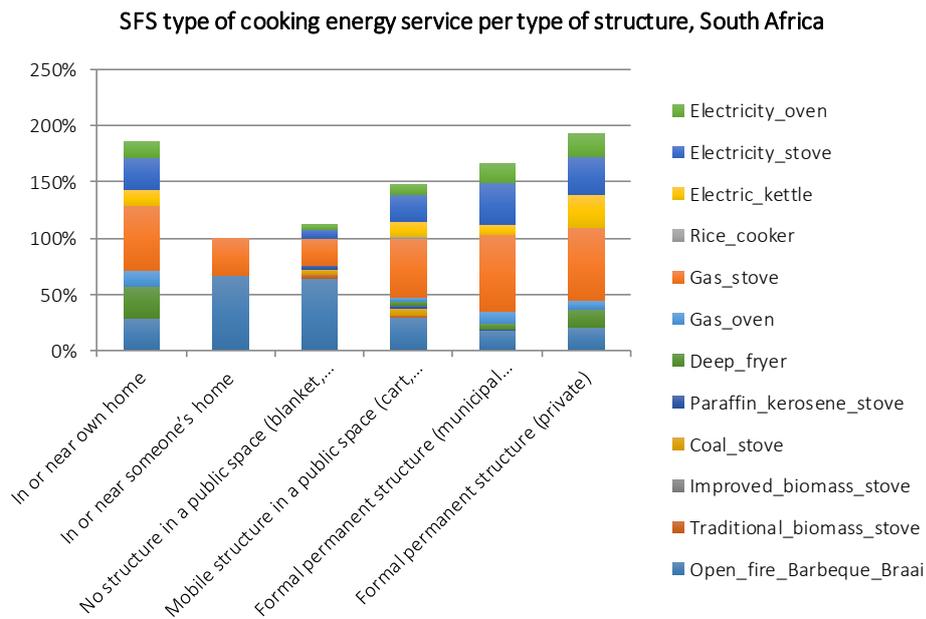


Figure 3.8 Type of cooking energy service by type of structure in Senegal



In Senegal the use of gas stoves and charcoal stoves is common among enterprises in different structures. Enterprises operating from a formal permanent structure or in or near their own home use slightly more multiple energy services (up to 2,5 different appliances on average). There does not seem to be very clear restrictions upon energy services according to type of structure in Senegal. It is common across all enterprises to use both traditional and modern energy services. In South Africa, multiple energy services (gas stoves, electric stoves, ovens and open fires) are common among all enterprises too. Even where it is not permitted to use open fires in public spaces, enterprises use these energy services. It is possible that regulations in these countries are not enforced as much as they are in Rwanda.

Figure 3.9 Type of cooking energy service by type of structure in South Africa



3.3. Multiple energy use

Multiple energy use can be observed in the SFS across the three countries of investigation.

When asked which energy sources they use in their businesses, and why, respondents provided multiple answers. On a total of 751 interviewees, our research shows 1,753 answers regarding the energy uses, or 2.33 energy fuels per respondent. In Senegal, this equals to 2.35 energy carriers per respondent; in South Africa 2.81, and in Rwanda 1.77, only.

When looking at gender differences, men tend to diversify their energy mix more than women. This is true for South Africa, with 2.69 sources per female compared to 3.26 for men; and Rwanda, 1.78 for female, 2.15 for men. One of the possible reasons being, as our findings show, men privilege the use of electricity over women, both in their businesses, and at home (Chapter 4); however, this is often used for ancillary services that are not strictly related to food processing, which continues being done with traditional sources of energy – charcoal above all, and/or gas. The addition of electricity in the energy mix, therefore, justifies the higher diversification of men over women, due to the higher uptake of electricity-based appliances.

While the use of multiple energy sources increases with increasing formalisation across the three countries, this is negligible and not significantly relevant.

3.4. Reasons for the most used energy sources, by country, level of formality and gender

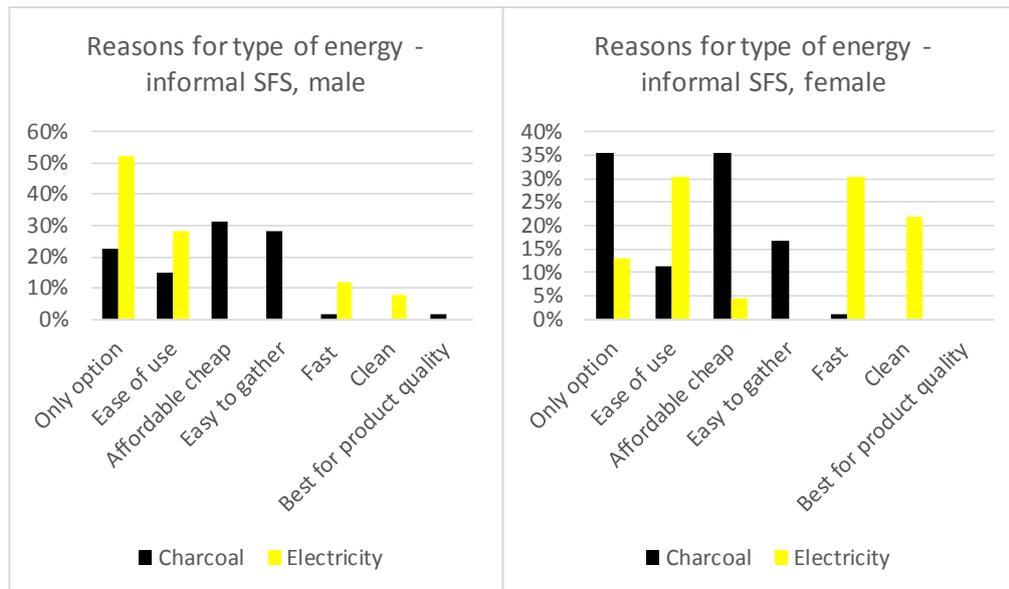
The following analysis focussed on the reasons behind the most-used traditional (charcoal, wood, biomass residues) and modern energy sources (electricity and gas) by country, level of formality and gender.

3.4.1 Rwanda

When asked to rank the 3 most important reasons to the question “Why do you use this energy source?”, **men and women in the informal street food sector in Rwanda agree that charcoal is affordable and cheap, the only**

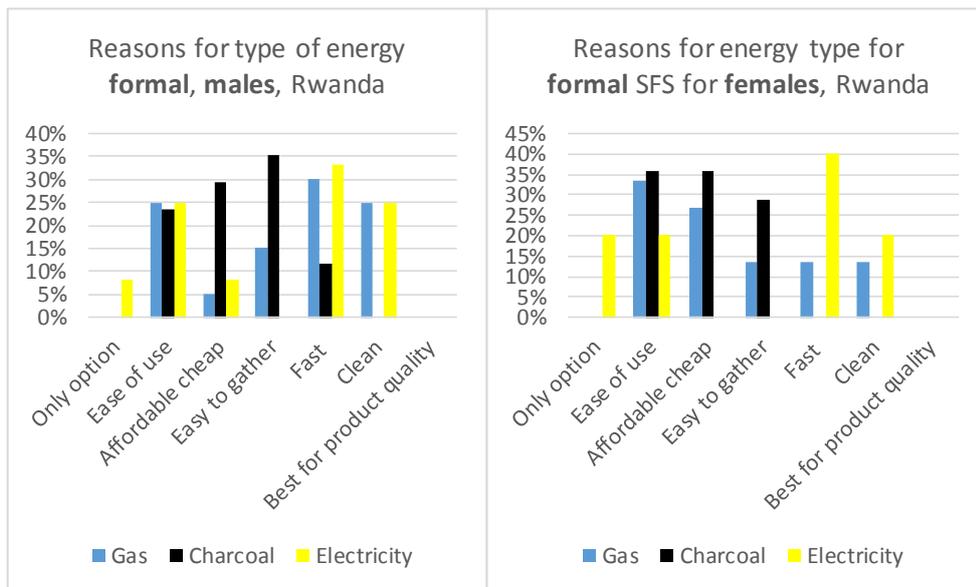
option and easiest to obtain and use; electricity is considered to be fast and clean, with no major differences between men and women (Figure 3.10).

Figure 3.10: Reasons for type of energy by gender, informal, Rwanda



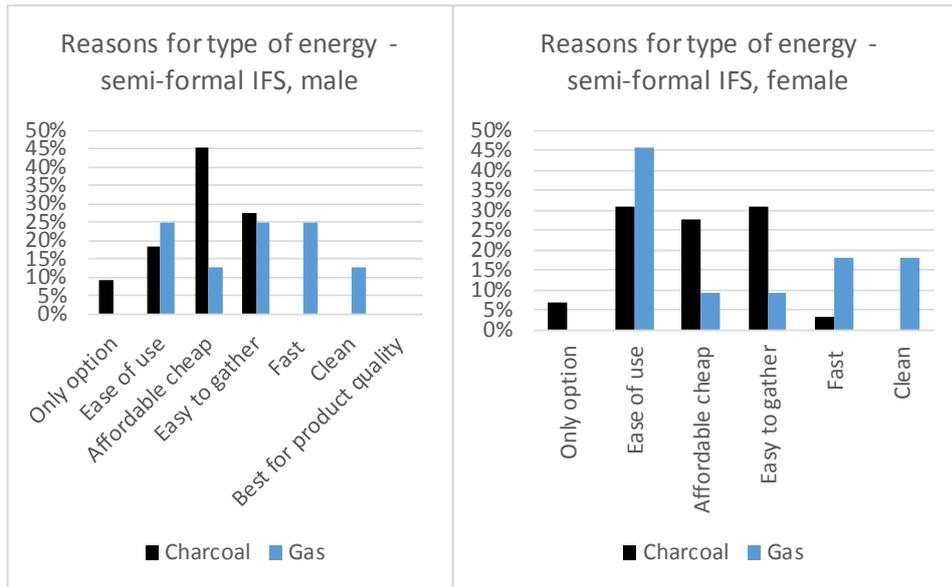
Figures 3.10 shows that both gas and electricity as modern energy sources are widely used by formal businesses in Rwanda. For formal businesses there are also no major gendered differences. **Unlike the more informal businesses, formal businesses find that electricity is the only option (presumably for specific energy services), even though charcoal is cheaper; electricity and gas are found to be cleaner than charcoal.**

Figure 3.11: Reasons for energy type by gender, formal, Rwanda



Semi-formal businesses in Rwanda start using gas as their second source of energy, after charcoal; electricity, on the contrary, is not much used. Charcoal becomes less often the “only option” compared to informal businesses, with gas being appreciated for its ease of use, availability, quickness and cleanness. Women, more than men, appreciate that gas and charcoal are easy to use, and that charcoal is easy to gather (see Figure 3.12).

Figure 3.12: Reasons for type of energy by gender, semi-formal, Rwanda

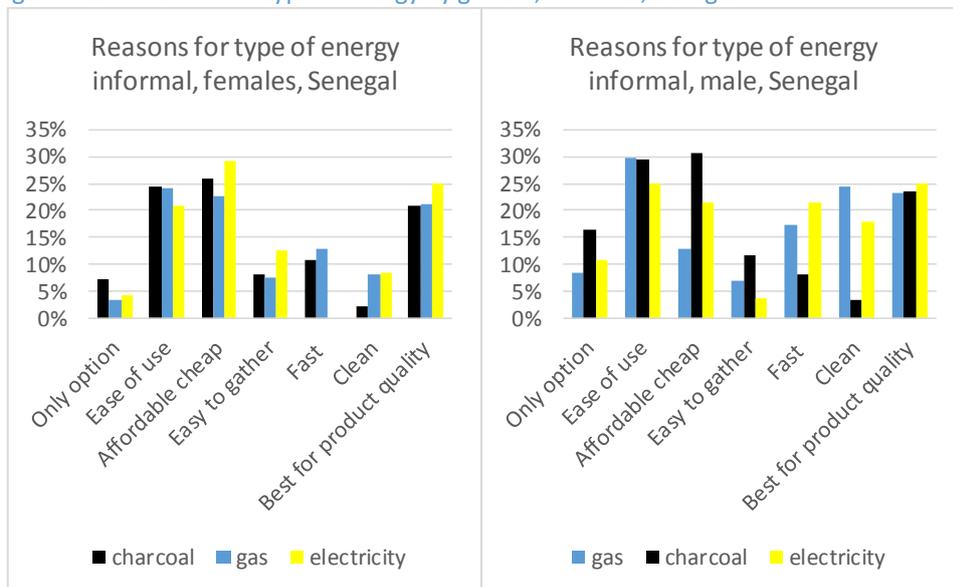


In Rwanda, informal and semi-formal enterprises predominantly use charcoal because it is affordable, easy to use and easy to gather. Formal enterprises also use charcoal for these reasons. Informal enterprises state more than others that using charcoal is the only option. Formal enterprises use a mix of electricity, gas and charcoal whereas only a few semi-formal enterprises use gas and informal enterprises do not use gas. Electricity and gas are considered to be clean and fast. There are no major differences among women and men’s preference for energy use other than women, slightly more than men, appreciate that gas and charcoal are easy to use and that charcoal is easy to gather.

3.4.2. Senegal

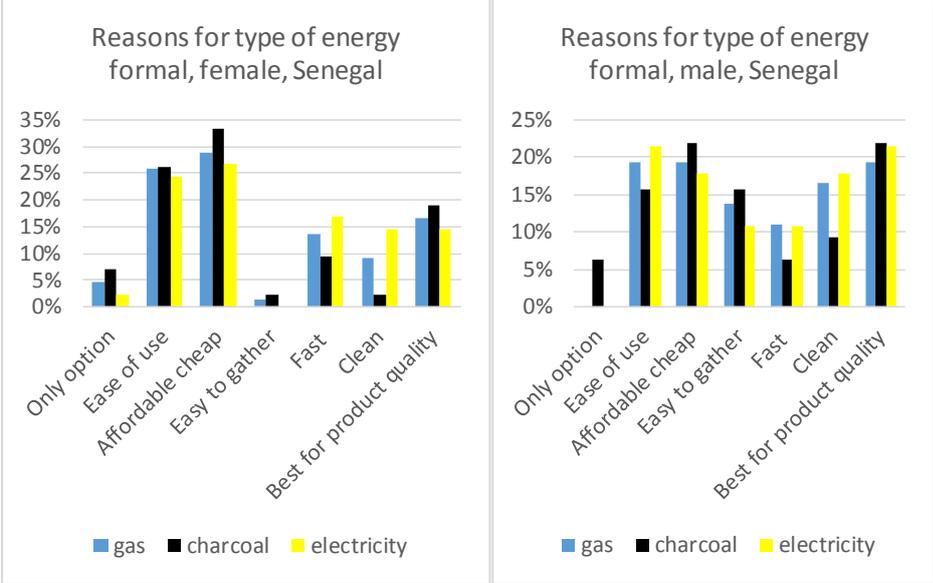
In Senegal, semi-formal SFS were not encountered. **The main gendered difference for informal SFS enterprises is that women prefer charcoal and men prefer gas**, and they prefer these for roughly the same reasons: ease of use, affordable and best for product (See Figure 3.13).

Figure 3.13: Reasons for type of energy by gender, informal, Senegal



As seen in Figure 3.14, **for formal SFS in Senegal, ease of use and affordability score high for men and women across each source.** However, men give relatively higher importance to cleanliness and product quality than women, as well as easiness to gather.

Figure 3.14: Reasons for energy type by gender, formal, Senegal



In Senegal, charcoal is the most common energy source used by both informal and formal enterprises. Not only do Senegalese enterprises find charcoal to be affordable and easy to use and easy to gather, formal and informal enterprises say that charcoal is best for product. Gas is preferred by all enterprises because it is easy to use, affordable, clean and best for product, however informal enterprises operated by women still prefer charcoal more than gas. The main difference in energy use patterns among formal and informal enterprises is that formal enterprises use electricity for a variety of reasons whereas only a small portion of informal enterprises use electricity at all.

3.4.3. South Africa

Figure 3.15 shows that there are some differences in energy use among men and women operating in the **informal street food sector in South Africa**, where women mainly use gas and electricity, and some wood, while men use charcoal, gas, and wood. For women, the main reasons are the speed of cooking and the ease of use and affordability, while men use their fuel for all reasons indicated, including product quality.

Figure 3.15: Reasons for energy type by gender, informal, South Africa

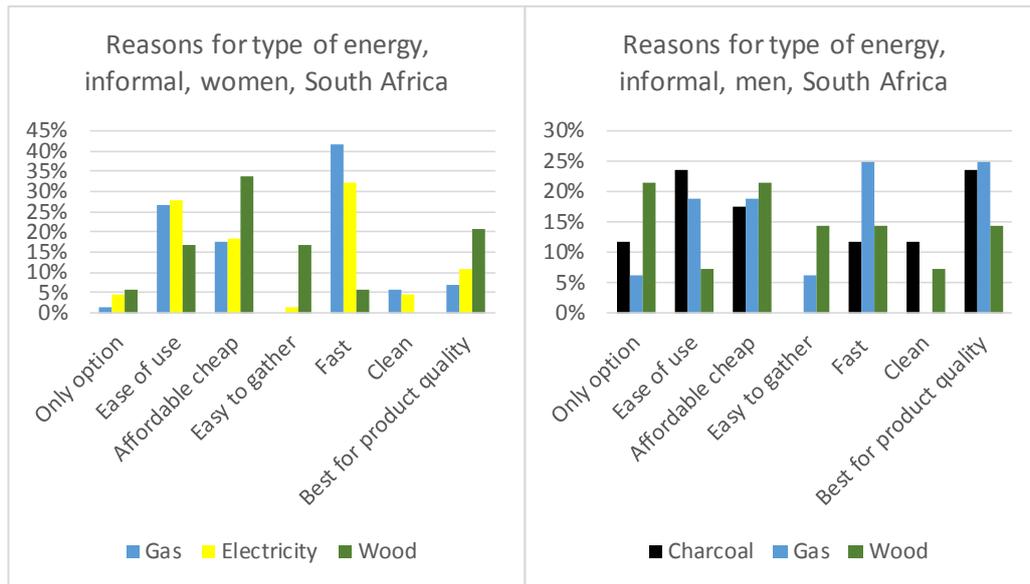
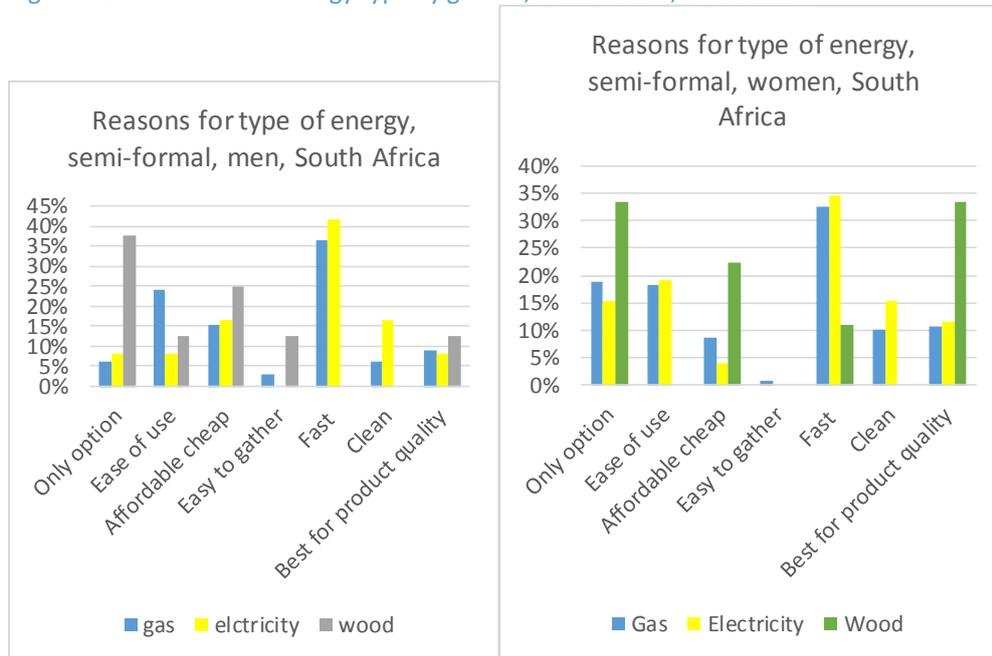


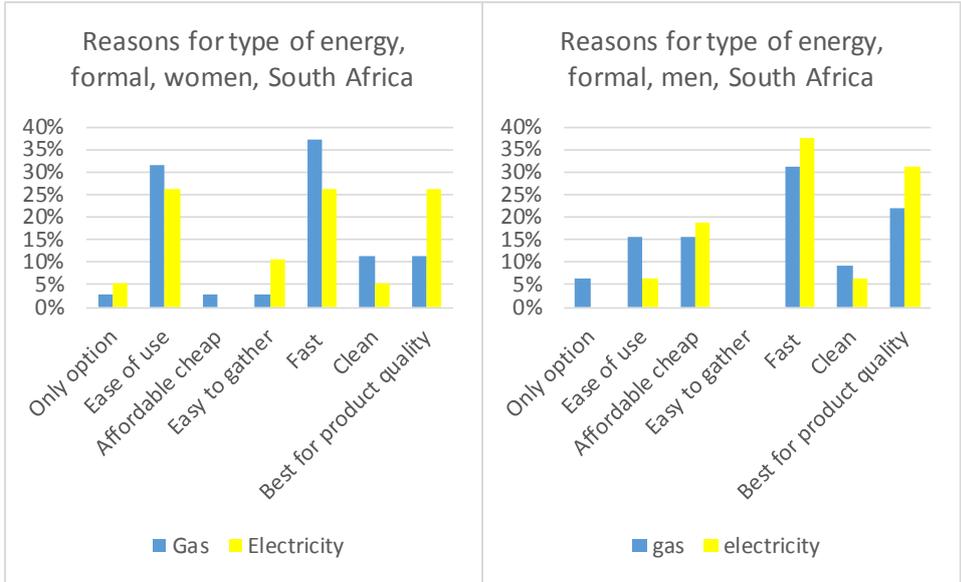
Figure 3.16 shows that in the semi-formal SFS in South Africa, there are some differences in the reasons that men and women give for using certain energy sources. The main energy type used are electricity and gas, and the reason is the speed of cooking and ease of use.

Figure 3.16: Reasons for energy type by gender, semi-formal, South Africa



For formal SFS, speed of cooking is the main reason for men and women alike, and both for those using gas or electricity. Women find ease of use important, and men product quality (Figure 3.17).

Figure 3.17: Reasons for type of energy by gender, formal, South Africa



In South Africa, biomass plant residues are not used, but wood is, and this is mostly among women running informal businesses, due to its ease of use, collection, and food quality (Figure 3.18).

Figure 3.18: Reasons for wood, South Africa



In South Africa, gas is the most common energy source used by informal, semi-formal and formal enterprises and is preferred by all because it is fast to use. This attribute appears to be the most important attribute for energy among South African enterprises. Women prefer gas mainly because it is easy to use and affordable, whereas men mention a number of different reasons for using gas. All enterprises also use electricity except for men operating informal enterprises. The preferences for electricity are varied and no major differences between genders emerge. Unlike Rwanda and Senegal, only men operating informal enterprises use charcoal, instead enterprises in South African SFS use wood. Using wood is most common among women operating informal enterprises and the stated preferences are affordability and best for product.

3.5. Reasons behind the use of electricity and gas, by country, level of formality and gender

Since one of the main research objectives is to understand factors impacting use of modern energy services in this sector, this chapter addressed specifically the use of electricity and gas in each country, according to different type of business, and gender.

In Rwanda, the drivers to use gas and electricity over other fuels are mainly related to the productivity, rather than the quality of the products itself. These fuels are perceived to make tasks easier and quicker, equally among women and men, across all levels of formality. Some formal businesses also claim improved quality of the products, and even fewer claim increase in product sales (Figure 3.19).

Figure 3.19: Reasons for gas and electricity, women, Rwanda

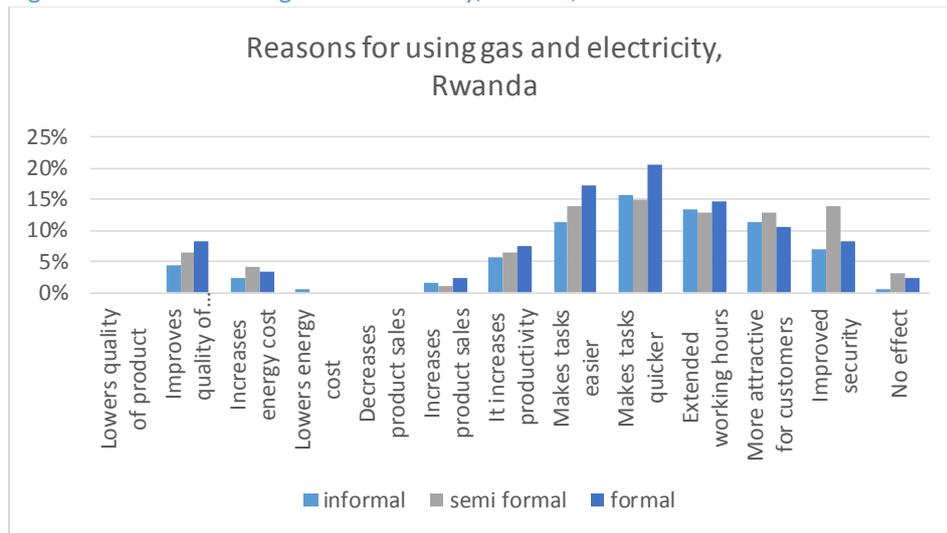
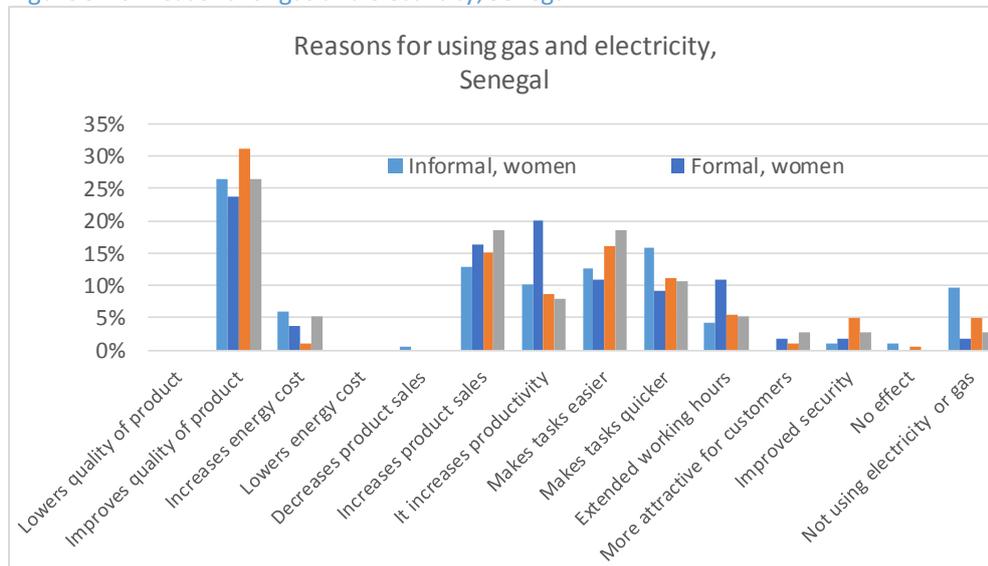


Figure 3.20 applies to Senegal, where answers differ consistently when compared to Rwanda. **The largest majority of respondents in Senegal, with the only exception of formal businesses run by women, claim gas and electricity would improve the quality of products and increase product sales.** This is equally perceived by men and women, with the only exception of formal businesses run by women, who say that these fuels would make tasks easier and quicker.

Figure 3.20: Reasons for gas and electricity, Senegal



In South Africa, the situation is between the one in Rwanda and Senegal: the most common answer is about making tasks easier and quicker – this is the case especially for fully formal and informal businesses, less so for semi-formal businesses, which claim gas and electricity would improve the quality of the products, both for women and men. Men are also the ones who see the least benefits from MES, like Senegal (Figures 3.21 and 3.22).

Figure 3.21: Reasons for gas and electricity, women, South Africa

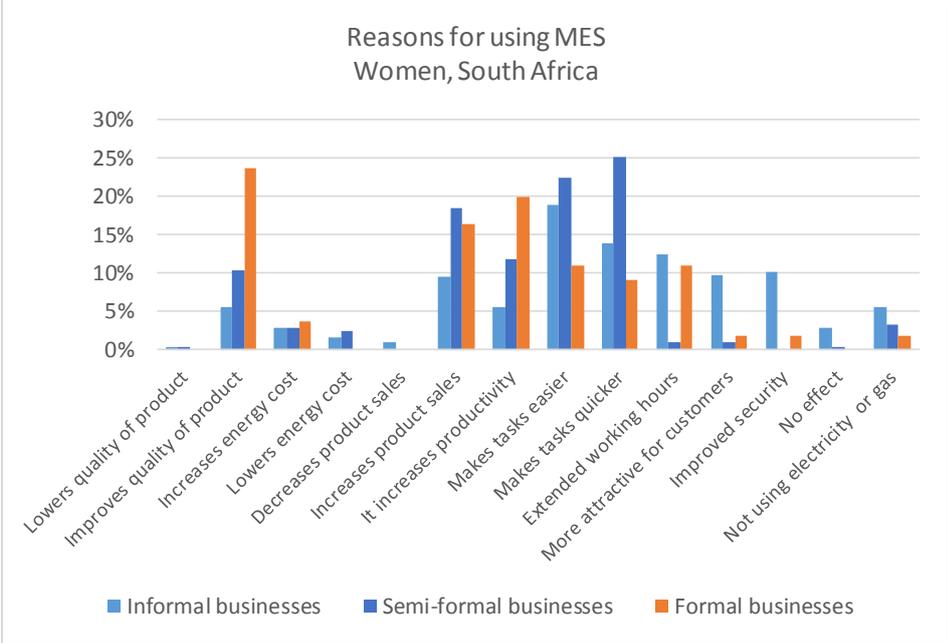
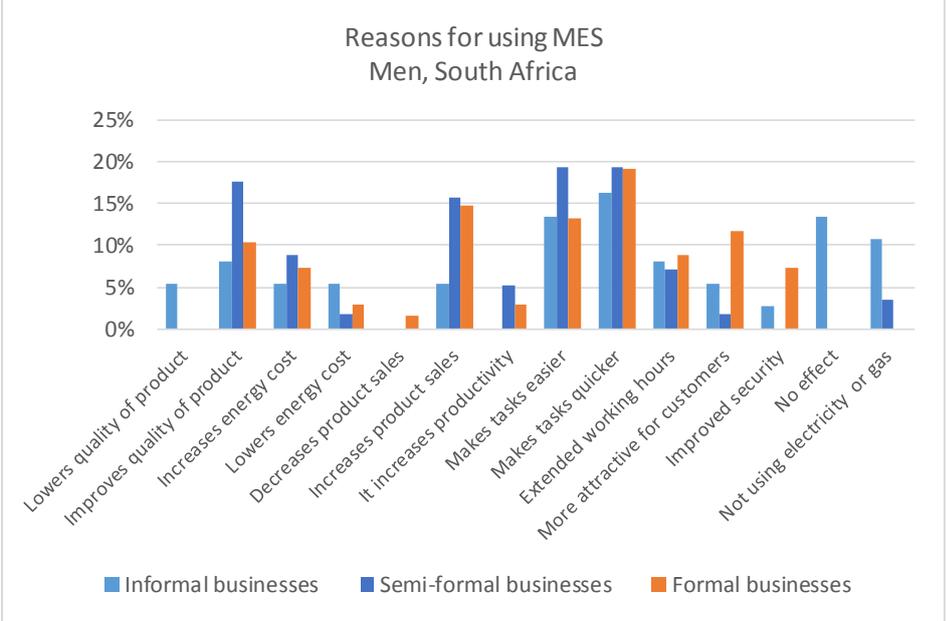


Figure 3.22: Reasons for gas and electricity, men, South Africa



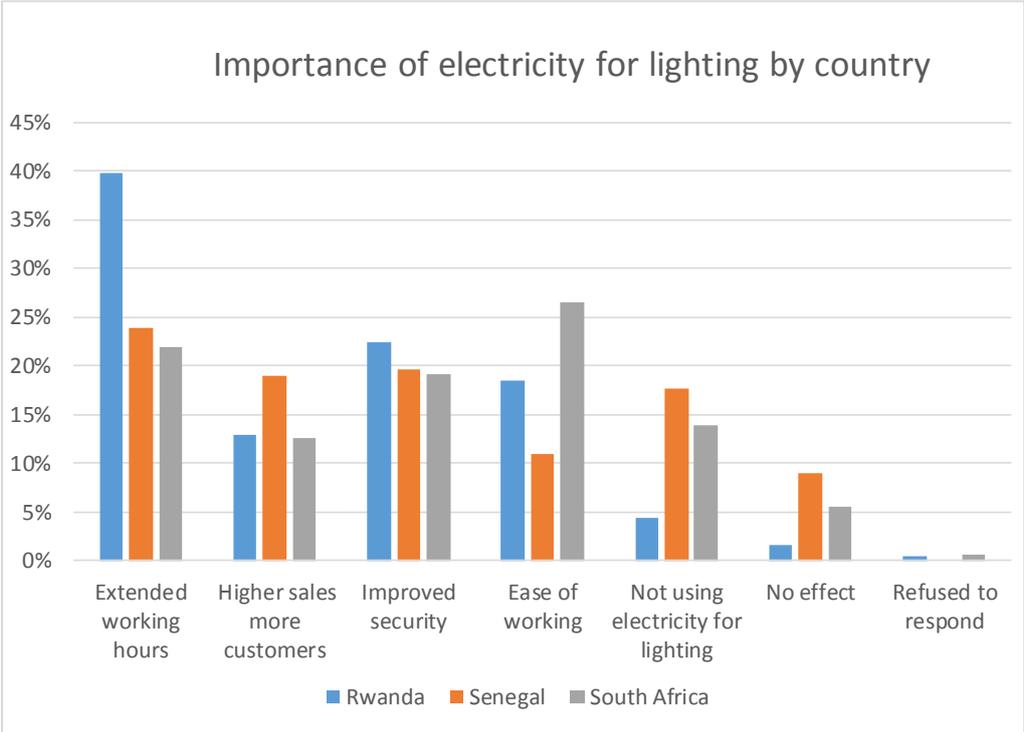
3.6. Electricity for Lighting

When asked to the users what the benefits of using electric lighting are, 49% mentioned improved security, and also 35% higher sales, being more attractive to customers, 45% ease of working, seeing what you are doing and even 70% extended working hours. Only 11% does not see any effect on the enterprise. Men mention more often than women: extended working hours (79%), women more often than men mention higher sales 69%, among the other benefits there are no gender differences, including improved security.

Among the non-users, the percentages for expected benefits are: improved security 35%, higher sales, being more attractive to customers 32%, ease of working, seeing what you are doing 32% and extended working hours 51%. Another 32% does not expect any effect at all.

As shown in Figure 3.23, **Rwanda is the country where lighting to extend working hours is most appreciated (40% of owners value electricity for this reason)**; that is also among the main reasons for the other countries, together with improved security. **In Senegal, 19% of owners value lighting for higher sales and more customers** which is slightly more than the other two countries, but only 11% claim that lighting benefits **the ease of working, which is the main value for South African owners (26%)**. Rwanda is the country where most people have lighting among the three. There are no major differences among the three countries value for lighting related to the gender of the owner nor the level of formality of the business.

Figure 3.23: Importance of electricity for lighting by country

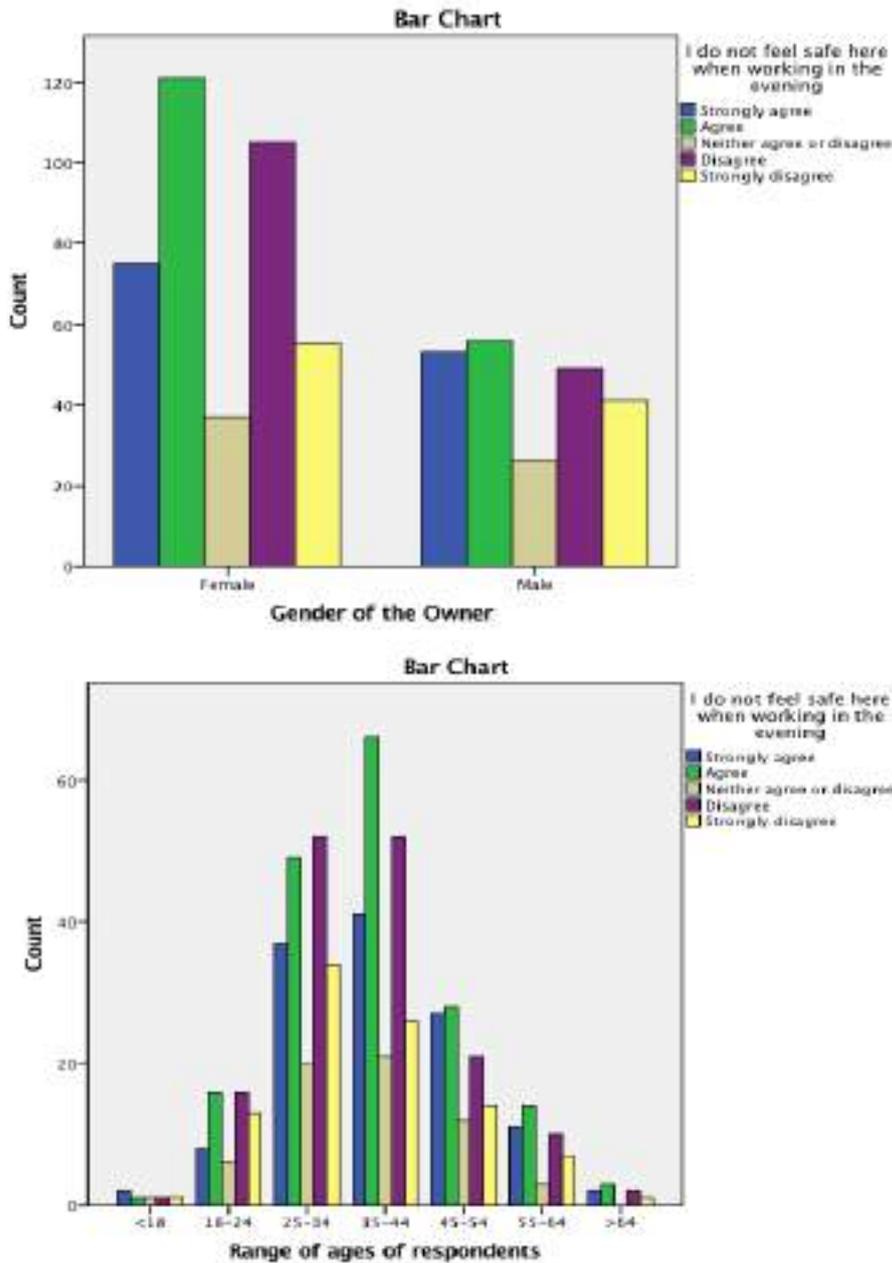


To assess whether electricity for lighting does or could have an impact upon feelings of safety when working during the evening, we asked respondents to respond to the following statement: “I do not feel safe when working in the evening”. As can be seen in the figure alongside, many owners do not feel safe while many others do; and this is mixed for men and women. There is no correlation between feelings of safety and gender (-.002, sig .967). This is a surprising result as we would have expected more women feeling unsafe at dark. However, it is clear that safety is a real and big issue for this sector.

Relating the feelings of unsafety in the evening and gender to other variables we see that women tend to feel a little bit safer when married (.087, sig .084, thus not very significant). Older people feel a bit more unsafe than younger people (Rho -.100, sig .012). Again, not a very strong relationship as the graph alongside shows. There is no relation with education, nor with size of the enterprise or in how far it is formal, semi-formal or informal.

Thus, it seems that indeed there is not much difference between women and men in feelings of safety in the evening.

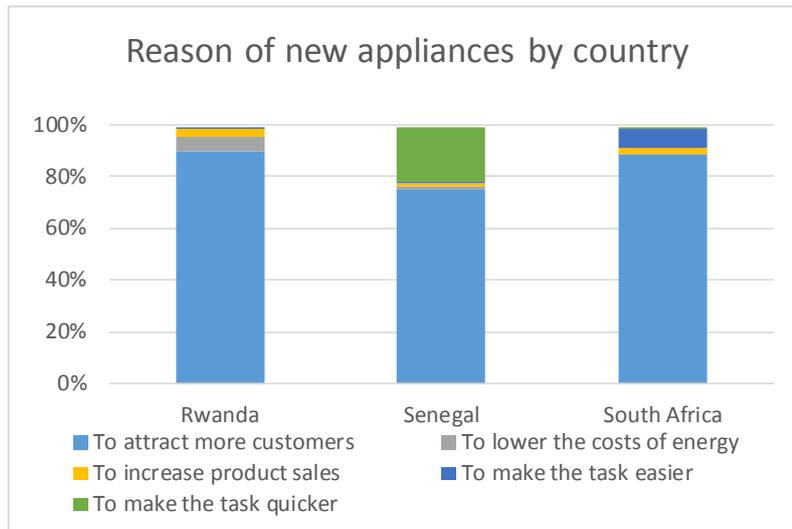
Figure 3.24: Feelings of safety when working at night



3.7. Type of appliances used and desired, by gender

In this paragraph we focus on the use of different appliances per country and per gender, and how the use of appliances that make use of modern energy sources could affect the level of business activity and attractiveness.

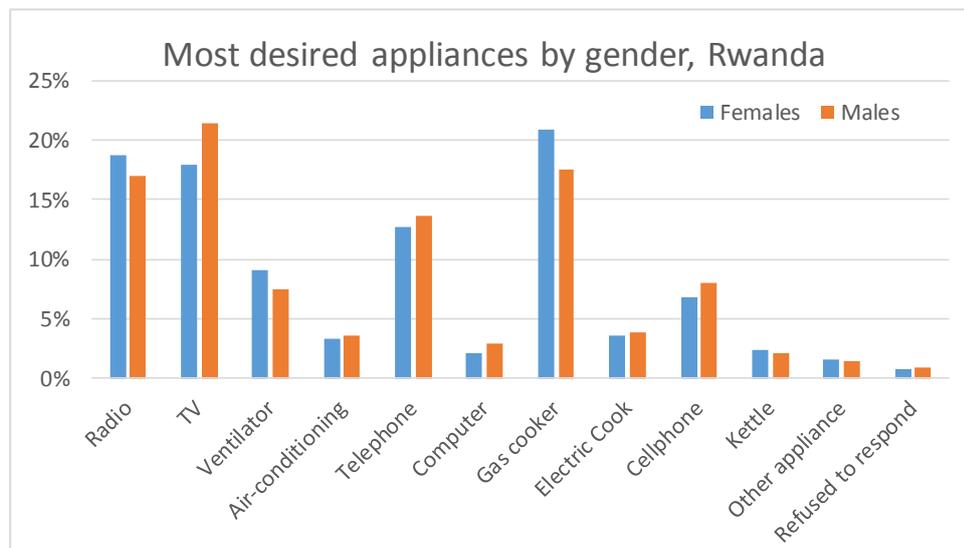
Figure 3.25: Reason of new appliances by country



As shown in Figure 3.25, **the main reason why SFS businesses want new appliances is to attract more customers, ranging from 77%-75% in Rwanda and Senegal, and 88% in South Africa.** In Senegal, some 20% prefer appliances that make their task quicker, while in South Africa, 8% chose them to make their task easier. Lowering the cost of the products was found important by 1-2% in Rwanda and Senegal, but not in South Africa.

The findings show how **all respondents are growth-oriented, and if for Senegal and South Africa this is also achieved by higher efficiency and simplicity in processes, in Rwanda this is achieved by lowering the energy costs.**

Figure 3.26: Most desired appliances by gender, Rwanda



When asked to give up to 3 answers to the question “*which appliances that you are not currently using would you most like to use in your enterprise if you had a choice?*”, **in Rwanda very few differences exist between men and women, with radios, TVs and gas cookers and telephones being the most desired appliances.** SFS traders

in Rwanda prefer gas or electric cookers first; semi-formal and formal SFS traders did not show a significant number of appliances wished for (see Figure 3.26)

Figure 3.27: Most desired appliance by gender, Senegal

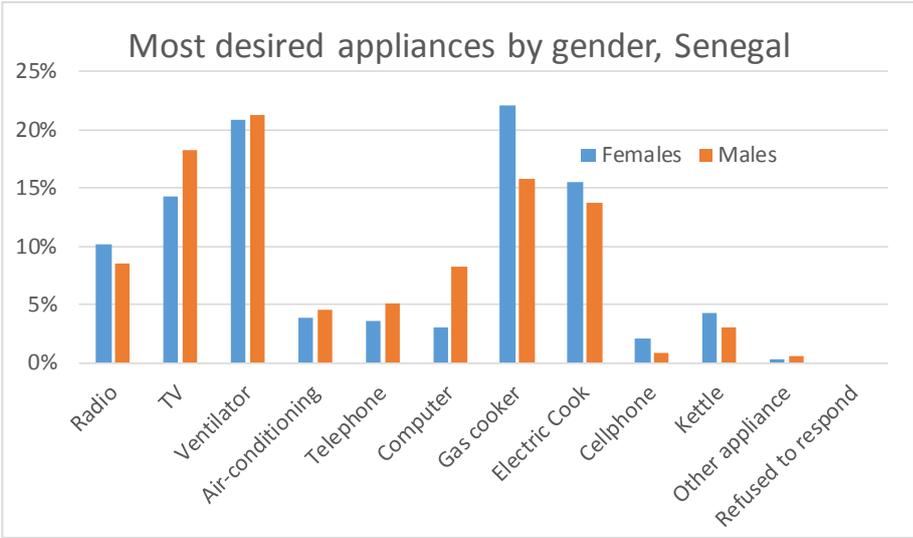
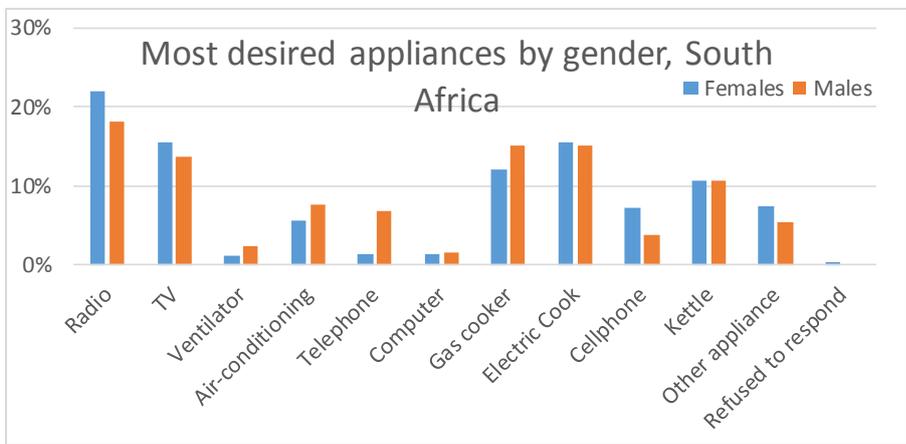


Figure 3.27 shows that **the appliances desired in Senegal are slightly different from the ones in Rwanda: fans / ventilators are requested more, since the climate is warmer than in Rwanda, and for women the priority is gas cookers.** TVs, electric cookers, and radio are the following priorities, for the informal SFS. Whereas, on the formal sector, the choices are more diverse, the enterprises desire electric cookers and ventilators (women) and electric cookers and computers (men).

Taking in consideration the appliances that makes the tasks easier or faster, SFS traders in Senegal desire similar appliances to SFS traders in Rwanda: first gas and electric cookers, second telephones or kettles.

In South Africa, informal and semi-formal SFS traders’ desire are: radio or TV; following by gas or electric cooker, kettle and air conditioning. The difference between men and women is small. For formal enterprises, radio, TV and air conditioning are the priority, while women are interested in electric cookers and men in gas cookers (see Figure 3.28)

Figure 3.28: Most desired appliance by gender, South Africa



Like in Rwanda and Senegal, informal SFS enterprises in South Africa have the greatest desire for new appliances, mainly gas and electric cookers, as well as kettles. Semi-formal SFS enterprises have similar responses but at lower priority, and formal SFS enterprises have the least number of desired appliances.

In general, **gas cookers are among the top desired appliances across the three countries, the main reason is to simplify and accelerate cooking tasks; in South Africa, electric cookers area also taken into consideration; as radios and TVs and fans (in Senegal).**

As shown in Figure 3.29, **in Rwanda, the main reason for the traders' energy choice is the speed of the preparation process**; this is valid for all types of enterprises, and is not gendered; the second reason is the ease of preparation, except for female-headed semi-formal businesses, who rank the quality of the product as second and the easiness as third; the third reason for the choice of energy source is the quality of the product. **In Senegal, the main reason for their energy choice is based on lowering energy costs**; easier tasks and improved quality are the second and third reason, respectively. **In South Africa, similar to Rwanda, it is all about quick processes** (see Figures 3.30 and 3.31).

Figure 3.29: Reasons for top energy choices, Rwanda

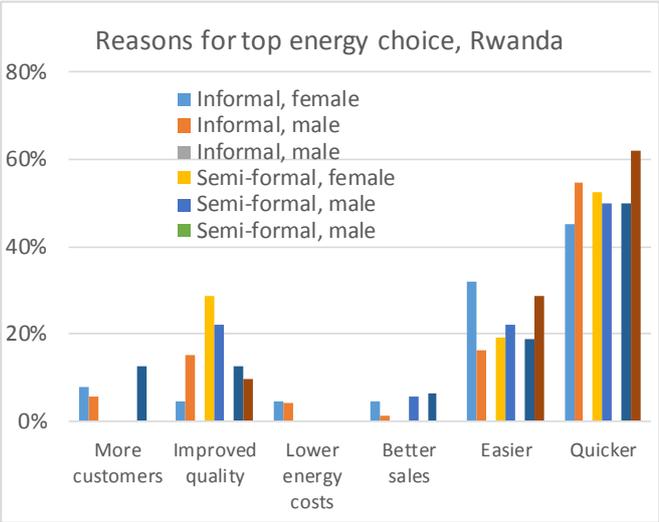


Figure 3.30: Reasons for top energy choices, Senegal

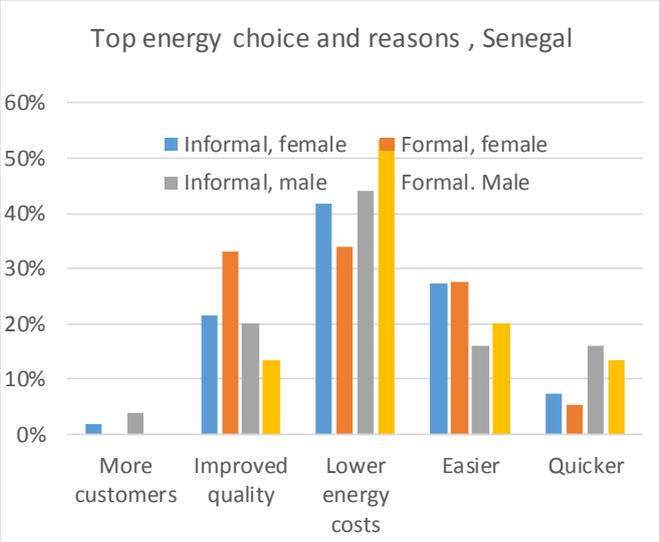
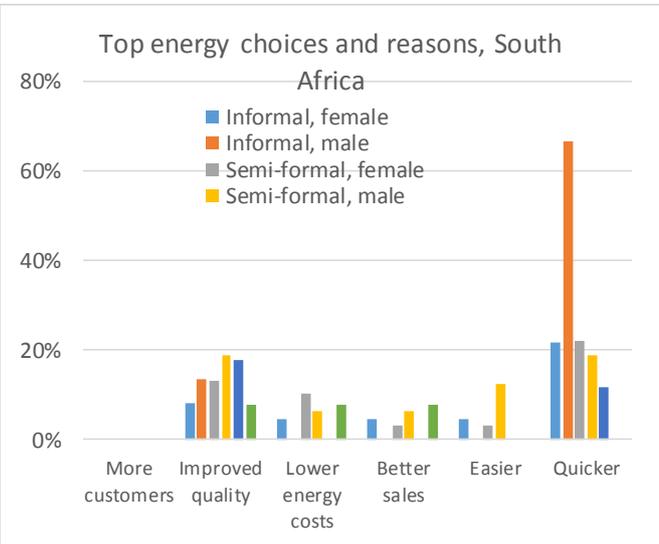


Figure 3.31: Reasons for top energy choices, South Africa



3.8. Conclusion/Summary

The three countries present diverse patterns regarding energy use in the street food sector, and these are affected by different degrees of business formalisation, and in the case of South Africa, by gender. This is also the country where as much as 70% of interviewees use electricity and/or gas for daily tasks, while in Rwanda we found a persisting heavy reliance on charcoal; Senegal is increasing its use of gas, but this very much related to the level of formalisation of the business, with informal ones still relying on charcoal and, in a small extent, wood among men.

Respondents use on average 2.33 energy carriers per business, with South African topping at 2.81, and Rwandan only at 1.77. The findings are slightly gendered, and men tend to diversify their energy mix more than women.

In all three countries, access to modern energy services is directly correlated to the level of formalisation of the business, while energy use is heavily gendered only in the case of South Africa, and in a good way: whilst more women make use of gas, men still rely on traditional fuels. This might also because women are more involved across the three countries in complex preparatory tasks for food, which need quicker and faster operations.

Most respondents reported that the main advantages of modern energy sources (gas and electricity) are that they are easier, quicker, faster and cleaner than traditional sources, such as charcoal and wood. The higher price of gas and electricity, however, remains a major barrier to the larger uptake of MES, especially among informal businesses. Speed of cooking is also correlated to higher productivity, rather than the final quality of the products itself: this is true especially for South Africa and Rwanda, with some exception for Senegal Electricity is considered important for the powering of ancillary services, such as TVs and radios, rather than for food-related activities.

Whereas access to modern energy services were considered by respondents to be instrumental in increasing productivity, modern appliances were considered to increase the attractiveness of the business and attract more customers: this is true for more than three fourth of respondent, regardless the gender, the level of formality, or the country. This answer shows a strong commitment and willingness to grow by most respondents.

Rwanda showed very few differences between men and women when it comes to the desired appliances, in most cases being radios, TVs and gas cookers. Senegal introduced also fans, to make up for warmer climate; South Africa introduced more electricity-based appliances, such as electric stoves, kettles and air conditioning systems.

The use of multiple energy carriers in the SFS - regardless the country, gender, or level of formalisation, is evident, and it is probably here to stay. Diversification is typical of sectors in which poor people represent a major share; it is a risk mitigation strategy, and it is usually driven by a mix of technical, economic and social factors, such as affordability, convenience, and availability of resources. Energy use in the SFS is no exception, also given its strong correlations with cultural and social norms that affect final preferences for energy carriers for specific food transformation processes.

The study shows that, across the three countries, the market is already heading towards a greater uptake of energy modern services, and this is for both women and men. National and local governments should support this trend, which is mostly demand-driven, while being very much aware of the timing necessary for cultural norms to adapt, without imposing unrealistic goals towards "one-fuel" policies. Instead a gradual approach to (partial) fuel switching, and the strengthening and inclusion of supply chains in a broader inclusive market system approach should be sought.

As discussed later in the report regarding the cooking energy at household level, we find there are some major differences between this and productive use of cooking energy in businesses. It is therefore crucial that policy makers do not treat the cooking energy sector as a whole, but understand the opportunities offered by targeting

the two different sub-sectors separately, and the permeability that could allow the transferability of best practices.

Finally, it needs to be understood that energy use is not only about fuels or energy carriers, but also about the appliances that make use of energy, and that can strengthen businesses competitiveness. Efforts towards the modernisation of the energy mix of final users should tap on this opportunity, especially in the sphere of productive use of energy, by increasing the uptake of modern appliances, achieving both modernisation and empowerment at the same time.

4. HOME ENERGY

This chapter focuses on energy use at home whereby we asked our respondents composed of employees and owners of the Street Food Sector enterprises. This explores the idea that many street foods are prepared or stored at home (some 37% of our interviewees traded either from their own homes or from a neighbour's home). The first part of this chapter focuses on the South African Free Basic Electricity (FBE) policy and the questions we asked the respondents in South Africa about this subsidy. We chose to ask questions about this subsidy in South Africa only because this is the only country in our sample that is implementing such a subsidy at a large scale to poor households that qualify to receive such subsidies. In Senegal, the LPG equipment and fuel subsidies that had been implemented for 20 years were withdrawn in 2009 which has led households to rely more on charcoal whereby in 2014 it was found that up to 83 % of the rural population relies on solid fuels (Practical Action, 2014). In Rwanda energy subsidies are implemented to encourage supply of modern energy sources and services and no subsidies are directly provided to households (AfDB, 2013). One of the main aims for asking about this subsidy was to find out if women and men operating in the Street Food Sector enterprises also benefit from this energy subsidy and whether they use it to benefit their enterprise. The results from this analysis on energy subsidies is also used for the collaboration study between our research team and 'RA3 – Political economy of energy sector dynamics' whereby we compare the implementation and impacts of energy subsidies and analyse gender implications between South Africa, Nepal and India.

The second part of this chapter focuses on energy use at home and looks at our empirical data from all three countries. In this section we focus on energy use where we note that there is multiple energy use by households as they use modern and traditional sources of energy.

4.1. Background - Free Basic Electricity policy

In 2003, the Department of Minerals and Energy published the Electricity Basic Support Services Tariff (EBSST) policy, which stated that "the provision of free basic services is primarily a social welfare function which is the responsibility of government" (DME 2003: 6). For purposes of this paper we will refer to the EBSST as free basic electricity (FBE) henceforth. One of the main reasons for establishing this policy was that, through studies on energy affordability amongst the poor in SA, the government realized that electrified households, both in the urban and rural areas could not afford to use their electricity supply optimally (DME 2003; ERC 2002; ERC 2003).

In order to provide households with the means to use electricity for some basic needs, the DME decided that "provision of 50 kWh of grid electricity per month to all households with concomitant blocked or stepped tariffs for electricity consumption beyond 50 kWh to mitigate the cost implication of the free basic electricity provided" would assist poor households and fulfil the policy goals (DME 2003: 6; Mohlakoana 2014). The reasons behind this decision are listed as follows in the policy document:

- (i) "56% of households in South Africa connected to the national grid consume on average less than 50kWh of electricity per month;
- (ii) 50kWh per month is considered adequate electrical energy to meet the needs for lighting, media access and limited water-heating and basic ironing (or basic cooking) for a poor household;
- (iii) The level of 50kWh had been spoken of generally at national level and had been accepted as a norm in respect to free basic electricity. This quantity has achieved widespread political and community acceptance and expectation; and
- (iv) The utility of this 50kWh can be increased by using efficiency lighting interventions and other energy saving initiatives" (DME 2003: 8-9).

In 2012, the South African Local Government Association (SALGA) indicated that of the 278 municipalities in the country, 243 have signed a formal free basic electricity provision with Eskom (SALGA: 2012) which indicates that a large number of households benefit from this subsidy (Mohlakoana 2014). Over the years, depending on each municipality's budget and the resources they provide for their indigent households, some municipalities have increased the amount of FBE per households per month (Eskom 2016)¹⁰. Both customers with pre-paid and conventional meters are able to access these free units as long as their total monthly electricity consumption does not exceed a certain number of units, as per limitation by the local municipality. Each municipality sets its own regulations with regards to the distribution of free basic electricity. If a household is considered to be a high consumer, it is excluded from receiving FBE on the grounds that it can afford to spend more on electricity, unlike the indigent households. Some municipalities do not provide FBE to households that can afford to purchase between 200 to 400 kWh per month without a subsidy – these households are automatically excluded from receiving FBE. Some critics of the FBE policy see the supply of limited units as the governments' "minimalist understanding of needs" (Ruiters 2009: 251) which in some ways ignores the facts that most poor households consume little electricity because of the "apartheid legacy, unemployment and a produced inability to consume"(ibid). It is also worth noting that consuming less than 400kWh per month may not reflect a state of poverty but the lack of need for more electricity consumption, which may be due to a small household size (Mohlakoana 2014). On the other hand, an impoverished household with more occupants will have more energy needs, which may be beyond the 400kWh, but this may prevent them from accessing the FBE.

After the roll-out of the FBE policy, a study (ERC 2003) revealed that low-income households did indeed benefit from the free electricity units provided to them. According to the report, the households benefitted as follows:

1. Households were using more electricity for lighting [than they did before the scheme]
2. The households' energy expenditure was significantly reduced and this was not only for electricity but also for other energy sources used such as paraffin
3. Households reported that that the free electricity allowed them to spend their money on other household priorities such as food. The free electricity also had other benefits for household members such as children being able to use electricity lighting for longer than paraffin lamps to do their school work, and for household members using appliances such as radio and television for longer
4. The monitored consumption of electricity by households in the study showed an increase from an average of 29kWh to 60kWh per month after the implementation of the FBE policy. (ERC 2003: 4-5)

In South Africa, the government provides electricity subsidies to indigent households. For purposes of our research study, we wanted to find out if enterprises in the food sector use these subsidies to supplement their enterprise energy use. Since some of the informal enterprises in the street food sector are operated from home or in premises close to home, it is expected that energy use for the business is interlinked with energy use at home.

¹⁰ Eskom. Free Basic Electricity. <http://www.eskom.co.za/news/Pages/Apr18.aspx>. Accessed 27-09-2017.

4.2. Data analysis

From our South African sample of 271 enterprises, 159 (nearly 60%) reported that they receive free basic electricity for their energy use at home – this means they are considered to be indigent households as per the Free Basic Electricity policy and were low income earners and considered low consumption users of electricity.

Figure 4.1: Respondents receiving Free Basic Energy subsidies in SA

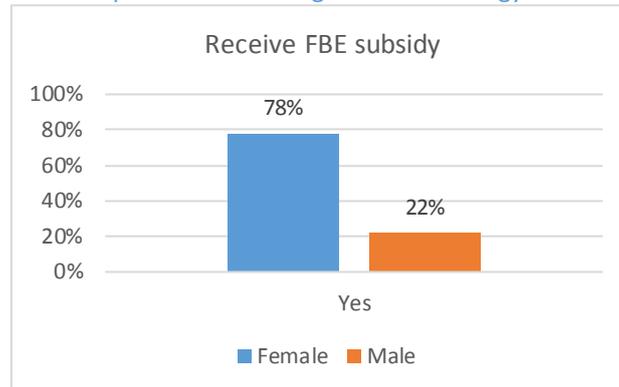
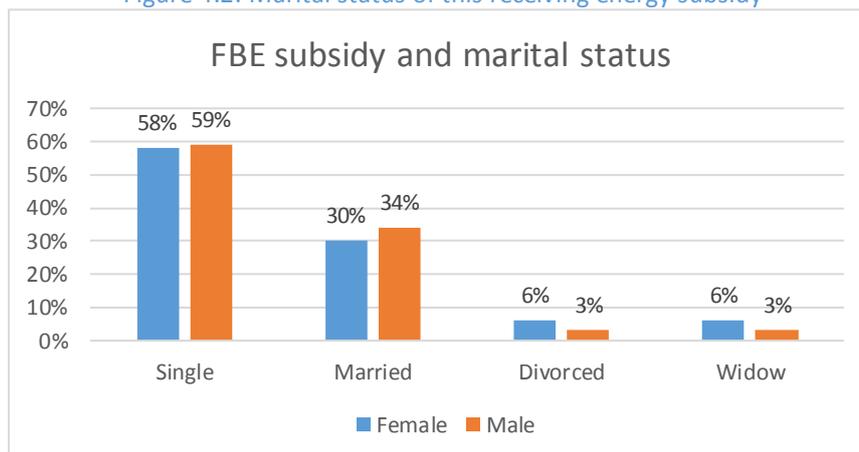


Figure 4.1 shows that, of those receiving the electricity subsidy, 78% of them are female and 22% are male. This number indicates that more females take the opportunity to use the free electricity for their businesses than men do. Use of free electricity at home may be in the form of refrigerating leftover food, using equipment such as ovens or processing appliances that they do not have access to on-site where they conduct their business.

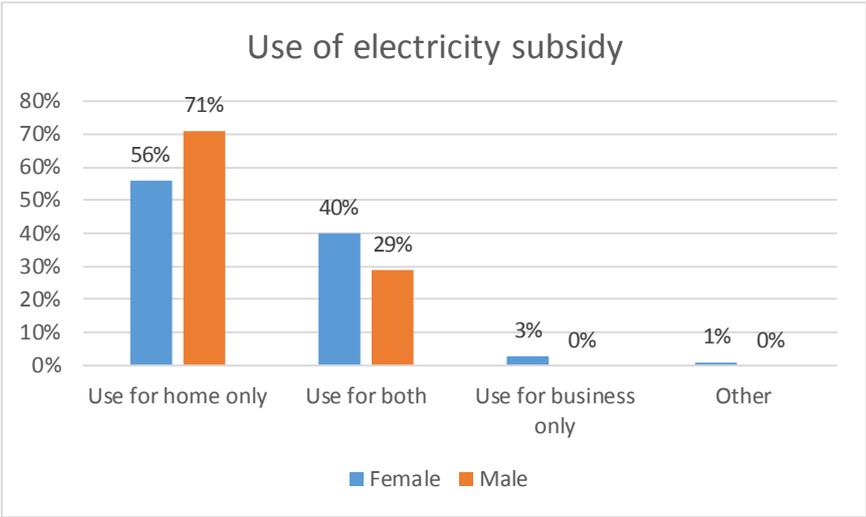
We used the marital status variable to determine if those receiving the FBE subsidies in the South African sample are partnered or not – see Figure 4.2. The reason for this is to verify that despite the marital status, there are more female respondents participating in the street food sector and receiving FBE than their male counterparts.

Figure 4.2: Marital status of this receiving energy subsidy



Our sample shows that more male respondents (71%) use the FBE subsidy for home use only compared to the female respondents (56%) – see Figure 4.3

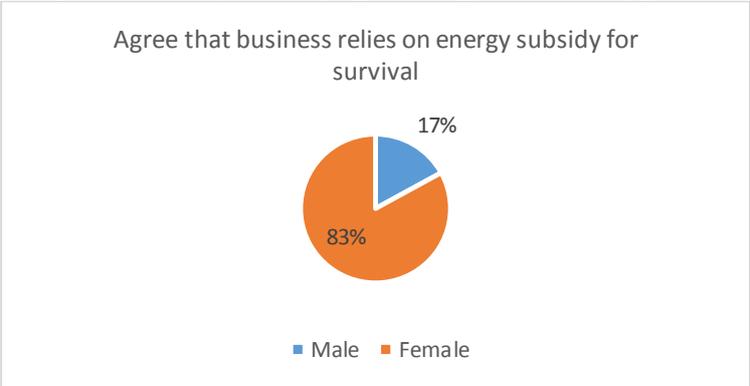
Figure 4.3: Use of energy subsidies by respondents



Out of the 136 respondents, 40% of female respondents use electricity subsidy for both home and business. The data also shows that 50 out of 136 respondents receiving free electricity subsidies, were actually encouraged to start their business because of the energy subsidy they receive. Of those that said ‘yes – energy subsidies encouraged them to start food businesses’, 74% are women while only 26% are male. Moreover, 38% of those who receive this electricity subsidy, agreed that their enterprises rely on this subsidy to survive. We can therefore, deduct from this that, to some extent, access to modern energy such as electricity in this case leads to empowerment in a form decision-making to start a business.

Of the 136 businesses that receive energy subsidies, we posed the statement ‘your business relies on the energy subsidy in order to survive’, where they selected one of the five answers ranging from ‘strongly agree’ to ‘strongly disagree’. There were 47 respondents that ‘agreed’ that their businesses relied on energy subsidies to survive and 83% of them were female, as shown in Figure 4.4.

Figure 4.4: Enterprises relying on energy subsidies, by gender

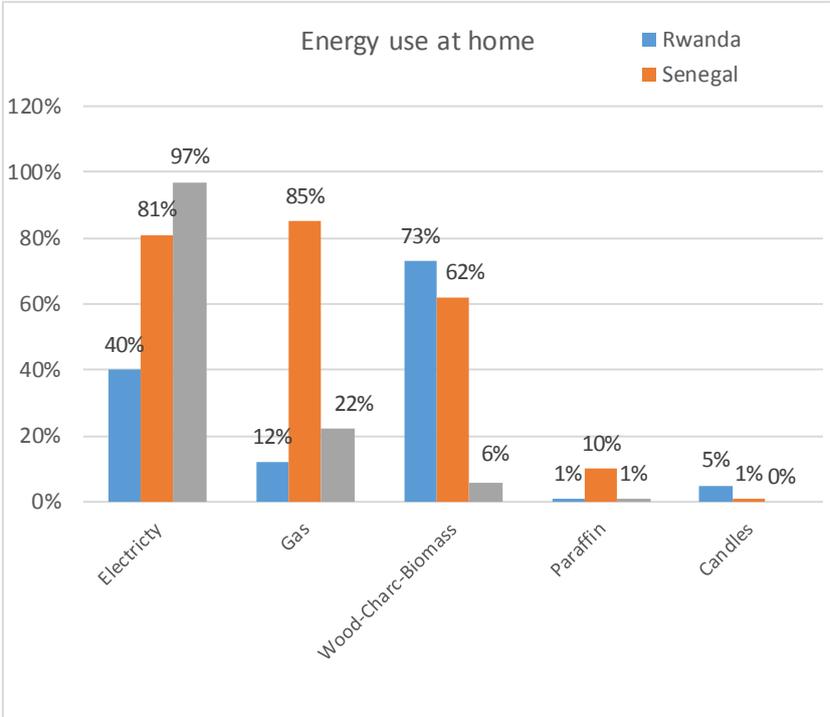


We asked if ‘energy subsidies would be a reason to change an energy source used in the business’. Based on the sample that receive home energy subsidies, 29% answered ‘yes’, which indicates that energy subsidies could encourage them to use other energy sources which may indicate a willingness to shift to modern energy sources, where possible. This result could be used for a policy recommendation that shows that subsidies targeted at businesses would encourage a shift to cleaner or more modern energy sources.

4.3. Country and energy use at home

The section on home energy subsidies in South Africa has indicated that respondents and business owners that we interviewed for this study, use some of their household energy services for business purposes. This indicates that, for the street food sector, there is a link between household energy use and enterprise energy use and that, enterprises benefit from household energy. We therefore asked our respondents about the energy sources they use at home and this multiple-response question was asked of all the 751 enterprises surveyed in the three countries.

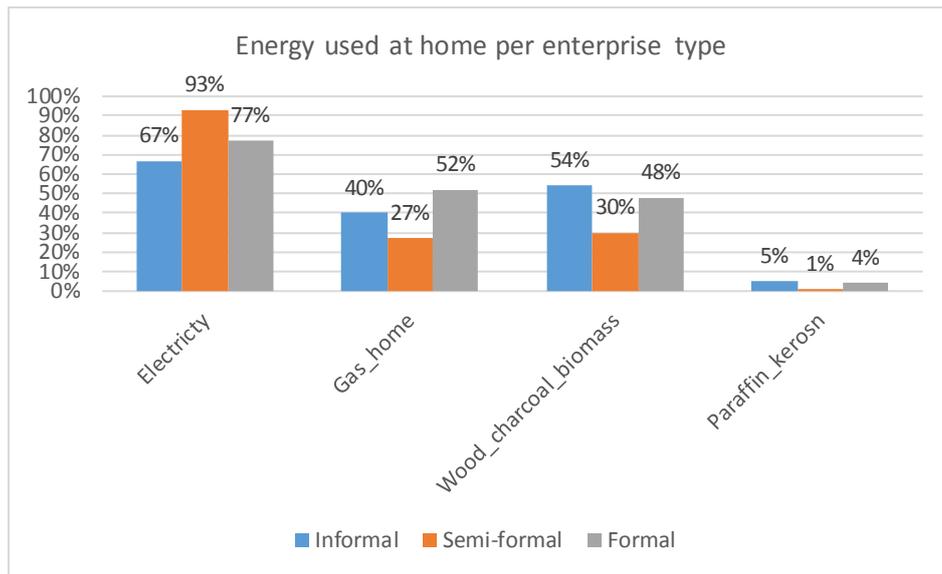
Figure 4.5: Energy use at home



The responses show that there are multiple types of energy use in the households of the people owning and employed in the enterprises surveyed. The most selected energy sources were electricity (74%), wood with charcoal and biomass (47%) and gas (39%). Figure 4.5 shows energy use at home and shows the most selected energy sources per country, revealing that in Senegal, a high percentage of households within our sample use a combination of electricity (81%), gas (85%) and wood and charcoal (62%). With regards to electrification in the urban areas of Senegal, our figures confirm national statistics, which show the rising electricity connections rate and use specifically in the urban areas. In South Africa, the selection of electricity amounted to 97% of respondents, whereas gas (22%) and a combination traditional sources such as charcoal and wood (6%) were not highly selected. On the other hand, the respondents in Rwanda selected a combination of wood, charcoal and biomass (73%), more than electricity (40%) and gas (12%). Use of wood and charcoal in Senegal and Rwanda also indicate the popularity in use of cleaner or improved cookstoves by householders in these countries.

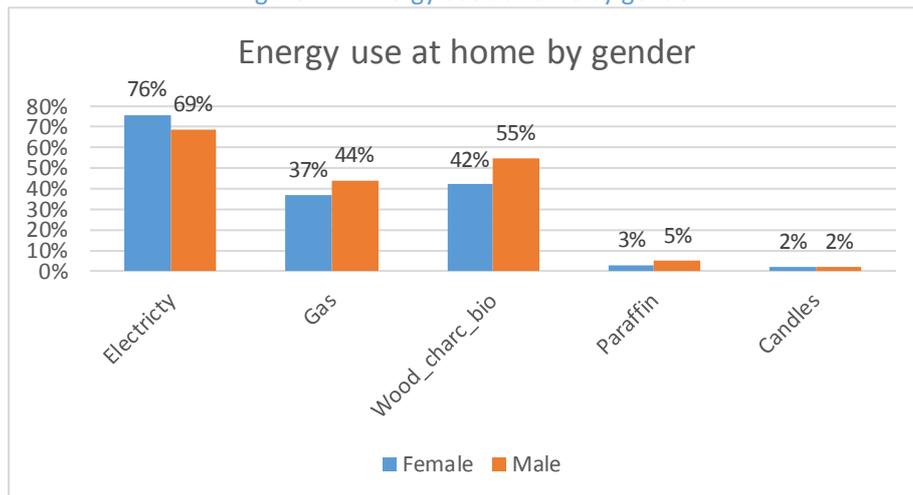
As seen in Figure 4.6, in cross-analysing the energy used at home with the type of enterprise, the multiple-responses that respondents could select show that more semi-formal enterprises selected use of electricity (93%) at home. The respondents in formal enterprises also selected more electricity use (77%), followed by gas (52%) and wood and charcoal (48%). The informal enterprise respondents also selected more use of electricity (67%) followed by wood and charcoal (54%) and gas (40%). Paraffin and candles were also selected by some of these respondents but the numbers were insignificant to report.

Figure 4.6: Energy use at home per enterprise type



With regards to the gender differences concerning energy use at home (Figure 4.7). Figure 4.7 shows that 76% of female respondents use electricity at home compared to 69% male respondents. With regards to gas, although there is not much difference, 37% of females use gas at home compared to 44% males. As charcoal is most used in Rwanda and Senegal as per our sample, 55% of the male respondents said they use this fuel compared to 42% of the females.

Figure 4.7: Energy use at home by gender



4.4. Discussion and conclusion

This chapter has illustrated that Street Food Enterprise owners and employees, use home energy sources for their enterprises too. In South Africa, the indigent households receiving energy subsidies use them to support their enterprises. This point shows that energy subsidies are important and do benefit income generating activities for the low-income households without formal employment.

The comparison between countries in looking at home energy use also shows that, households use multiple energy sources which include traditional (wood, charcoal and plant residues) and modern energy sources (electricity and gas). Since our samples were taken from the urban areas in the big cities from the three African countries, we see that households tend to use more modern energy sources than traditional ones. The data also shows that those owning and working in formal enterprises tend to use more modern energy sources at home compared to those in the informal and semi-formal enterprises.

The main conclusion and policy implication that can be drawn from this chapter is that, home energy is one of the critical elements in the functioning of the micro enterprises, especially those regarded as informal. It is also worth stating that energy policy tends not to consider productive uses of energy at the informal micro enterprise level, instead, concern is directed more at household level without acknowledging the link between enterprises energy use and household energy use.

5. WHY WOMEN DOMINATE THIS SECTOR

Globally, more than 60% of employed men and women earn their livelihoods in the so-called informal economy (“Women and Men in the Informal Economy: A Statistical Picture” 2018). In Dakar, Senegal, 89% of employed women compared to 70% of employed men are employed in the informal non-farm sector (Herrera et al. 2012). In Nigeria, despite significant formal economic growth, “the informal sector continues to be the greatest creator of jobs for women” (Ola-David and Oyelaran-Oyeyinka 2014, 20). These incomes contribute to food, shelter and children’s education, and fulfil an important role of food security in urban landscapes (Acho-Chi, 2002; Alves da Silva et al., 2014; Fasoyiro, 2011).

Our research has focussed on informal and semi-formal enterprises in the street food sector. For purposes of comparison, we also interviewed and surveyed micro- and small-scale formal street food enterprises, typically found in the same trading areas as informal and semi-formal enterprises. We did not interview women engaged in other subsectors of the informal economy.

This chapter will explore some of the reasons why women in particular are attracted to the informal sector according to the literature as well as why the street food sector in particular is an attractive sector for women. The findings from our survey data will also be used to test six common assumptions about why women dominate this sector and this will be complemented with gender observations made by respondents during our in-depth interviews.

5.1. Literature

The street food sector, like other sectors in the informal economy, has low barriers to entry, low start-up costs and has many linkages with the formal economy.

The informal economy’s ability to absorb semi-unskilled labour and the low barriers to entry are often cited as reasons for women’s high participation in the informal sector compared to the formal sector (Muzaffar, Huq, and Mallik 2009). As stated by Ramani et al. (2013, 6) state: “A majority of authors are of the view that, as opposed to men, women are above all engaged in the informal economy out of necessity rather than opportunism” (See also: Hernandez, Nunn, and Warnecke 2012; Minniti and Nardone 2007).

And being necessity-driven is described as having survivalist entrepreneurial logic as opposed being to opportunity-driven and having a growth-oriented entrepreneurial logic (Berner et al. 2012). This way of categorising enterprises based upon the initial reason for entering the sector and assumes that being necessity-driven and being growth-oriented or taking advantage of market opportunities are mutually exclusive. This thinking also assumes that the necessity-driven entrepreneur does not evolve over time or specialise in their services or products taking advantage of market opportunities (Knox et al. *forthcoming*).

The literature on micro and informal entrepreneurship also finds that women tend to dominate the survival category – driven by necessity, while there are more men in the growth category – driven by opportunities. In a thematic review of literature on gender and entrepreneurship, de Groot et al. (2017) concluded that categorical definitions of survivalist versus growth-oriented entrepreneurial logics are potentially damaging or misleading, and that assigning such entrepreneurial logics can discriminate against women who tend to dominate the category of survivalist entrepreneurs. In fact, common development policies and programmes as well as those specifically focusing on women’s entrepreneurship in Africa tend to support growth-oriented enterprises while neglecting survivalist enterprises at the macro, meso and micro levels (Berner et al. 2012; Choto, Tengeh, and Iwu 2014; Dejene 2007; Skinner and Haysom 2016). In the same vein, Kabeer (2012) asks why women tend to dominate the survival end of the continuum, and what would it take for them to advance towards the growth-oriented part of the spectrum.

Dejene (2007) identifies the following gender differentiated constraints to women's micro- and small enterprise growth: labour burden, skills, access to financial resources, weak infrastructure, limited access to markets, weak business organisation, and limited enabling environment. For these reasons, women are over-represented in saturated markets with few barriers to entry.

Self-employment in the informal economy is also said to provide women with the independence and flexibility to balance domestic and business responsibilities (Dejene 2007; Kabeer 2012; Minniti and Nardone 2007). Xheneti et al. (2017, 3) endeavour “to explore why, beyond survivalist or limited choice factors, women entrepreneurs in developing countries choose to work and remain in the informal sector”. Of the 76 articles that they reviewed that had empirical findings, they highlight three issues: the importance of context, intersectionality and positionality, and epistemic limitations.

Although the literature talks about the benefit of self-employment for women in the informal sector and women’s preferences to operate in this sector, this reason for starting a business is not considered as a separate category of entrepreneurial logic. These entrepreneurs who derive benefits from self-employment are lumped into the category of survivalist, which supposes that they would leave their informal self-employment if alternative formal wage employment was accessible to them. However, the literature at present does not consider a third category of entrepreneurial logic, based on the desire for financial independence and the flexibility of self-employment.

There are mixed findings in the literature relating to the value that informal workers themselves derive from their work. Temkin (2009), for example, found that informally self-employed respondents in Mexico tend to be poorer, older and less educated than those that are employed in the informal and formal sectors. They are also less satisfied with the economic situation of their household, among other things. This leads Temkin to conclude that the nature of informal self-employment can in most cases be described as survivalist and not a reflection of incipient entrepreneurship, individual choice or potential agents of economic growth. In contrast, Monteith and Giesbert (2017) found that informal workers in Uganda, Burkina Faso and Sri Lanka value a combination of instrumental features of work relating to income, survival and health, freedom and independence, trust and relationships at work, and social recognition and respect. Using our data, we will show in Chapter 6 that both men and women actually claim enormous benefits relating to individual empowerment from operating an enterprise in the street food sector.

5.2. Survey Data findings

In our sample of informal, semi-formal and formal enterprises in the street food sector, women certainly dominate; 480 (64%) of all respondents are women and 271 (36%) are men. As discussed in previous chapters, the sampling method did not target men or women, thus these percentages are expected to reflect the actual frequency of women and men operating in the sector.

5.2.1 Majority of respondents are the main breadwinner

The sector is a vital source of income for many poor urban households. 75% (562 of 751) of our sample identified themselves as the main breadwinner in their household – this was similar for both men and women. 74% of women identified as the main breadwinner in their household, and 77% of men did so too. The table below gives the number of respondents according to gender and marital status. Even though more single women than single men are the main breadwinner in their household and more married men are the main breadwinner than married women, it only emphasises the importance of this sector for the contribution men and women make to household income.

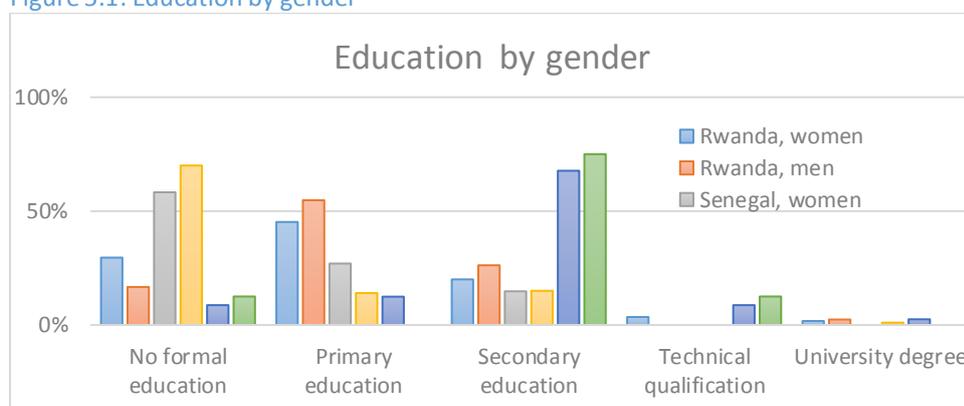
Table 5.1: Number of respondents that are breadwinners according to gender and marital status

Gender of respondent			Are you the main breadwinner in your household?		Total
			Yes	No	
Female	Single/Married	Single	194 (79%)	52 (21%)	246 (100%)
		Married	160 (68%)	74 (32%)	234 (100%)
	Total		354 (74%)	126 (26%)	480 (100%)
Male	Single/Married	Single	79 (70%)	39 (30%)	118 (100%)
		Married	129 (84%)	24 (16%)	153 (100%)
	Total		208 (77%)	63 (23%)	271 (100%)
Total	Single/Married	Single	273 (75%)	91 (25%)	364 (100%)
		Married	289 (75%)	98 (25%)	387 (100%)
	Total		562 (75%)	189 (25%)	751 (100%)

5.2.2 Low levels of education among street food vendors

The low rate of literacy among women is a significant handicap limiting economic development. The data shows that the average level of education for all entrepreneurs in Senegal is low compared to that of Rwanda and South Africa. 61% of all Senegalese respondents stated that they have no formal education, whereas only 23% in Rwanda do not have formal education and 8% in South Africa.

Figure 5.1: Education by gender



In 1960, only 3% of women in Senegal were literate. Now, according to the RGPHAE-2013, 37.7% of women are literate, compared to 53.7% of men. The ratio of female/male literacy is 0.7, representing 7 women versus 10 men. In rural areas, only about a quarter of women are literate (25.9%), (ANSD, 2013).

Since the street food sector has low barriers to entry, including no formal education requirement, it is unsurprising that women and men with low levels of education are attracted to the sector and that the sector is dominated by women who in Senegal have relatively lower levels of education than men. This is a factor blocking women empowerment in decision-making.

Low levels of education coupled with few employment opportunities (especially for women) also means that the SFS is a starting point where women can start as an informal enterprise and grow into a larger formal business. The SFS can also be a last resort for men and women to earn a livelihood until they find a better job, can retire or earn enough to start another business, which requires more capital.

In Senegal, a single woman, (aged 25-34, no education, co-owner of an informal enterprise) explained:

“I was studying in a Koranic school in The Gambia and I dreamed of becoming a teacher. My dream vanished unfortunately when I got married. After my divorce, I joined my sister in Kaolack and having no qualification, I proposed to my sister who was selling bananas at that time to work in restaurant sector and this is how our business was born.”

In Durban, South Africa, a woman operating an informal enterprise (aged 56, single, secondary education) explained that she was forced to take early retirement and as a result entered the street food sector, as a means to earn an income until she qualified for state pension. Another women in Senegal entered the SFS in order to support her children since her husband passed away. She said she would like to grow the business, and if her children would like to take over from her, she would like to retire. In many cases, women started working in the SFS when their husbands were no longer able to sustain or support their family’s needs.

5.2.3 Testing six assumptions about why women dominate the sector

Using our survey data, we can test six assumptions about why women dominate the sector:

Assumption 1: Women benefit from the ability to combine income-generating activities with other tasks like child minding or domestic chores.

Table 5.2: Number of male and female respondents who take breaks to complete non-enterprise tasks

		Periods during operating hours to complete any non-enterprise related tasks			Total
		Yes	No	Don't know	
Gender of respondent	Female	162 (34%)	317 (66%)	1 (0%)	480 (100%)
	Male	73 (27%)	198 (73%)	0 (0%)	271 (100%)
Total		235 (31%)	515 (69%)	1 (0%)	751 (100%)

Indeed, some women do benefit from the ability to undertake child minding and domestic chores during working hours in our sample. Table 5.3 shows that a third (34%) of women take periods during operating hours to complete non-enterprise related tasks, whereas 27% of men take such breaks. This indicates that some women and men appreciate the flexibility of self-employment in this sector. However, among those that take breaks to complete non-enterprise related tasks, child minding and domestic chores are indeed clearly more important for women than for men. This can be seen in the Figure 5.2.

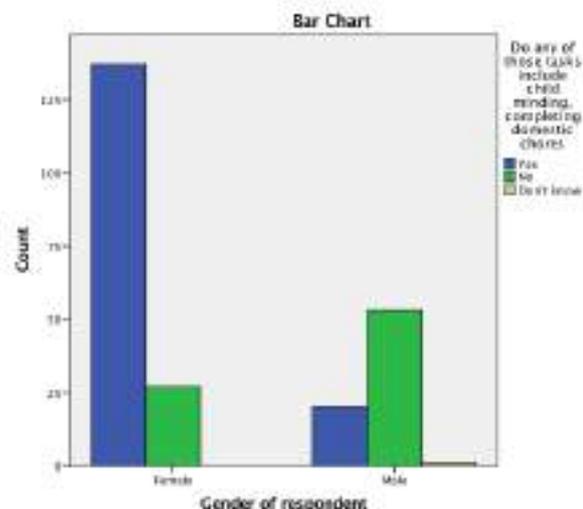


Figure 5.2 : Number of female and male respondents who take breaks to complete child-minding and/or domestic

Assumption 2: Women benefit from the ability to “close shop” or suspend operation when family members are ill.

This is not a major reason why women dominate this sector as only a very small number of women in our sample took time off in the last year due to illness in the family. We asked: Was the enterprise not in operation during the last year for more than a month? And why? 238 said yes (163 women, 75 men). Only 13 mentioned illness in the family as the reason; 8 women and 5 men. Interestingly 133 of these (96 women and 37 men) took time off for “holidays, including religious holidays like Ramadan” – that is 59% of women who stop operating for a month or more mention holidays as the reason for taking time off, but also 49% of the men. It is therefore more apparent that women benefit from being self-employed in this sector because they are able to take time off for holidays, fulfilling cultural and traditional practises – men benefit equally for the same reason.

Assumption 3: Women benefit from operating enterprises or being employed in close proximity to their home

We did not find this to be true in our sample of the street food sector. Only 79 women (16%) work from locations in close proximity to their home. Many more women do not (84%). This figure is similar for men too, as a relatively equal number of men (only 42) work in close proximity to their home. The majority do not work in close proximity to their home and this is similar for men and women.

However, if this data is disaggregated per country, it becomes apparent that in Senegal and Rwanda, more women than men choose to locate their business close to home. This is the second most common reason among women in Senegal (22% = 29/131) compared to men (12%= 13/109) and more so for women in Rwanda (29% = 37/128) compared to men (7% = 8/112). Whereas in South Africa, a meagre 4% of women compared to 9% of men chose a location close to home so that they can combine work with taking care of the family.

Table 5.3: Cross-tabulation of gender of the owner, country, description of the location

Description of the location			Country			
			Rwanda	Senegal	South Africa	Total
It is close to home so I can combine work with taking care of my family	Gender of the Owner	Female	37	29	8	74
		Male	8	13	5	26
	Total		45	42	13	100
It is a good place to attract customers	Gender of the Owner	Female	62	63	190	315
		Male	78	65	41	184
	Total		140	128	231	499
Available for hire	Gender of the Owner	Female	14	9	7	30
		Male	14	17	3	34
	Total		28	26	10	64
Other	Gender of the Owner	Female	3	11	10	24
		Male	2	9	3	14
	Total		5	20	13	38
No alternative	Gender of the Owner	Female	12	19	0	31
		Male	10	5	4	19
	Total		22	24	4	50
Total	Gender of the Owner	Female	128	131	215	474
		Male	112	109	56	277
	Total		240	240	271	751

In all countries, the main reason for choice of location is to attract customers. However, in Rwanda and Senegal, even if the most important factor for enterprise placement is that it is a good place to attract customers, women do benefit from operating enterprises or being employed in close proximity to their home, as the majority of them are married and carry the burden of child0care and domestic chores. This is not the case for South Africa, where there are few married women in the street food sector.

Assumption 4: Women benefit from ease of entry in this sector because cooking is a common skill for women.

In our sample of women and men already working in the sector, 76% of the women cook and 65% of the men also cook. A few more men than women are just selling or processing food as opposed to cooking and food preparation, but the difference is just small: two-thirds of men do cook. We can only test this hypothesis for those already operating in the sector. It can still be true, that women more than men choose to start working in this sector because the work of cooking is a culturally determined “female task”?

Assumption 5: Women in this sector benefit from the opportunity to use left-over food to supplement their home meals

While the majority do not practise this, some do benefit from this opportunity to supplement home meals. In our sample, 27% of women use left-over food to supplement the meal at home, while just 15% of men do the same (men store it more often to be sold the next day). Interestingly, 16% of women give leftover food to the needy, whereas less than 9% of men do so.

Assumption 6: Women in this sector are driven by necessity and can be classified as survivalist enterprises

Table 5.4 shows that both men (91%) and women (91%) in this sector strongly agree and agree with the statement “I am self-reliant out of necessity”. However contrary to the literature on survivalist vs growth-oriented enterprises (Knox et al *forthcoming*), our data shows that respondents may strongly agree that their motivation for operating an enterprise is out of necessity while they also strongly agree that they would like to eventually develop their enterprise into a formal business as is shown in table 5.5. Being necessity-driven does not appear to have any bearing upon the entrepreneurial logic of an enterprise owner or their aspirations to grow.

Table 5.4: Statement on necessity driven and gender

		I am self-reliant out of necessity				Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	
Gender of the Owner	Female	140	218	32	3	393
	Male	111	94	18	2	225
Total		251	312	50	5	618

Table 5.5: Statement on wish to develop into formal business and gender

		I would like my enterprise ultimately to develop into a formal business, like a real restaurant or food product factory					Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	
Gender of the Owner	Female	211	144	18	16	4	393
	Male	143	66	7	8	1	225
Total		354	210	25	24	5	618

Table 5.5 shows that the ambition to eventually grow one's business into a " formal business like a restaurant or product factory" are broadly shared and go well beyond a subsistence or survival orientation. 91% of owners

agree and strongly agree with the statement while only 5% disagree. There is hardly a difference between women and men. The only gendered difference is that men are slightly more eager to develop into a formal business (Spearman’s Rho is just -.084). Our qualitative data supports this finding, for instance Sentwali (Rwandan single male, aged 25-34, no education, informal enterprise) states that:

“Of course, I do have the project of creating a restaurant in the next couple of years and we actually also plan other things. It is my dream to have a restaurant.”

Uwimana (Rwandan married woman, aged 25-34, no education, informal enterprise) expresses a similar desire growing into a large enterprise:

“Yes, because my dream is to have a big known restaurant in my country, with my dreams I cannot wait those years. If I have money, I can start now.”

Table 5.6: Statement about hiring labour and gender

		I would like to use hired labour to expand my enterprise						Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Refused to respond	
Gender of the Owner	Female	130	158	32	54	18	1	393
	Male	107	82	12	16	7	1	225
Total		237	240	44	70	25	2	618

Table 5.6 shows that a large portion (77%) of the owners in our sample also agreed with the statement that they would like to hire more people to expand their enterprise but some disagreed (15%).

When given the chance to speak for themselves, our data shows that enterprises in the SFS do have aspirations to expand their businesses, employ more people, increase their product range, attract more customers, start new businesses and operate in multiple locations. These findings are elaborated in the paper “Aspirations To Grow: When Micro- and Informal Enterprises in The Street Food Sector Speak For Themselves” by Knox, Bressers, Mohlakoana and de Groot (forthcoming) presented at the BAMDE Conference in Bulgaria, as well as the DIANA Conference in Bangkok.

In summary, our data confirms that women are well represented and even dominate the street food sector, and that the majority of respondents owning and/or operating enterprises in this sector identify themselves as the main breadwinner for many households. A third of women do benefit from the ability to undertake child-minding and domestic chores during working hours in our sample. Some women also benefit from the opportunity to use leftover food to supplement home meals. These benefits are similar for men in our sample. The majority of women do not operate in close proximity to their home and very few women suspend their enterprise operation due to illness in the family – this is also similar for men in our sample. We can show that both men and women in this sector undertake cooking tasks in their enterprise, but it may be true that more women than men are attracted to this sector because of their familiarity with the skill of cooking produced by gender norms and traditions. And lastly, the data shows that while 91% of both men and women are necessity driven, they do aspire to grow their enterprise. This is contrary to the literature, which labels necessity driven entrepreneurs as ‘survivalist’ and is a category of informal entrepreneurs dominated by women. For many micro- and informal enterprises in the SFS, the label ‘survivalist’ can render them beyond the reach of common development policies, which give priority to so-called growth-oriented enterprises.

Box 5.1: Nomsa's story



The lady in this picture is Nomsa. Nomsa has a sheep head trading enterprise and she has always been in this business, which she inherited from her mother. She, as so many women in her township in South Africa, is the head of the household and bears the full responsibility for her children as there has never been any input from the children's father. Now, she is glad he is gone as she feels she can stand on her own two feet and determine her destiny. Nomsa realised early on the need for a solid income, and to achieve this, she has sold about 20 sheep heads a day for the past 20 years. She indicates that this does not sound like much, especially not with the hard work and high energy costs that go into this business. But, she proudly emphasizes that it has been enough to send her three girls to school from the money, with one of them ready to go to university. Nomsa takes great pride in her enterprise and proudly showed the interviewer all aspects of the business, from preparing and cooking the heads to a detailed explanation of how she manages her business. She says 'it is hard work, but fulfilling ... and with wonderful social contacts'.

Gender observations by respondents in the following section complement these findings.

5.3. Gender observations by respondents:

The gender observations presented in this chapter are responses to the question: In your opinion, based on your observations and experience in the IFS, are there more women or men that own and operate businesses in your immediate surroundings?

Prompt questions:

- Has it always been this way or have there been some changes (recent-more long term changes)?
- Are women or men more successful with their businesses or it is the same for everybody?

Several respondents in Senegal observed that in recent years, more men have entered the street food sector, which was traditionally dominated by women. Many observe that this is because men and migrant workers from other countries are finding it more and more difficult to find formal employment, and as a result they turn to self-employment in the street food sector. For example:

Senegal Q...27/SEYNABOU DIOP: Female, 44-55, no education, married, temp worker since 2017, male enterprise owner; Dakar, Senegal, Formal enterprise.

“In my opinion and based on my experience, men are more representative than women in the informal food industry because nowadays, it’s very hard to find a job, and as a result, men are found in more and more sectors formerly reserved to women.”

In Rwanda, a number of respondents expressed a view that there is much shame in operating an informal enterprise. For this reason, they believe that more women than men, driven by necessity to feed and support their families, operate informally in the street food sector. For example:

Rwanda Q...11: Male, 25-34, primary education, married, owner of formal restaurant since 2013, Rwanda, Formal enterprise

“Women are so many than men in this business because women are more talented in food processing than men, moreover women are the ones who are not ashamed of doing such business called “fake jobs” and are also more patient than men due to their family’s problems and responsibilities especially to the kids.”

However others are of the view that both men and women operate informally in the street food sector out of necessity (“survivalist” motivations??).

Rwanda Q...09: Male, 18-24, primary education, single, owner of boiled egg selling business since 2014, Kicukiro, Rwanda, Informal enterprise

“Based on my observation, all men and women in informal business are equal because all us have problems to resolve and I say so because we meet many times and it was always the same.”

In South Africa, answers were also mixed. Some stated that there were more women and there always has been more women selling food, others believe that the sector is mixed and others gave more detailed responses about why they think women dominate the sector.

Durban Q...01: Female, 45-54, secondary education, married, owner since 2015; Durban, South Africa, Informal enterprise

“Women are more dominant in this kind of a business and [know] how to be the most successful. She said men can’t stand cooking all the time, so that’s why women are more dominant in the food sector. She feels that women do know more about cooking than most men. She further stated that there are men who are very good at cooking and passionate about cooking. E.g. if you go to a University, you find men doing studies related to catering and food sciences.”

On the other hand, a formal enterprise owner gave many examples of how gendered roles have become more balanced in South Africa.

5.4. Conclusion

Like other sectors of the informal economy, women are attracted to the street food sector as a means to earn livelihoods. In our study, 75% of all respondents identified themselves as the main breadwinner in their household – this was similar for both men and women. 74% of women identified as the main breadwinner in their household, and 77% of men did so too. Also the data shows that while 91% of both men and women are necessity driven, they do aspire to grow their enterprise. Being necessity driven and growth orientated are not mutually exclusive, and development policies should not neglect these enterprises in this sector.

A third of women do benefit from the ability to undertake child-minding and domestic chores during working hours in our sample. Some women also benefit from the opportunity to use leftover food to supplement home meals. These benefits are similar for men in our sample.

The ability to locate one's business close to home in order to take care of household domestic chores and child-minding is attractive for women in Rwanda and Senegal. Even if the most important factor for enterprise placement is that it is a good place to attract customers, women do benefit from operating enterprises or being employed in close proximity to their home, as the majority of them are married and carry the burden of child-care and domestic chores. This is not the case for South Africa, where there are few married women in the street food sector.

Unlike other sectors of the informal economy, the street food sector involves skills of cooking, and food preparation. No formal education is required and respondents show very low levels of education. Men and women with low levels of education are attracted to this sector. Although the data shows that both men and women undertake cooking tasks in this sector, women might be attracted to this sector because traditionally, cooking and food preparations skills are domestic skills learnt by mostly girls and women in Africa.

The street food sector provides opportunities for women as they have fewer opportunities than men. Furthermore, the study identified that once people are in the sector, their behavior is similar. Apart from high levels of female street food vendors in our case study, limited gender-differences found. This suggests that once an entrepreneur is in the sector, behavior is similar. One important difference, however was established: of the almost 50% of women that have time to do other tasks during working days, the large majority of these indicate that this time is spent on domestic and reproductive tasks. A key policy message, therefore, is that providing support for the sector as a whole could contribute to achieving gender impacts rather than focusing on women in particular.

6. EMPOWERMENT, ENTERPRISE AND GENDER

6.1. Introduction and conceptual background

The street food sector in Africa provides livelihood to thousands of people and presents an economic opportunity with low barriers to entry. Apart from the direct financial gains, a street food enterprise can provide indirect benefits related to the job and ownership, especially for women. In this chapter, we try to capture the empowerment outcomes for women of such street food enterprises. The purpose of this research is not primarily to contribute to the conceptual debate on empowerment but to explore empirically the factors that promote such empowerment in three African countries. This chapter focuses on gender, empowerment and entrepreneurship in the street food sector.

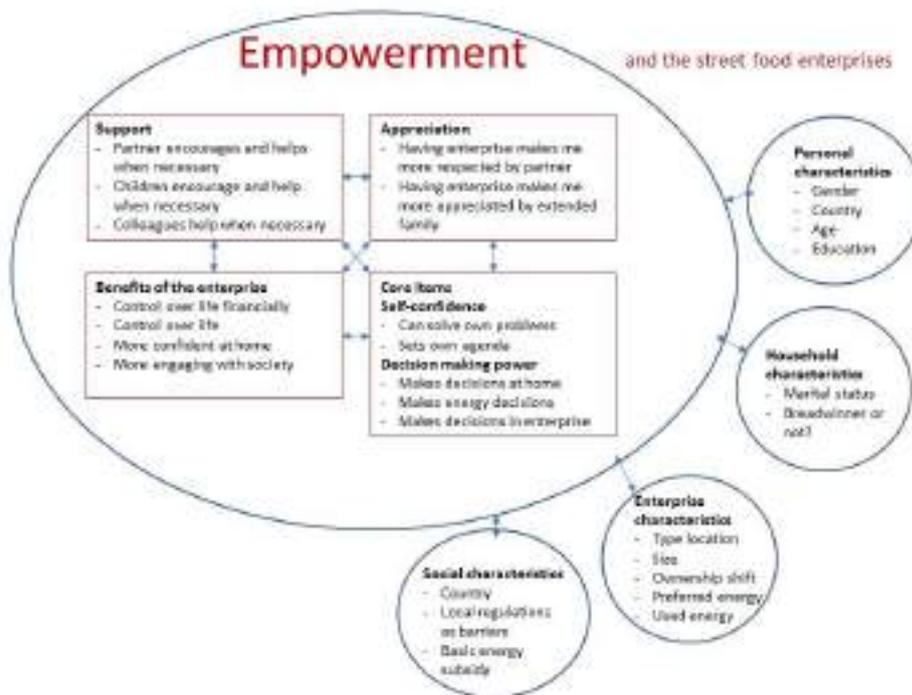
6.2. Gender equality and empowerment – a conceptual model for empowerment analysis

Gender equality is recognised as a universal Human Right and features as a Sustainable Development Goal (SDG). It encompasses equal access to services and resources, decent work, and representation in political and economic decision-making processes that will fuel sustainable economies and provide benefits to society and humanity at large (UN, 2016). Gender equality is achieved through the empowerment of women, and claims that access to energy can also ‘unleash a process of women’s empowerment, bringing in changes in gender relations’ (UNDP, 2011) are widespread.

But what is meant by empowerment? Empowerment is the ability of people - both women and men – to take control over their lives: set their own agendas, gain skills (or have their own skills and knowledge recognized), increase self-confidence, solve problems, and develop self-reliance. It is both a process and an outcome’ (UN-Women, 2010), no page available). The process of empowerment is, therefore, an expansion in an individual's ability to make strategic life choices in a context where this ability was previously denied to them (Clancy and Machera 2018).

While we do not aim to enter the theoretical discussion on empowerment as such, in the survey design we implicitly employed a model of empowerment-related factors. This section describes this model (See Figure 6.1 below) which has been used to structure our analysis. While we acknowledge that the empowerment of individuals sits within a social context, in which cultural biases, social values and governance affect an individual's empowerment, our analysis of empowerment in this chapter focuses on what we call ‘empowerment from an individual perspective’, due to the nature of the data collected in this study and our study's scope. As a consequence, the data presented below presents the empowerment perspective of individual interviewees. Nevertheless, our results contribute important insights into these social, context-driven approaches to empowerment, as they featured in respondents’ answers.

Figure 6.1: Conceptual model of factors relating to empowerment of women with street food enterprises (developed by the authors)



In Figure 6.1, the factors of empowerment and characteristics of street food enterprises are drawn from the questions which were included in our survey and for which we have empirical data. A combination of social, enterprise, household and personal characteristics of the street food sector are included in the analysis.

The overview in Annex 5 (Table 6.1) lists all the variables that were measured, arranged in groups, and which show how they relate to the model shown in Figure 6.1. As noted above, the data gathered in the survey focuses on the individual, but we believe that many of the large-scale social and contextual aspects in our survey are captured through the proxy variable 'country', in that these society-wide factors may be constant within countries and may contrast between countries as well. We do however recognise that in this way, a large number of cultural, religious, economic, and political aspects are all being put into one basket, which may make interpretation of country differences difficult later.

The remainder of the paper follows the logic of the blocks of variables in the conceptual model. Thus, first we will explore the degree to which two self-confidence items and three decision-making items are supported and whether this is more so among females or males. Then we will investigate how these items are related to the appreciation, support and direct benefits that the enterprise generates. The relationships among those enterprise items will be explored, as well as the gender aspect. Lastly, we pay attention to the influence of a number of personal, household, enterprise and social characteristics.

Many of the variables are measured on a five point scale: strongly agree, agree, neither agree or disagree, disagree and strongly disagree, and as most are at ordinal level of measurement (or are transformed to an ordinal level), an analysis using the non-parametric Spearman's Rho statistic was used to compare responses of men and women and between responses to different statements. Most of the analysis presented is with the 618 respondents in our sample that are also the owners of the enterprise. We also did this analysis with the remaining 133 respondents that were employees. For reasons of space we will not present the tables and graphs relating to the employee respondents, however, when the results among employees are clearly different, we will note this in the text.

6.3. Findings

6.3.1 Self-confidence and decision-making power

We asked the interviewees two questions regarding the general self-confidence: whether they can handle their own problems; and whether they feel they can set their own agenda. Table 6.1 below shows the responses.

Table 6.1: Own problem solving and gender

		I can solve my own problems					Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	
Gender of the Owner	Female	152 (39%)	197 (50%)	29 (7%)	11 (3%)	4 (1%)	393
	Male	112 (49%)	80 (36%)	25 (11%)	8 (4%)	0 (0%)	225
Total		264 (43%)	277 (45%)	54 (9%)	19 (3%)	4 (0%)	618

The vast majority of both women and men (strongly) agree with this statement, although men felt slightly stronger about this issue than women did. This is a key finding of the study which suggests that the enterprise either empowered people or that people that already felt empowered started a business. However, this difference between men and women is not significant (Rho $-.072$, sig $.072$) even with this large sample.

The second statement, that of agenda setting and being in control over the planning of ones' life, yielded similar results.

Table 6.2: Agenda setting and gender

		I set my own agenda (I plan my own life activities)				Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	
Gender of the Owner	Female	171 (44%)	206 (52%)	13 (3%)	3 (1%)	393
	Male	138 (61%)	74 (33%)	11 (5%)	2 (1%)	225
Total		309 (50%)	280 (45%)	24 (4%)	5 (1%)	618

Table 6.2 shows that 44% of respondents strongly agreed and 54% agree that they have the freedom to plan their own life activities. Here it is somewhat clearer that men feel this more strongly than women (Rho $-.152$). Even so, also 96% of the women agree, and the difference with men is mostly in the strength of agreement. Among the 133 employees there is no correlation with gender. This is one of the key findings of the study as it suggests the respondents' ability to make strategic life choices.

These two self-confidence variables are quite clearly cross-correlated (Rho $.417$, sig $.000$, $n=618$), and show an optimistic self-assessment. Would this also be reflected in high scores on decision making power, starting with household decisions?

Regarding household decisions (Table 6.3) analysis of the data shows that 67% of women agree and agree strongly that they make the important household decision themselves and 27% make them together with men. For men the figures are 69% and 22%. Although ownership of the enterprise as such does not seem to make very much difference herein this may in part be explained by the fact that 75% of respondents identify as the main breadwinner in the household. Nevertheless, these findings suggest that both women and men have responsibilities at the household level and make important household decisions.

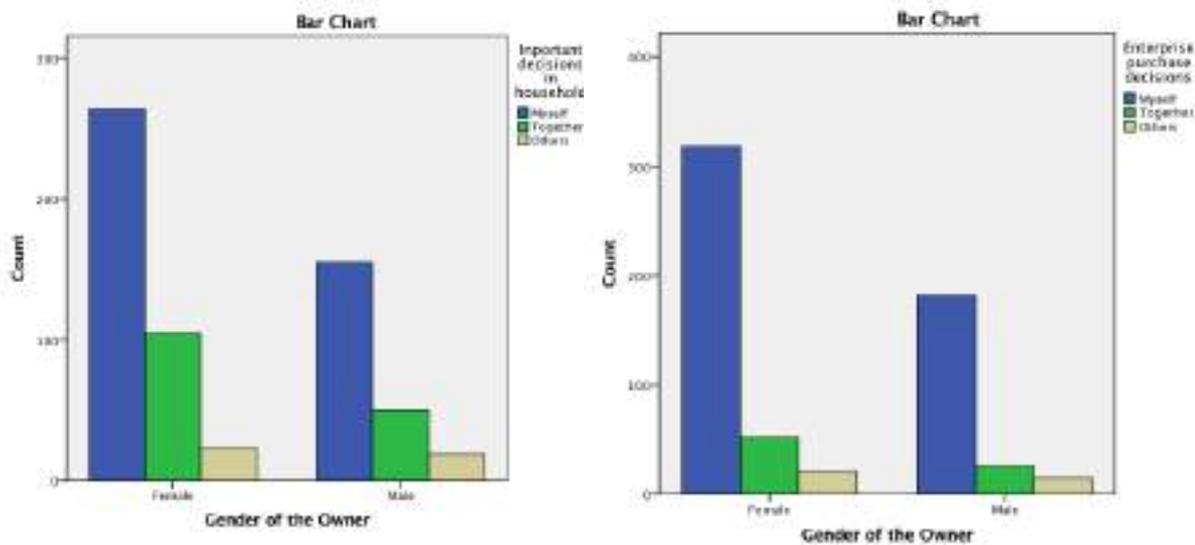
Table 6.3: Household decisions and gender

		Important decisions in household			Total
		Myself	Together	Others	
Gender of the Owner	Female	264 (67%)	105 (27%)	23 (6%)	392
	Male	155 (69%)	50 (22%)	19 (8%)	224
Total		419 (68%)	155 (25%)	42 (7%)	616

For comparison, we analysed the data from the survey from street food workers who were not owners but employees, to determine if the attribute of ownership is correlated with this kind of self-confidence. The findings of this analysis showed that among employees (n=133), 26% of respondents indicated that parents made the decisions in the households. This number was only 3.5% among the owners (n=618). This can be explained by the demographics of the employee example, which were generally younger, mostly single but also more highly educated.

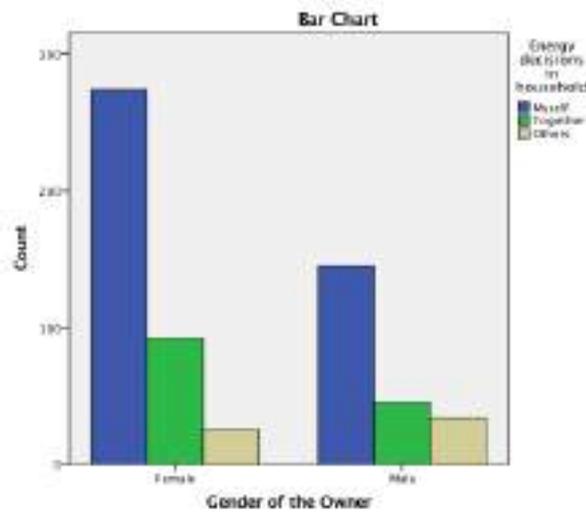
Figure 6.2 below shows the answers of the owners on who makes the important decisions in the household and the important purchasing decisions in the enterprise. Both items show that most claim to make the decisions themselves or together with their partner. This is even more true for the important decisions in the enterprise. Both are unrelated to the gender of the owner.

Figure 6.2: Decision making in household and enterprise purchase decisions, and gender



To explore whether decision-making behaviour changes with regard to energy, we also asked about who makes the important energy decisions in the household. We see that again most claim to make such decisions themselves (68%) – this is a bit less true for males than for females, although the relationship is not really significant (.078, sig .054, n=615). Among the employees, there is a much smaller majority that claims to make the decisions themselves (53%). A relatively large proportion of the employees leave these decisions to others (38%), predominantly to parents (34%).

Figure 6.3: Energy decision making in the household, by gender



Among the three decision-making variables, there are clear relations, most of all between

the household decision variable and the household energy decision variable (Rho .697, sig .000, n=615). The enterprise decision variable correlates .275 (sig .000, n=613) with household decision-making and .244 (sig .000, n=612) with energy in the household decision-making. However, there are no relations with the two self-confidence items. They seem to represent a very different side of the same picture.

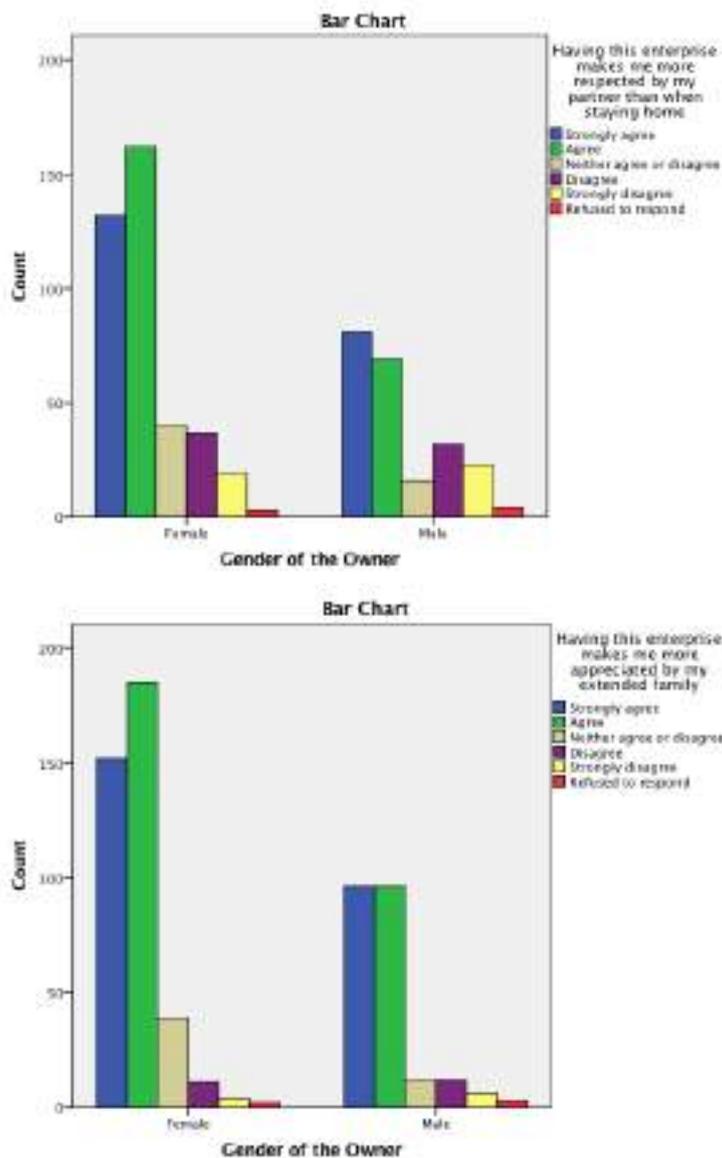
6.3.2 Empowerment in the social context

While we regard ‘empowerment’ ultimately as a form of independence and control, this does, by no means, imply that there is not a social context that is relevant to enable or restrict such empowerment. In this section, we pay attention to three sets of variables that are related to the fact that the interviewee operates a street food enterprise: i) appreciation, ii) support, and iii) the benefits of the enterprise itself. All of these variables were measured by statements in our survey.

i) Appreciation

Appreciation was measured from two important parts of the social context of the enterprise owners: their partners; and their extended family.

Figure 6.4: Appreciation by partner and extended family, and gender

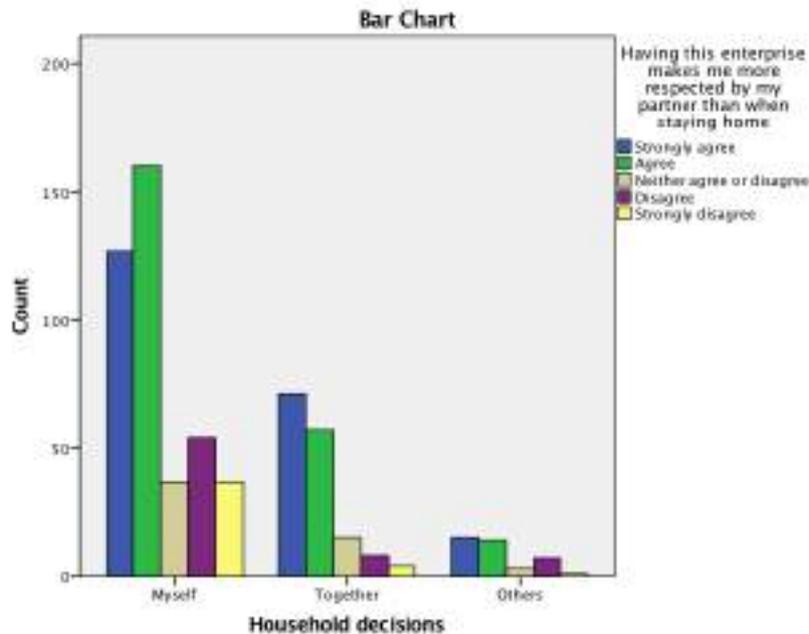


Both statements were supported by large majorities and are not correlated with the gender of the owner. Defining the few that refused to respond to this question as ‘missing’, these two statements are clearly correlating (Rho .364, sig .000, n=607). They also correlate positively with the self-confidence items, though that appears much truer for the appreciation by the extended family than for the appreciation by the partner. The appreciation by the extended family correlates quite strongly, respectively .389 and .348 with these items (both sig .000, n=613). The appreciation by the partners correlates less: .107 (sig .008, n=611) with “I can solve my own problems” and .162 (sig .000, n=611) with “I set my own agenda”. However, that figure is partially a result of that not all respondents having a partner. Among the 353 that are married, the correlations are stronger: .182 (sig .001) with solving own problems and .365 (sig .000) with setting their own agenda.

Among the 133 employees, appreciation by the extended family also correlates with both self-confidence variables. Partner appreciation correlates with solving own problems (.173, n=133, sig .047), but not with setting one’s own agenda; here, there is a difference between women and men: among men the relation is absent, but among women there actually is a positive relationship (Rho .236, sig .026).

Appreciation by the extended family is not significantly correlated with decision-making in the household. Appreciation by the partner is even somewhat negatively correlated with decision-making in the household: $Rho = -.149$ (sig .000, $n=610$). This situation is similar for both female and male respondents.

Figure 6.5: Making household decisions and respected by the partner



The enterprise owners that claim that they themselves make the important household decisions agree a bit less (strongly) with the statement that their partners respect them more for having an enterprise rather than staying at home. The category that agrees strongest and disagrees the least with the statement consists of the ones that claim that they make the household decisions *together* with their partners. With the two other decision-making items (for enterprise decision making and energy decision at home), we see only a negative correlation between making energy decisions at home and feeling appreciated by a partner as a result of having the enterprise: $-.129$. Since it is weaker, not stronger, this might just be connected to the strong correlation between the two household decision items, and does not call for an additional, 'energy related' explanation.

ii) Support

The support experienced by enterprise owners and employees for their work in the enterprise was measured with three statements relating to partners, children and colleagues:

- My partner encourages me and helps when necessary;
- My children encourage me and help when necessary¹¹; and
- My colleagues help me when necessary.

Therefore, the aspect of encouragement was added, to make sure that it is not just about actual work done, but also about moral support.

The three support variables are mutually correlated, but only moderately. Support by the partner correlates $.272$ with that of children and $.161$ with that of colleagues, support by children $.271$ with that of colleagues. As can be expected, appreciation by the partner is positively correlated with encouragement and help from the partner

¹¹ We acknowledge that there can be serious issues with too much help from children as, depending on the child's age, can be deemed child labour.

(Rho .334), but it is also somewhat positively correlated with encouragement and help from the children (.281) and far less with that of colleagues (.097).

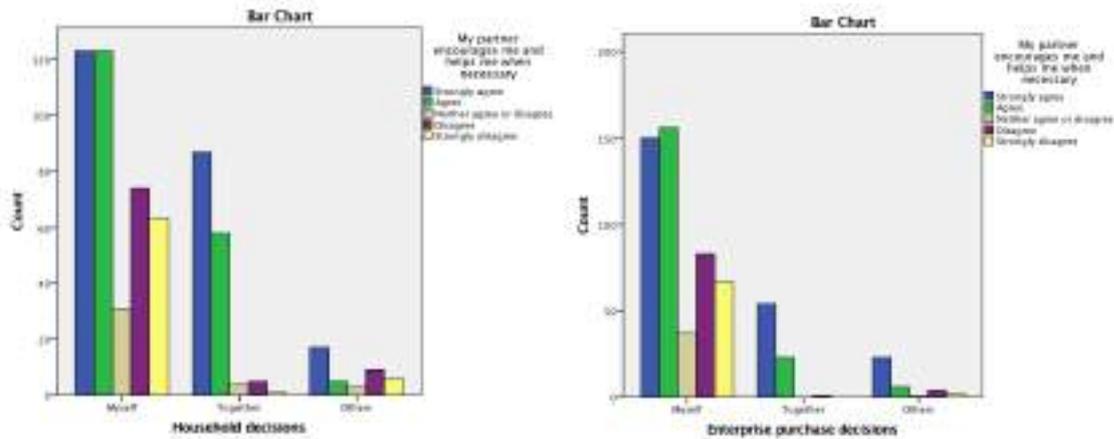
When relating the support variables to the gender of the owner, it is only the encouragement by the children that correlates (Rho .198, sig .000, n=608): women feel somewhat more supported by their children than male owners.

Table 6.4: Children’s encouragement and gender

		My children encourage me and help me when necessary					Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	
Gender of the Owner	Female	142 (36%)	170 (44%)	26 (7%)	38 (10%)	12 (3%)	388
	Male	63 (29%)	63 (29%)	24 (11%)	40 (18%)	30 (13%)	220
Total		205 (34%)	233 (38%)	50 (8%)	78 (13%)	42 (7%)	608

The phenomenon that making the important decisions in the household themselves, correlates *negatively* with partner appreciation is also visible with help from the partner help (Rho -.256, sig .000, n=609). Here the negative correlation is much stronger for women (-.344, sig .000, n=389) than for men (-.119, sig .079, n=220), indicating that women, much more than men, lose the help of their partners when claiming to make important decisions regarding the household on their own (the other direction of causality is not impossible but more difficult to conceive). It is again the group that claims to make important household decisions together with their partners that is most positive about encouragement and help by their partner, as shown in the figure below.

Figure 6.6: Partner help and making household decisions (left) and enterprise decisions (right)



Similar negative correlations also exist with “making energy decisions in the household” (-.248, sig .000, n=608), almost the same as with household decision making in general. With decision-making in the enterprise, the relationship is even stronger: -.309, sig .000, n=60). Like with the household decisions, the negative correlation is somewhat stronger for females (-.340) than it is for males (-.263). Again, but somewhat less clear, making decisions together correlates with most partner support.

With the self-confidence indicator “I set my own agenda (I plan my own life activities)” of the three support statements only that of support by children is somewhat correlated (Rho .085, sig .035, n=608), the others are not. The other indicator “I can solve my own problems” is not really correlated with help by the partner, but it is

with help by the children (.195, sig .000, n=608, and even more so with help by the colleagues (.238, sig .000, n=617).

Faith's story in box 6.1 also shows how with support from her husband, Faith operated an informal enterprise in South Africa. Although she made enterprise decisions on her own, she was able to grow her business, become financially independent and with a little convincing of her husband, she was able to pursue a career as a social worker and close her business after 7 years.

Box 6.1 An example of decision-making power and independence



The lady in the picture above is Faith. She had an informal vetkoek shop in one of the townships in Cape Town. Vetkoek or Amagwinya are a savoury snack made from deep-fried dough and served with filling of stew, mince, cheese, or just plain. After working for 7 years in her vetkoek shop, Faith closed the shop. She indicated that her husband has been supportive of her from the beginning, even though she made the important decisions about her enterprise. Faith indicated she felt valued during her time of running the vetkoek shop, both by her family and the community. However the reason she closed the shop was because she desired to go back to school and study to be a social worker. She was able to save enough money from the income she generated in her shop to pay her own way in furthering her education and achieving her dream. Faith has been married for 10 years, but she indicated that she felt a strong drive to be financially independent. It took some time to convince her husband that she could close the shop and go back to school.

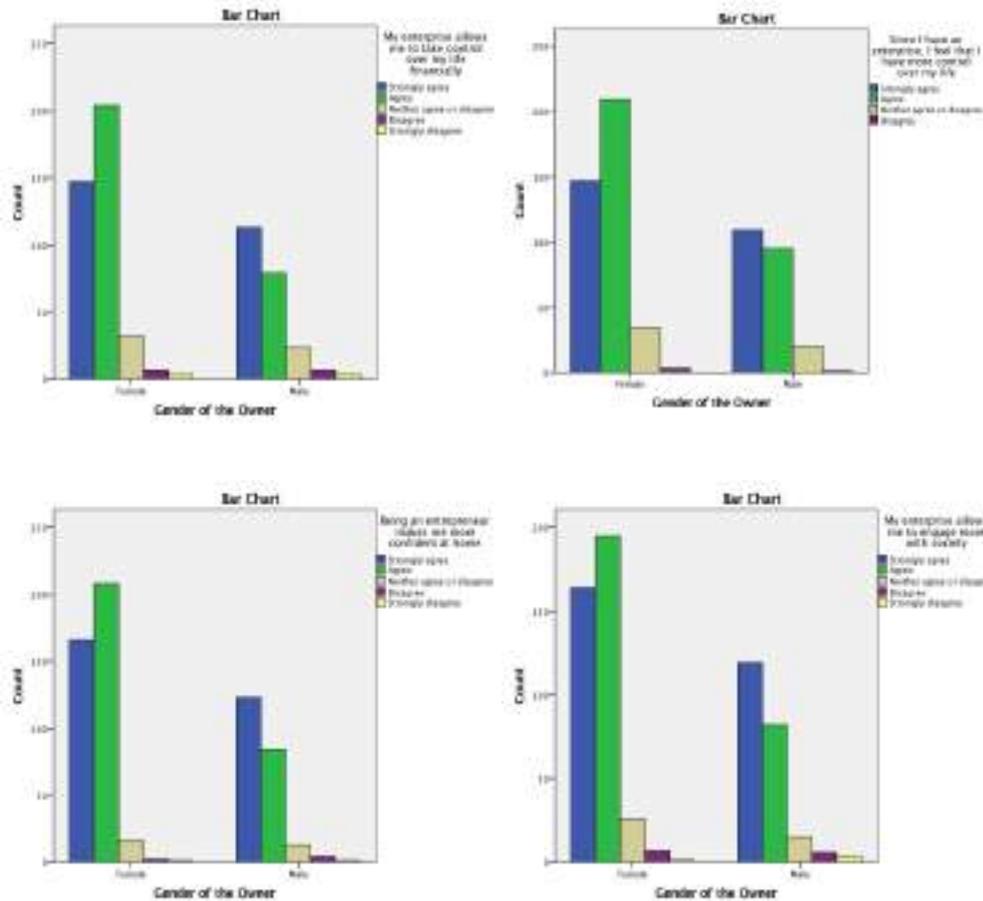
iii) Benefits of the enterprise

The third set of enterprise-related aspects of empowerment are the direct benefits that the interviewees derive from operating their street food enterprise. To indicate these we used four statements, on finance, life in general, home and society:

- My enterprise allows me to take control over my life financially;
- My enterprise allows me to take control over my life;
- Being an entrepreneur makes me more confident at home; and
- My enterprise allows me to engage more with society.

The graphs below show how the answers were divided for both women and men.

Figure 6.7: Four direct benefits from enterprise and gender



In all four cases, we first of all see that the large majority of respondents feel that their enterprise provides them with these benefits. The differences between women and men are small, but with this quite large sample, statistically significant (varying from Rho $-.081$, sig $.004$ to Rho $-.093$, sig $.002$). Among the employees, only the correlation with being confident at home is at similar level ($-.112$, $n=133$, sig $.199$), though

with the small number not significant.

Among the correlations of these four benefits of enterprises with the appreciation and the support items, especially the strength of relationships with the appreciation of the extended family catches the eye. The four enterprise benefits relate respectively $.367$, $.423$, $.430$ and $.401$ (all sig $.000$, $n=613$) with the appreciation by the extended family. Correlations with the other items are lower or absent, none of them, however, are negative. Appreciation by the partner and help by the partner for instance correlate respectively $.154$ and $.149$ with "being an entrepreneur makes me more confident at home", indicating that it is not so much the "confidence" as well as the "own decision making" that relates negatively with partner appreciation and help.

When we turn to the relationship between the four enterprise benefits and the items of empowerment themselves, we get the following picture. Making the important household decisions is not correlated to any of these benefits, neither positively nor negatively – the same is true for making the energy decisions in the household. With making the important purchasing decisions in the enterprise, only "being an entrepreneur makes me more confident at home" correlates ($-.105$, sig $.009$, $n=614$).

Table 6.5: Correlations among self-confidence variables and benefits from the enterprise

	I can solve my own problems	I set my own agenda (I plan my own life activities)	My enterprise allows me to take control over my life financially	Since I have an enterprise, I feel that I have more control over my life	Being an entrepreneur makes me more confident at home	My enterprise allows me to engage more with society
Spearman's rho	1.000	.417 ^{**}	.400 ^{**}	.393 ^{**}	.390 ^{**}	.435 ^{**}
	I can solve my own problems	1.000	.407 ^{**}	.451 ^{**}	.513 ^{**}	.427 ^{**}
	I set my own agenda (I plan my own life activities)	.417 ^{**}	1.000	.407 ^{**}	.517 ^{**}	.464 ^{**}
	My enterprise allows me to take control over my life financially	.400 ^{**}	.407 ^{**}	1.000	.391 ^{**}	.481 ^{**}
	Since I have an enterprise, I feel that I have more control over my life	.393 ^{**}	.451 ^{**}	.407 ^{**}	1.000	.432 ^{**}
	Being an entrepreneur makes me more confident at home	.390 ^{**}	.513 ^{**}	.391 ^{**}	.391 ^{**}	1.000
	My enterprise allows me to engage more with society	.435 ^{**}	.427 ^{**}	.464 ^{**}	.432 ^{**}	.491 ^{**}

With both the two self-confidence variables, there are however substantial correlations with all these enterprise benefits (which also mutually correlate). All correlations in Table 6.5 are highly significant, with the number of participants being 618. Among the 133 employees, the picture is remarkably similar. The eight correlations of the four benefits with the two self-confidence variables are all between .391 and .521 among the employees.

In summary, we observe that from all three blocks of enterprise-related items, only the four direct benefits from the enterprise and the appreciation by the extended family have strong relations with both self-confidence variables in the core of empowerment. To a lesser degree, help by colleagues and by their children is positively correlated to the ability to solve their own problems.

The core variables of decision making for the household, including energy decisions, did not have any positive correlation with the studied enterprise-related factors. There is a negative correlation with the respect and appreciation from the partner and even stronger with the encouragement and help from the partner. The last correlation is substantially stronger for female owners than for male owners. Making household (energy) decisions together coincides with best scores on partner appreciation and help.

Regarding empowerment in the social context, we conclude that the role of energy in employment in the street food sector is not relevant, but that instead, peoples' ability to make their own decisions, as well as the appreciation and support that their families and peers provide them is important for the self-reported empowerment. The lack of differences between empowerment of women and men in this sector may suggest that women and men that operate in the sector have similar experiences, or that questions were not sufficiently discriminating between women and men. Crucially, however, is that the large participation in the sector by women can create serious empowerment 'wins' by targeting the street food sector as a whole.

6.3.3 External factors

We have discerned four groups of factors that could influence the core items and supportive aspects of empowerment: characteristics of the person, the household, the enterprise and the society.

Personal characteristics

Figure 6.8 and 6.9 shows that males are overrepresented among the youngest categories (-.175, sig .000, n=751). Interestingly, the females in our sample were across the board higher educated than the men (-.145, sig .000, n=751). This is especially visible in their share among respondents with secondary education.

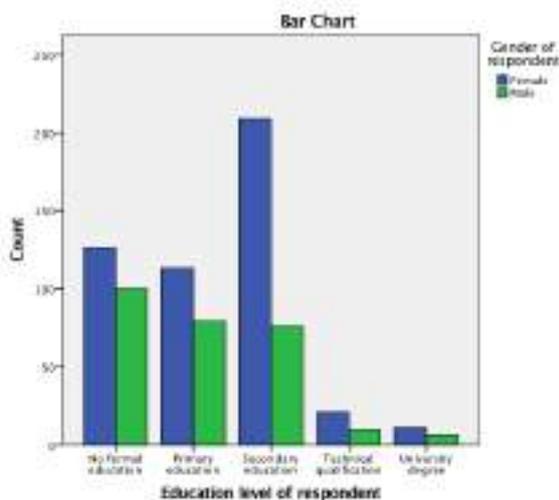


Figure 6.9: Education related to gender

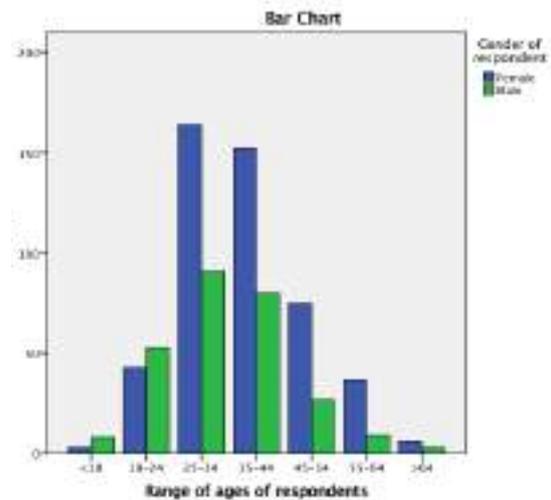


Figure 6.8: Age related to gender

Analysis found positive correlations between *age* and the two self-confidence indicators: .137, sig .001, n=618 with “I can solve my own problems” and .115, sig .004, n=618 with “I set my own agenda”. Note that while these are statistically significant, they are not very strong. Similar is the relation with the question who makes the important decisions in the household (-.122, sig .003, n=616) and -.109 (sig .007, n=615) with making energy decisions. Among this subsample of owners, there is no relation between age and making enterprise decisions. The relatively large share of “deciding together” among middle-aged people can of course also reflect their marital status.

Among the employees, age relates more strongly to making decisions. Rho is -.384 with household decisions and -.338 (both n=133, sig .000) with energy decisions in the household. There are no relations with the self-confidence variables.

The other personal characteristic – level of education – showed to be not correlated to any of the empowerment indicators – this is the same among the employees. The factor of education neither correlates with any of the other support, appreciation and benefit statements, with the single exception of being encouraged and helped by children (higher education, less-strongly agreeing). Even this one correlation is just marginally significant: .082, sig .043, n=608.

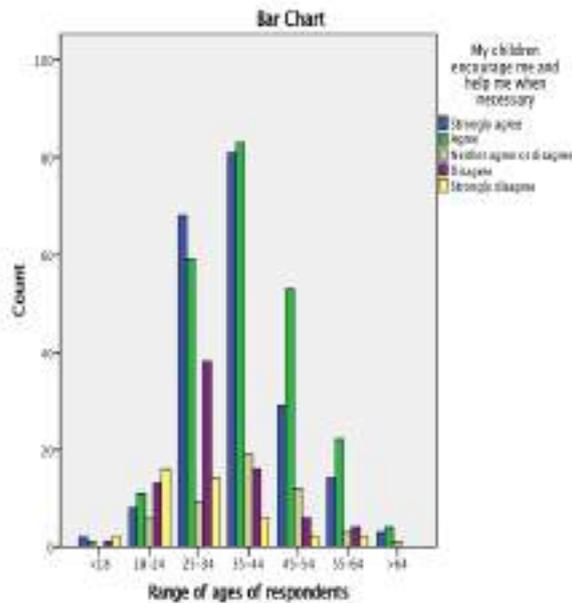


Figure 6.11: Encouragement from children and age of respondent

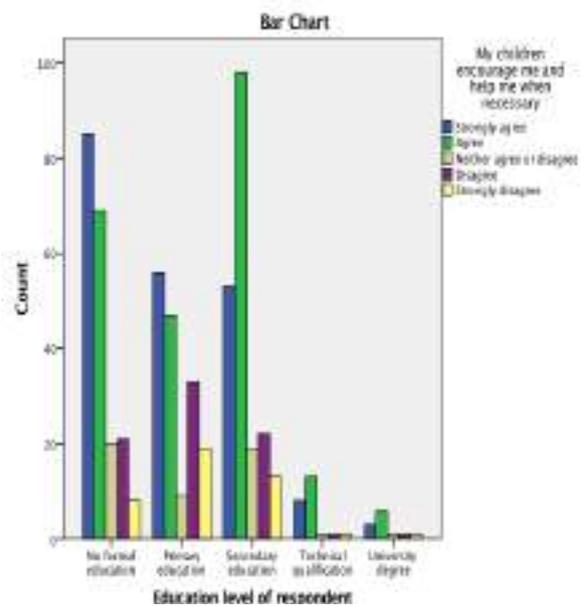


Figure 6.10: Encouragement from child and education level of respondent

The age variable shows more correlations with these statements. Lower age correlated negatively with encouragement and help from partners (-.085) and children (-.173 – see Figure 6.10), but positively with help from colleagues (.138), and the enterprise contributing to more control over life financially (.162) and to more control over life in general (.180).

Household characteristics

In terms of household characteristics, we determined marital status and whether they are the main breadwinner in their household. Divorced and widowed people are normally also the breadwinners in the household. In our sample, only 4 of the divorced and 4 of the widowed respondents are male.

Table 6.6: Marital status and being breadwinner in the household

		Are you the main breadwinner in your household?		
		Yes	No	Total
Marital status of respondent	Single	163 (77%)	48 (23%)	211
	Married	272 (77%)	79 (23%)	351
	Divorced	25 (96%)	1 (4%)	26
	Widow	24 (83%)	5 (17%)	29
Total		484 (78%)	133 (22%)	617

When we simplify the marital status into single or married, there is overall no correlation with being the breadwinner or not (Rho =.027), however if we split into male and female subcategories, the picture looks different.

Table 6.7: Marital status, being breadwinner and gender

Gender of the Owner			Are you the main breadwinner in your household?		Total
			Yes	No	
Female	Single-Married	Single	149 (83%)	29 (17%)	178
		Married	150 (71%)	62 (29%)	212
	Total		299 (77%)	91 (23%)	390
Male	Single-Married	Single	63 (72%)	25 (28%)	88
		Married	122 (88%)	17 (12%)	139
	Total		185 (81%)	42 (19%)	227
Total	Single-Married	Single	212 (79%)	54 (20%)	266
		Married	272 (77%)	79 (23%)	351
	Total		484 (78%)	133 (22%)	617

Among the female respondents there is a positive relation (.153, sig .003, n=390) between being single and being the breadwinner, while among the males this relation is negative (-.203, sig .002, n=207). Regardless of these differences, in all subgroups, a large majority of the interviewed workers in the street food sector are also the main breadwinners in their households, indicating the great importance of these enterprises.

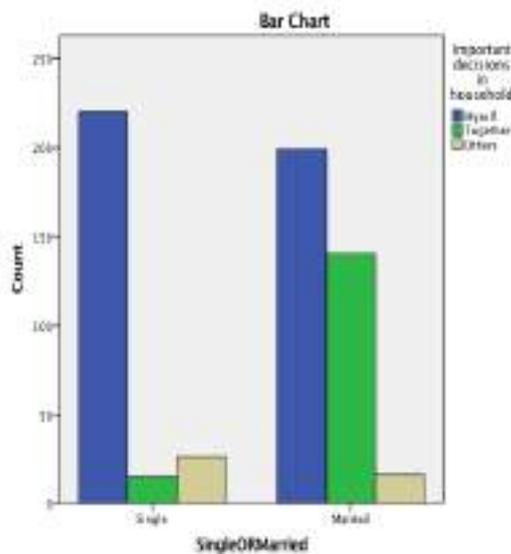


Figure 6.13: Marital Status and household decisions

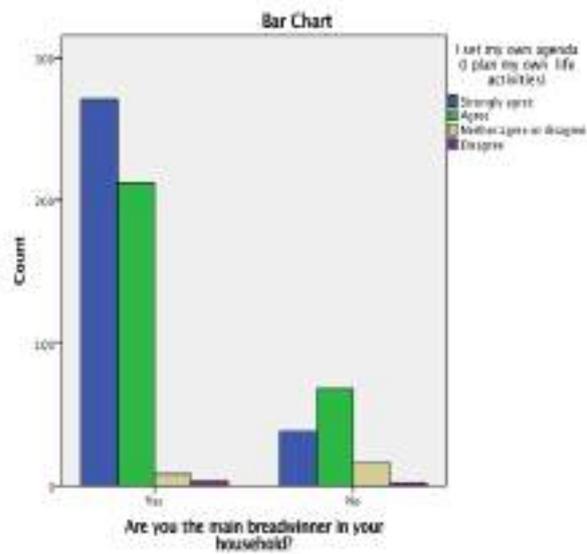


Figure 6.12: Breadwinner and agenda setting

Being the main *breadwinner* in the household is related to the two self-confidence items, with setting their own agenda .229 (see Figure 6.12) and with being able to solve own problems .140 (both sig .000, n=618). With making the important decisions in the household, there is a strong relation of .440 (sig .000, n=616). With making the energy decisions in the household, the correlation is somewhat lower (.389, sig .000, n=615). With making important purchasing decisions in the enterprise (.081, sig .044, n=614) the correlation is much lower and barely significant. These findings suggest that single women are necessarily more empowered when it comes to making decisions in the household and setting one's agenda.

At the same time, however, we found that being single or married is unrelated to the two self-confidence items. With all of the three decision-making items, there is a positive relation – with making household decisions .257

(sig .000, n=616), with energy decisions .202, sig .000, n=615) and with enterprise decisions .125, sig .002, n=614). This result follows the logic that married people can better consult with their partners about their decisions, and owners of an enterprise, like in our subsample, will do so a bit less for the enterprise than for the household.

Enterprise characteristics

We included a relatively large number of factors as relevant enterprise characteristics: the degree of formality of the enterprises, the form of accommodation, the number of employees, the gender shift of ownership, and the energy source used for preparing the product. Among the 133 employees, none of these variables have significant relationships with the self-confidence and decision-making variables. Therefore in this section we present the relationships among the 618 owners only.

Whether the enterprise is informal, semi-formal or formal is unrelated to the two self-confidence items and to all three items of decision-making. Also, with the other statements on appreciation, support and enterprise benefits there are only few, rather weak, but just statistically significant relations:

- The more formal (paying fees, licenses and taxes) the more strongly the enterprise owner agrees with appreciation by extended family (-.081, sig .044, n=613);
- The more formal, the less help the enterprise owner receives from colleagues (.081, sig .043, n=617); and
- The more formal, the more confident the enterprise owner is in setting their own agenda and planning their own life activities (-.081, sig .043, n=618).

While many government policies are directed towards increasing the degree of formality of the enterprises, the data suggests that ‘empowerment’ alone would not be a good reason to justify those policies.

The next variable tested is the kind of *accommodation* that the enterprise uses. From left to right, the kind of accommodation improves from very impermanent and basic to more permanent and attractive. However, the relationship with the self-confidence factor ‘set own agenda’ is positive (.209, sig .000, n=616), implying that those with ‘better’/more public and attractive types of accommodation agree somewhat *less* strongly with the statement: “I set my own agenda (I plan my own life activities)

Table 6.8: Relationship between nature of accommodation and setting own agenda

		What description is most accurate for your enterprise?						Total
		Space in, close or in front of own home?	Space in someone else’s home?	No structure in a public space (e.g. blanket, mat)	Informal mobile stand or structure in a public space (e.g., cart, trolley, table)	Allocated formal permanent stand or structure in public space)	Own formal permanent structure	
I set my own agenda (I plan my own life activities)	Strongly agree	65 (10.55%)	87 (14.12%)	46 (7.47%)	43 (6.98%)	41 (6.66%)	25 (4.06%)	307 (49.84%)
	Agree	35 (5.68%)	28 (4.55%)	36 (5.84%)	77 (12.5%)	72 (11.69%)	32 (5.19%)	280 (45.45%)
	Neutral	6 (0.97%)	3 (0.49%)	6 (0.97%)	5 (0.81%)	2 (0.33%)	2 (0.33%)	24 (3.90%)
	Disagree	2 (0.33%)	0	1 (0.16%)	1 (0.16%)	1 (0.16%)	0	5 (0.81%)
Total		108 (17.53%)	118 (19.16%)	89 (14.45%)	126 (20.45%)	116 (18.83%)	59 (9.58%)	616 (100%)

Our analysis found no relation with the other self-confidence item, nor with any of the three decision-making items. Among the appreciation factors none relate, while among the support factors just that of encouragement and help by children (.082, sig. .043, n=606) relates, thus there is a bit less help when having better accommodation. Among the enterprise benefits, we see that better accommodation correlates with somewhat less strongly agreeing with control over life financially (.153), control over life (.140), being more confident at home (.157) and more engaging with society (.129) – all significant, n=616. In other words, 'better' accommodation correlates somewhat with assessing the benefits of the enterprise and support from family, and colleagues to a lesser extent.

In the qualitative data, interviewees often stated that they would like to improve their accommodation to make it more attractive to customers. It is possible that colleagues offer more support to enterprises that have less attractive accommodation and that as an enterprise improves, they receive less support from colleagues and competing enterprises.

The *size* of the enterprise (measured in number of employees) is not related to any of the five core empowerment variables. With the other variables, a bigger size correlates with being more respected by a partner (-.102, sig .011, n=610), more confident at home (-.084, sig .038, n=617), and getting more encouragement and help from children (-.103, sig .011, n=617), but less help from colleagues (.091, sig .023, n=617). All in all, one can conclude that size makes less of a difference for empowerment than could be expected, yet it affects the way others respond to the enterprise. A special variable is the *gender shift of ownership*, or more specifically, whether there has been a shift from male to female ownership or the other way around.

As Figure 6.14 shows, there is no relationship with who makes important decisions in the household (Rho is even only .006), nor with the other two decision-making items. With the two self-confidence variables, there are negative correlations, indicating that at the female take-over side, one is a bit less strongly agreeing with setting their own agenda (-.137) and being able to solve their own problems (-.090). There are no relations with the appreciation factors. With the support items, only the encouragement and help from children is somewhat related (.134, sig .001, n=608). With the four benefits of the enterprise, the relations are in the other direction; at the female take-over side, one agrees a bit less strongly to: control over life financially -.132, over life in general -.107, confidence at home -.143 and engaging with society -.090 (all significant, all n=618). There are not many differences with the relations with the gender of the present owner.

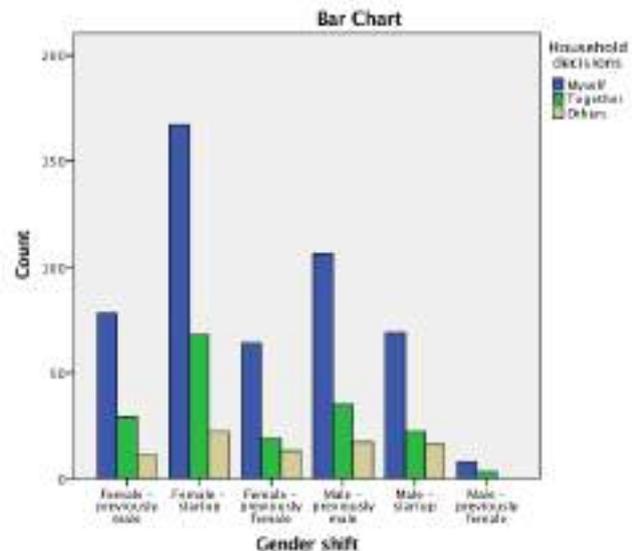


Figure 6.14: Gender shift of ownership and household decisions

Figure 6.15 shows the energy source that is used to prepare the product is ordered from modern to traditional sources. It has, however, no correlation with the two self-confidence items. The correlations with the three decision-making items are not significant either. However, when we do not look at the ordinal scale, but just focus on electricity users, we see that they less often make the decisions on their own than the ones using other forms of energy sources. Among the electricity users, 78% take enterprise decisions on their own (82% of total sample), 52% take energy decisions on their own (69% of total sample) and 58% decide themselves on important household decisions (68% of total sample).

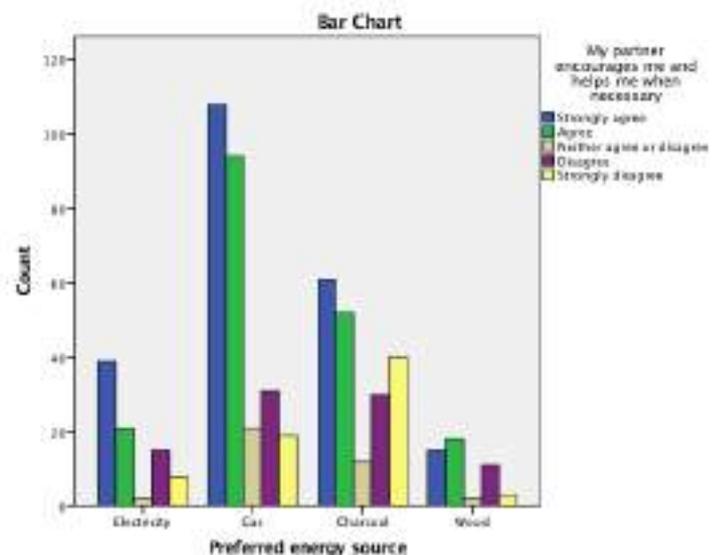


Figure 6.15: Preferred energy source and help from partners

The energy source used does not correlate with all but one of the enterprise-related factors. Only the encouragement and help from the partners is related (.133, sig .001, n=602), indicating that partners are more inclined to help when more modern energy sources are used – this is even a bit truer when the respondent is female (.150).

Social characteristics

An important aspect of the context of empowerment can be given by government regulations. In our survey, only the question was asked whether *local regulations* were a barrier to start the enterprise. Of the 618 owners, this was mentioned by 76 (12%). This does not correlate with any of the five core empowerment items and only with two of the other factors. Mentioning local regulations as a barrier coincides with somewhat less impact of the enterprise on being respected by the partner (.094) and being encouraged and helped by the children (.137).

This is not to say that regulation does not affect enterprises in the street food sector. However, based on the responses to this survey, it did not affect their empowerment apart from being a barrier to start an enterprise.

Another governance aspect is whether the respondent received a basic energy subsidy for their household. This question was only relevant for the South African respondents, as in the two other countries the system is absent. Among the 159 (59%) South African respondents that receive a domestic energy subsidy, many use this energy for their business as well as their household, for instance when preparing food for their enterprise at home or for refrigerating and storing stock for their enterprise at home. Receiving such a subsidy relates positively with making the important household decisions themselves (.151, sig .034, n=198), even more with making energy decisions at home (.291, sig .000, n=198), but negatively with making purchasing decisions in the enterprise (-.158, sig .028, n=198). The correlation with the two self-confidence items is also negative. With “I can solve my own problems” it is -.233, sig .001, n=198, and with “I set my own agenda”, it’s -.193, sig .006, n=198. A background factor here to understand this might be that only very poor families qualify to receive the subsidy and their state of poverty may influence low-self-confidence whereby they are not able to make their decision regarding ‘setting their own agenda’ and ‘solving their own problems’. Among the employees (just 72 in the South African subsample) there are similar correlations, though with this small number, not significant. Significant are those with own agenda setting (-.277, n=72, sig .019), household decisions (.432, n=72, sig .000) and energy decisions in the household (.556, n=72, sig .000).

Societal, cultural, economic and governance context variables are accumulated and shown by country. The fact that so many factors can work together in explaining differences between countries can make the interpretation of those differences quite challenging. Also, it is not possible to rank the three countries in an ordinal way. We can statistically (with for instance Pearson Chi-Square) see whether the differences between the countries are statistically significant. With all of the core empowerment factors and enterprise characteristics, the differences between countries are statistically significant. With the item “who makes the important decisions in the household” the significance of Chi-Square is .001. While coincidentally in this case, the three countries seem to be nicely ordered, as can be seen in the figure below. We can illustrate what this means in terms of Spearman’s Rho: -.161, sig .000, n=616. In this instance, more South African respondents make important decisions in the household on their own compared to Senegal and Rwanda. The other two decision-making variables show less relationship with the country of the respondent.

The overall significance of the Chi-Squares illustrates that the differences among social factors that are gathered in the variable country, have an important relationship with the empowerment variables, but do not reveal which aspects of country-specific circumstances together produce this. Here we will just mention some interesting observations from the country comparisons among the empowerment variables.

A first observation is that in Senegal there are many more respondents that are neutral or negative about the two self-confidence statements than in the other two countries. Also, the positive answers in South Africa are less strong than in Rwanda. Among the appreciation items, there are no striking differences. Among the support items respondents from Senegal more often expect not much help from their colleagues. This appears to be in contrast with the somewhat more

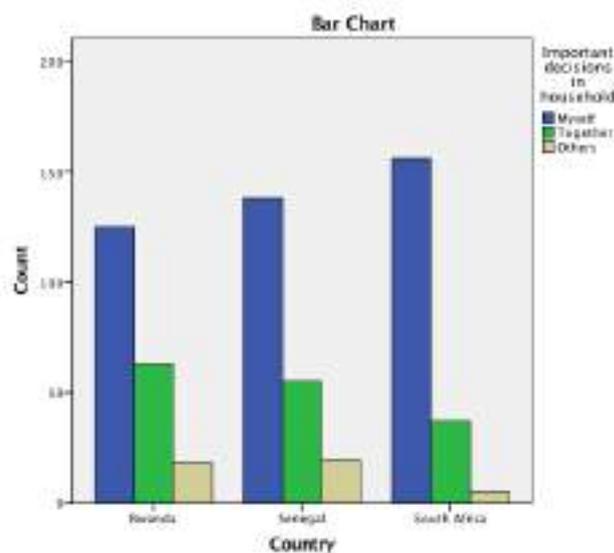


Figure 6.16: Country and household decisions

neutral/negative responses to the self-confidence statements. While overall men agree a little bit stronger than women on “I can solve my own problems” (Rho .072), that is more so in Rwanda (-.121) and not in Senegal (.009). With “I set my own agenda”, also male respondents agree more strongly (Rho -.152), this time more so in South Africa (-.200) and not in Senegal (-.022). In Senegal, there are more people neutral or disagreeing with the two self-confidence statements, but without differences between women and men. The two self-confidence variables are clearly correlated (.417), however, this correlation is stronger in South Africa (.603) and weaker in Senegal (.191).

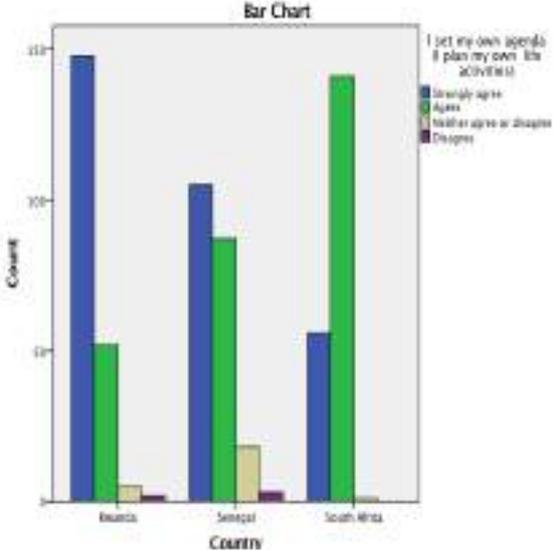


Figure 6.20: Solving own problems, by country

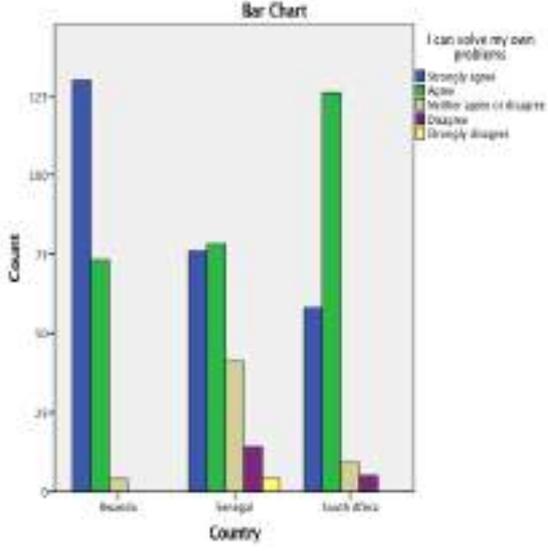


Figure 6.19: Setting own agenda, by country

While making the important household decisions is overall unrelated to gender (Rho -.009), that seems not completely true for Senegal where men relatively often claim to do it themselves a bit more than women (-.131, but statistical significance is with the smaller number of just 212 respondents, only .058). In general, it is in South Africa that most people claim to make these decisions themselves. In Senegal and even more in Rwanda, more people state to make decisions together or following those of others, including partners.

As for the energy decisions in the household, again, though less clearly, in South Africa relatively more people claim to make these decisions themselves compared to Senegal and Rwanda. The small and hardly significant correlation overall that women claim this a bit more often than men (.078, sig .054) is not visible at all in South Africa (-.017). Making the important purchase decisions in the enterprise does not relate at all with the gender of the owner and shows little difference among the three countries.

While overall (Rho .041), and in two of the three countries the enterprise giving appreciation by the partners is unrelated to gender. In Rwanda, there seems to be a positive correlation (Rho .172, sig .015), implying that men disagree somewhat more often than women. Disagreeing with the statement is also in general more frequent in Rwanda than in the other two countries. With the statement on the appreciation by the extended family, the answers are not really different between countries and between sexes. Vast majorities claim that the enterprise indeed gives them more appreciation from their extended family.

There is overall a negative correlation between making household decisions alone and appreciation by the partner because of the enterprise (-.149). This negative relationship is however hardly visible in South Africa (-.076) and not at all in Senegal (.048). It rests completely on the answers from Rwanda (-.343, sig .000).

Regarding the relationship between making the decisions in the enterprise and appreciation by partners, the results are quite different per country. In Rwanda, there are relatively the most people who disagree, but also the most that strongly agree. While overall there is no correlation between these two variables, there actually is a positive correlation in Senegal (.187, sig .006), and a negative one in Rwanda (-.219, sig .002) between making enterprise decisions themselves and agreeing with the appreciation by partners statement. The relationship between claiming that the enterprise makes them more respected by the partner and gender is absent overall, and in Senegal and South Africa. However, in Rwanda there is a positive relationship (.172, sig .015), implying that females agree somewhat stronger with this view.

Also among the *support variables*, there are some interesting differences between the countries. In Rwanda (42%), there are relatively many that disagree with the statement “My partner encourages me and helps when necessary”, much more than in the other countries (both South Africa and Senegal 18%). There is no relationship with gender. Neither are there relationships with the two self-confidence variables.

In the overall analysis, we saw that there is a negative relationship between making decisions in the household alone and partner help (-.256). Specifying this per country, this negative relationship is strongest in Rwanda (-.476, sig .000) and also present in South Africa (-.205, sig .004), but absent in Senegal (-.049, sig .478).

Overall there is also a negative relationship between partner help and making decisions in the enterprise (-.309, sig .000) – this is equally strong in all three countries. With making energy decisions in the household, there is also an overall negative relationship (-.248), but again this relationship is absent in Senegal and most strong in Rwanda (-.484).

When support by the children is concerned, respondents from Rwanda disagree more often. In South Africa, there are only few who disagree. There is a clear overall correlation with gender (.198, sig .000), implying that female owners get more support from children, however, by countries this is not true for South Africa (.018), just true for Senegal (.188, sig .006) and most true for Rwanda (.286, sig .000).

There is an overall positive relationship with the ability to solve one’s own problems (.195, sig .000). However, that is not significant in Senegal, a bit weaker than average in Rwanda (.158) and most strong in South Africa (.476, sig .000). Also with “I set my own agenda” there is an overall positive relationship, but much weaker (.085, sig .035). Again, it is absent in Senegal, and strongest in South Africa (.360, sig .000).

When help by colleagues is concerned, it is not Rwanda, but Senegal where most often people do not receive help (only a bit more than half of respondents were confident to get support when needed), which is very different for the situation in the other countries. There is no relationship when looking at the gender of the owner.

With the two self-confidence variables, there are clear relations, but very different among the countries. With “I set my own agenda (I plan my own life activities)” the overall correlation is absent (.041). However, this is an average of positive and negative correlations per country. In Senegal, the relationship is negative (-.390, sig .000), implying that people that feel more independent regarding their life planning, and expect less support from colleagues when needed. In the two other countries, the relationship is positive (.256 in Rwanda and .399 in South Africa, both sig .000), implying that expecting more support coincides with the feeling of more independence.

Overall, the three support variables are not correlated with the three decision-making variables. That situation holds also true for South Africa and Rwanda separately. However, there are small but consistently negative correlations in Senegal between the expected help from colleagues and the own decision-making regarding the household (-.153, sig .026), energy in the household (-.125, sig .069) and the enterprise (-.135, sig .043). Expecting help from colleagues seems to be associated with weakness rather than support.

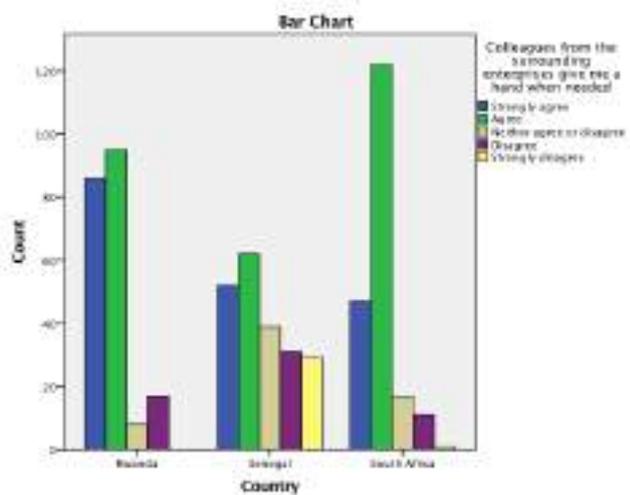


Figure 6.21: Country and help from colleagues

The somewhat special position of Senegal is also visible in the statements on the *enterprise benefits*, like giving control over life financially and control over life in general: more people are neutral or negative than in the other two countries. Even so, also in Senegal, 75% agrees that the enterprise gives more control financially and 78% with more control over life in general.

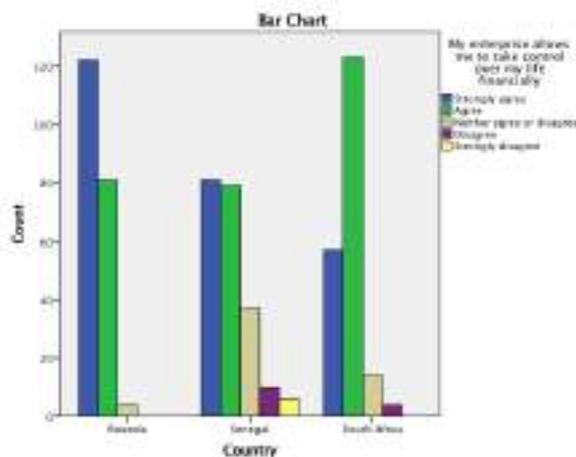


Figure 6.23: Financial control, by country

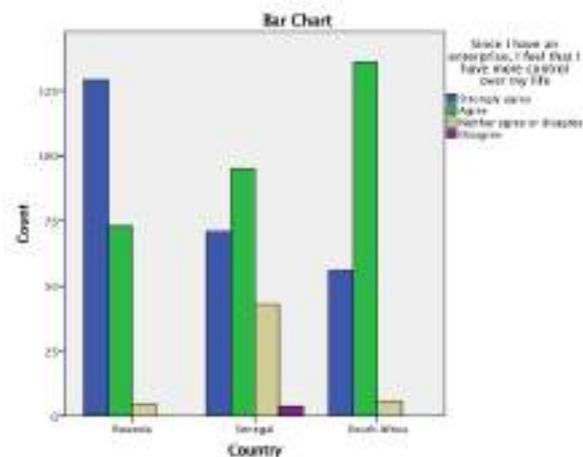


Figure 6.22: Control of live, by country

As for the relationships with the self-confidence variables, the following picture emerges. Unless otherwise stated, the correlations mentioned above are all highly significant.

Between “I have more control over my life financially” and the self-confidence variable “I can solve my own problems”, there is an overall positive correlation (.400). This relationship is present more strongly in Rwanda (.456) and South Africa (.61), but *not* significantly in Senegal (.130, sig .058). With “set my own agenda” the picture is almost similar: overall .407, Rwanda .481, Senegal .143 (significance .037), South Africa .586.

With “I feel to have more control over my life”, there is an overall positive correlation (.393) with the self-confidence variable “I can solve my own problems”. This correlation is also present, and even stronger, in Rwanda (.470) and South Africa (.674), but *not* in Senegal (.054). With “I set my own agenda” the picture is almost similar: overall .451, Rwanda .511, Senegal .179 (significance still remains an acceptable .009), South Africa .671. Furthermore, our analysis revealed a positive correlation between “having the enterprise makes me more confident at home” and “I can solve my own problems” (.390). This correlation is present in all three countries,

strongest in South Africa (.462) and Rwanda (.465) and weakest in Senegal (.257). With “I set my own agenda” the picture is an overall correlation of .513 (Rwanda .376, Senegal .472, strongest in South Africa .671)

There is also a positive correlation between “my enterprise allows me to engage more with society” and “I can solve my own problems” (.435). Again, this correlation is present in all three countries, strongest in South Africa (.539), in Rwanda (.376) and weakest in Senegal (.288). With “I set my own agenda”, the picture is similar. The overall correlation is .427 (Rwanda .290, Senegal .298, strongest in South Africa .699). All in all, this analysis shows that the high correlations between the “direct benefits of enterprise” and the “self-confidence variables” are reflected in the separate countries, but often more so in South Africa and considerably less so in Senegal.

6.4. Discussion and conclusions

In this chapter, we analysed empowerment variables that were related to direct and indirect effects of operating street food enterprises, in a context of personal, household, enterprise and social circumstances. The analyses led to the following conclusions:

Vast majorities of respondents agree with the empowerment variables. An important observation has been that positive responses to our empowerment variables were found across the entire sample, and therefore are hardly related to gender. The vast majorities also agree to the variables of appreciation, support and benefits stated, and which are related to operating the enterprise. Differences between females and males are quite small. However, women in our sample agreed somewhat more than men claiming that they receive support from their children, and men agree a bit more strongly with the mentioned benefits from the enterprise.

For all employees and enterprise owners – and especially women who dominate the street food sector in Africa – operating a street food enterprise coincides with the individual having decision-making power, self-confidence, control over finances, appreciation and support from extended family, children and partners. It is therefore imperative that local development policies do not ignore the empowering potential the sector has as a whole, including for women. Furthermore, policies and initiatives that stimulate this empowering potential of the sector could be beneficial, e.g. in relation to capacity development of entrepreneurs, access to resources, and enterprise development.

Various patterns in the interrelatedness between all these items were revealed. These include:

- The two self-confidence statements were most related to the direct benefits of the enterprise, like control over life (financially and in general) and engaging with society and with appreciation by the extended family. The indicator “I can solve my own problems” is also positively affected by the encouragement and help from children and even more so colleagues.
- Making own decisions on household matters and energy in the household is negatively correlated with partner appreciation and assistance.
- The respect and help by the partners was strongest when household decisions are claimed to be made together, rather than on their own or by others. With help by the partner, this effect is even stronger among women than among men who claim to make household decisions together, rather than on their own or by others.
- Age is positively correlated with the self-confidence and decision-making items, but just slightly, where respondents that were older scored higher on the self-confidence and decision-making variables. Being the main breadwinner, however, is somewhat more positively correlated to these items. The survey further established that respondents that were single related more strongly to statements about making decisions on their own, but that needs no interpretation in terms of empowerment, as married people simply have more opportunity to consult with a partner.

- Among the female respondents, there is a positive relation between being single and being the breadwinner of the household, among men this relationship is negative.
- The degree of formality of the enterprise and the modernity of the main energy source used have hardly any effect on empowerment and related enterprise variables; there is only a small negative correlation between the degree of development of the enterprise's accommodation and the direct benefits that are ascribed to having the enterprise.
- Comparing the three countries shows that in Senegal, relatively more people are neutral or negative on the self-confidence items, and about whether the enterprise provides them with more control over their life financially and in general. Nevertheless, overall, most responses in Senegal are positive on these items. Moreover, this is equally the case for Senegalese women and men. While the variable "country" was used to collectively acknowledge the conceptual importance of societal differences, the interpretation of these country differences should be done very carefully.

7. GENDER OF OWNERSHIP IN THE STREET FOOD SECTOR IN AFRICA

7.1. Introduction

The urban street food sector in Africa is thriving. The increase of jobs in the formal sector of the economy does not make the street food sector obsolete, but actually increases its importance, for instance providing meals for an increasing number of busy office workers. Also, a vast majority of the street vendors has the ambition to develop their business further (Knox et al. 2018). But what if the enterprises evolve into ‘serious businesses’? Would that not create the risk that more male entrepreneurs would get interested in the sector and drive out female owners, for instance because they can get easier credit facilities, as discussed by Narain (2009). The 2017-2018 data on 751 enterprises in Senegal, Rwanda and South Africa enable us to see whether this male takeover is a real and justified concern or not, and whether there is a relationship with the modernisation of the sector.

The leading research question of this chapter is *“Is modernisation of the street food sector leading to a decrease of the proportion of female ownership?”*. The reporting on the evidence found is guided by three sub-questions: i) what is the proportion of female-male ownership in the urban street food sector in the three countries of investigation and how does it develop?; ii) To what extent does the proportion of female-male ownership correlate with the degree of development of the enterprises?; iii) To what extent does the previous change in gender of ownership correlate with the degree of development of the enterprises?

7.2. Ownership by gender

In the three countries where our survey was conducted, **the majority in the sample were women (63%); however, while the difference for Rwanda and Senegal is negligible - 53% and 55% of women owners respectively, in South Africa women dominate the market with an ownership share of 79%**. Whereas the sampling was random as for gender (not for location), these percentages reflect the gender divide at the locations where the interviews took place: four places in Rwanda and two cities in Senegal and South Africa each.

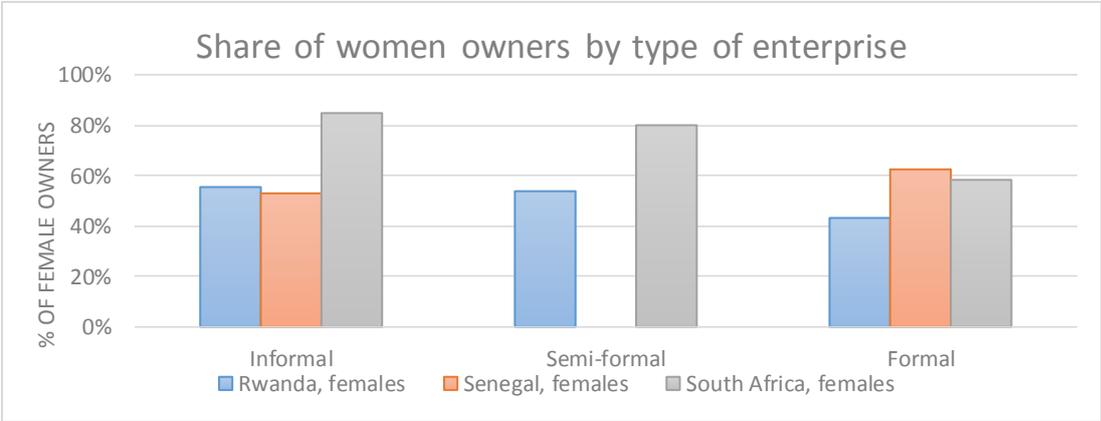


Figure 7.1 Share of women owners by type of enterprise

Figure 7.2 shows that while **in Rwanda the share of ownership by women decreases slightly with increasing formalisation, in Senegal it’s the other way around. South Africa shows a trend similar but more accentuated to Rwanda**, with the share of women owners strongly decreases with increasing formalisation. This aspect confirms that the street food sector in South Africa is more gendered than in the other two countries when it comes to implication of men in more formal - and likely more profitable - businesses.

7.3. Age of enterprises by gender

When the age of the enterprise - the period that the enterprise has been under the present owner - is brought into consideration, **male-owned enterprises are somewhat younger in all three countries**. Could these numbers indicate a gradual male take-over or the idea that males do not stay as long as women in the street food sector?

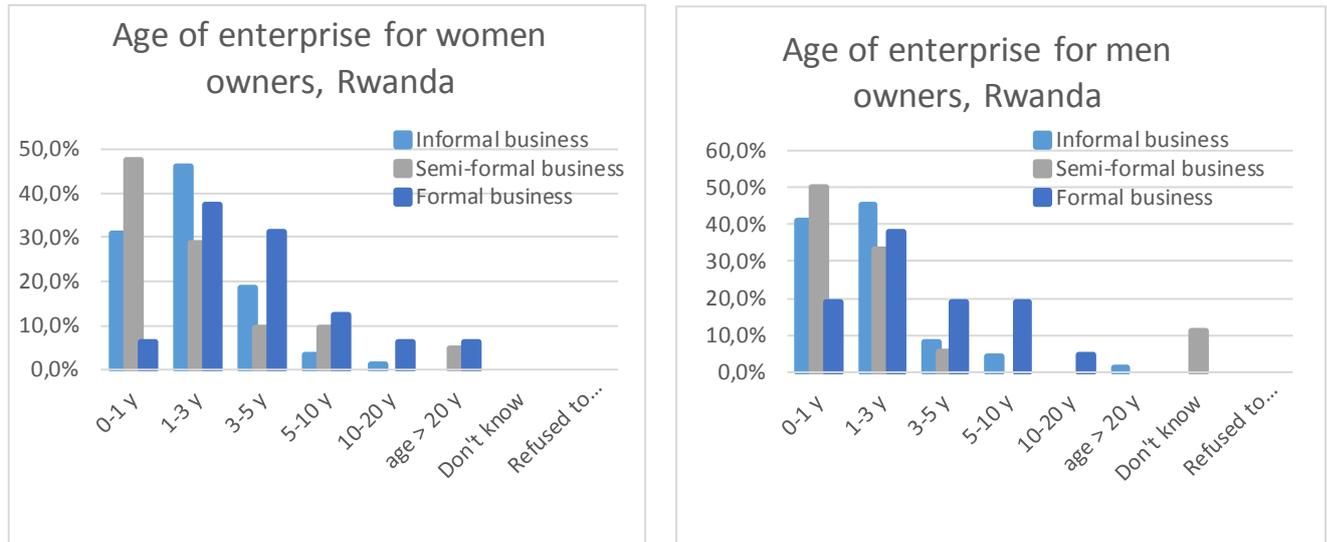


Figure 7.2: Age of enterprise by gender of owners, Rwanda

Figure 7.3 shows how **most businesses in the street food sector in Rwanda are less than 3 years old, with men have a higher share of new businesses than women, especially in the formal sector; men, however, started to disengage after 3-5 years of activity, while women continue for longer.**

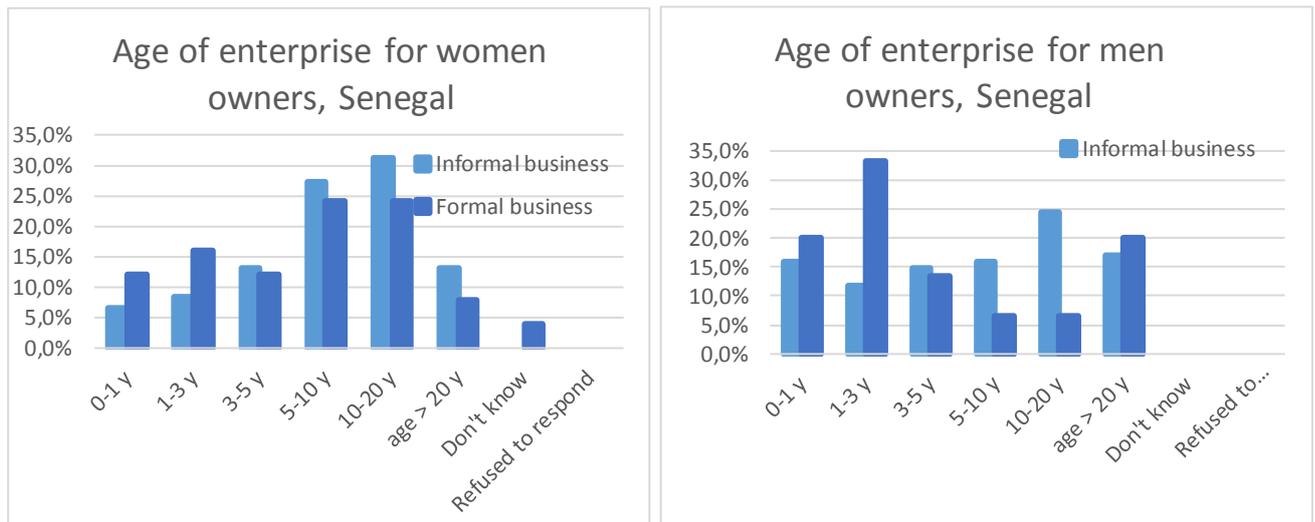


Figure 7.3: Age of enterprise by gender of owners, Senegal

Figure 7.4 showing results from Senegal, draws a completely different picture than Rwanda, with a large share of businesses in the range of 5 to 20 years of activity, with a tendency for women to run businesses for a longer time than men, especially in the formal sector.

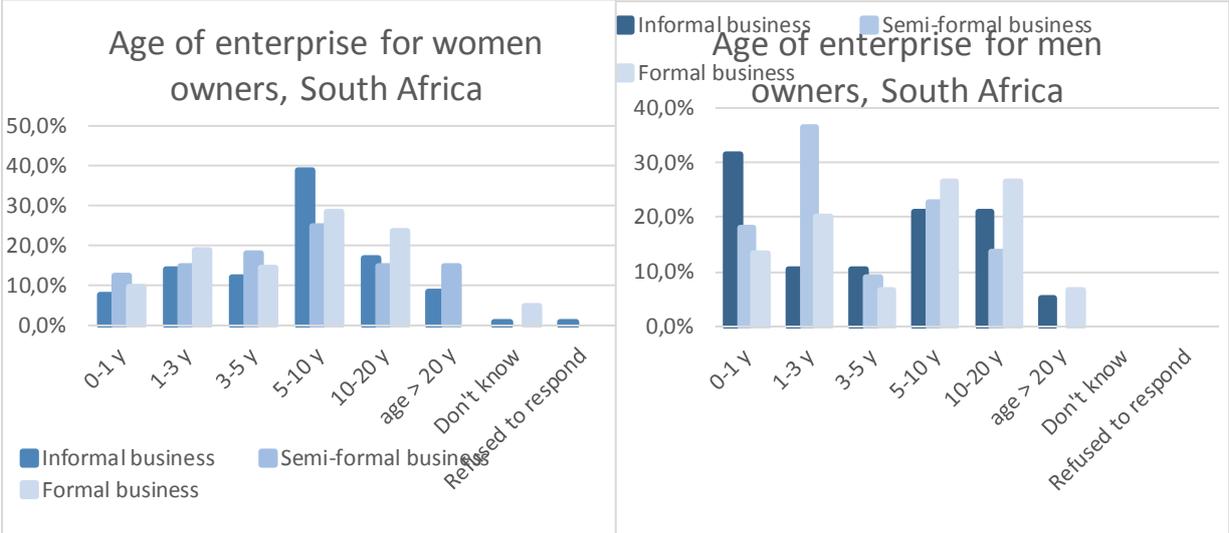


Figure 7.4 Age of enterprise by gender, South

South Africa presents a different situation to Rwanda and Senegal, especially for women: **the share of businesses of different age is equally distributed across the respondents, with a slight prevalence of businesses in the range 5-10 years. Formalisation increases with the age of the business, and the level of informality, especially during the first years of operations, is higher among men than women.**

7.4. Size of businesses by gender

As mentioned above, **as many as 75% of the interviewees were also owners of their businesses**, and 6% were co-owners. Only in Rwanda, the males tend to be working as employees more than the women, with 22% of men and 12,5% of women work as employees. In the other two countries, there is no difference at all.

Another interesting finding is that **it is just as often that male employees have a female owner and female employees have a male owner. In South Africa, there is a slight difference.** There are 6 more male owners than male interviewees (workers in the street), indicating that slightly more women work for men than men work for women.

The next question would then assess if *“would the bigger enterprises be predominantly male-owned?”* Such a situation could also increase the risk that economic development would lead to decreasing the position of women. At first glance, there does not seem to be such a relationship.

Looking at the figures, it proves that **most enterprises have just one worker, the owner (226) or two, including the owner (202), or three (115) or four (81). Together these make up for 83% of the enterprises – of them, 64% are female-owned. Then there are also 115 enterprises with 5-15 people working; among these the proportion of female ownership is precisely equal: 64%.** The last category are the enterprises with more than 15 people; there are only 9 enterprises in our sample, but just 2 of them are female-owned. **The conclusion is that the female majority remains intact up to a quite considerable size of 15 workers – beyond that size, men start to dominate.**

7.5. Age of business by gender

The age of owners also differs by gender, level of business formality, and country. As shown in Figure 7.6, Figure 7.7 and Figure 7.8, **Rwanda is the country that has owners in the youngest ages group (18-24), numbers peak at the age 25-34 (45,2% of the total), and then decline steadily. This is not the case for Senegal and South Africa, where most owners are in the range 35-44 (34,9% and 37,6% respectively) and in general terms, engage later and stay in the business until late.**

The share of formality over informality remains fairly constant for the three countries, with a slight increase among businesses run by people above 44 years old.

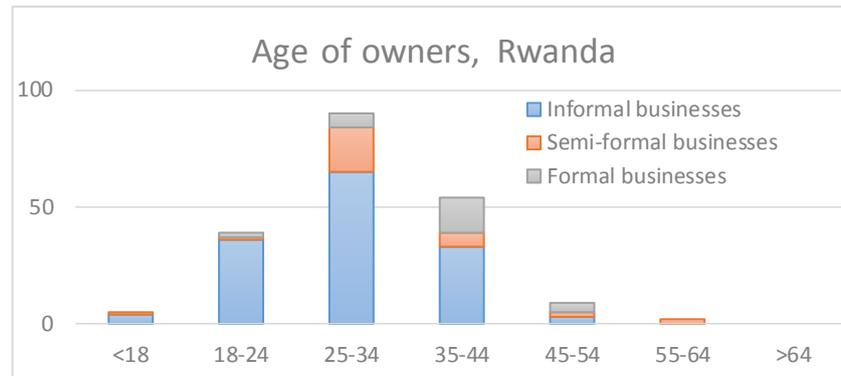


Figure 7.5: Age of owners, Rwanda

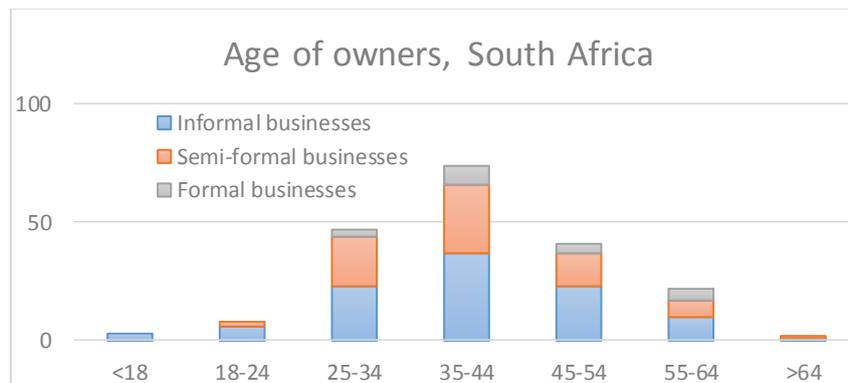


Figure 7.6: Age of owners, South Africa

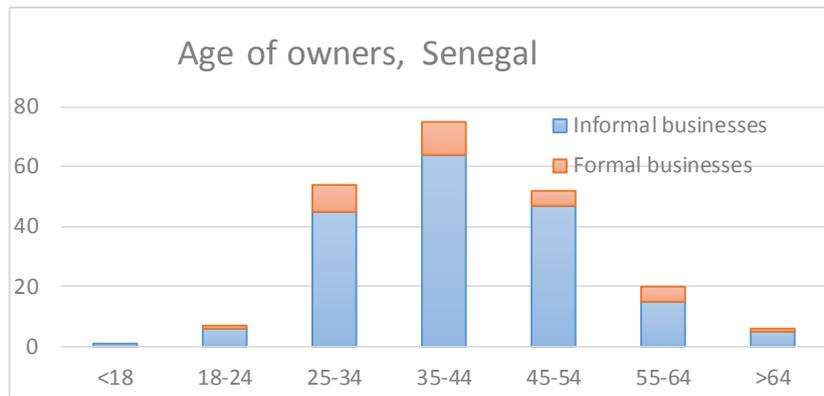


Figure 7.7: Age of owners, Senegal

Rwanda's disaggregated data by gender shows that women are more engaged at all levels when at the age 25-34, then their engagement progressively decreases over time, with formal businesses being the ones with the highest percentage of women in the range 45-54, as shown in Figure 7.9. This indeed seems to suggest **that informal businesses owned by women in Rwanda are a common entry into the trade at a younger age, then owners tend to formalise their businesses.**

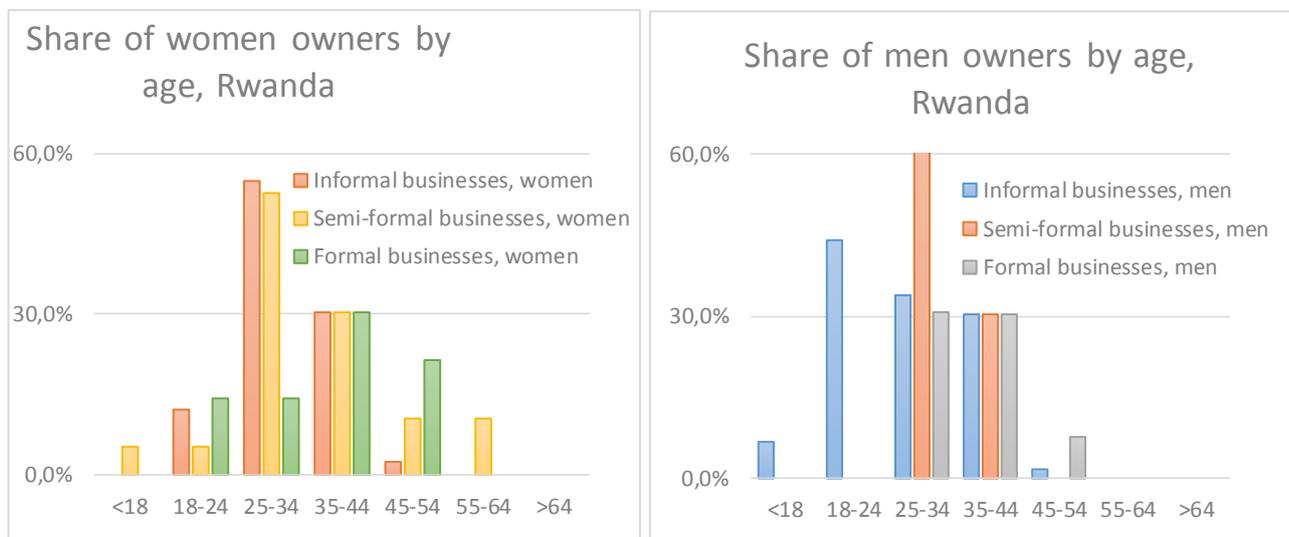


Figure 7.8: Age of owners, by gender, Rwanda

Figure 7.8 also analyses the situation for male owners in Rwanda, which shows no engagement at semi-formal and formal level until the age range of 25-34. **Men seem to engage slightly more at an earlier age than women, and rather disengage earlier in time. This can be interpreted that men take earlier and greater risks with starting new businesses and move on to other ventures earlier too,** as they grow out of their current business and the socio-economic conditions allow them to do that.

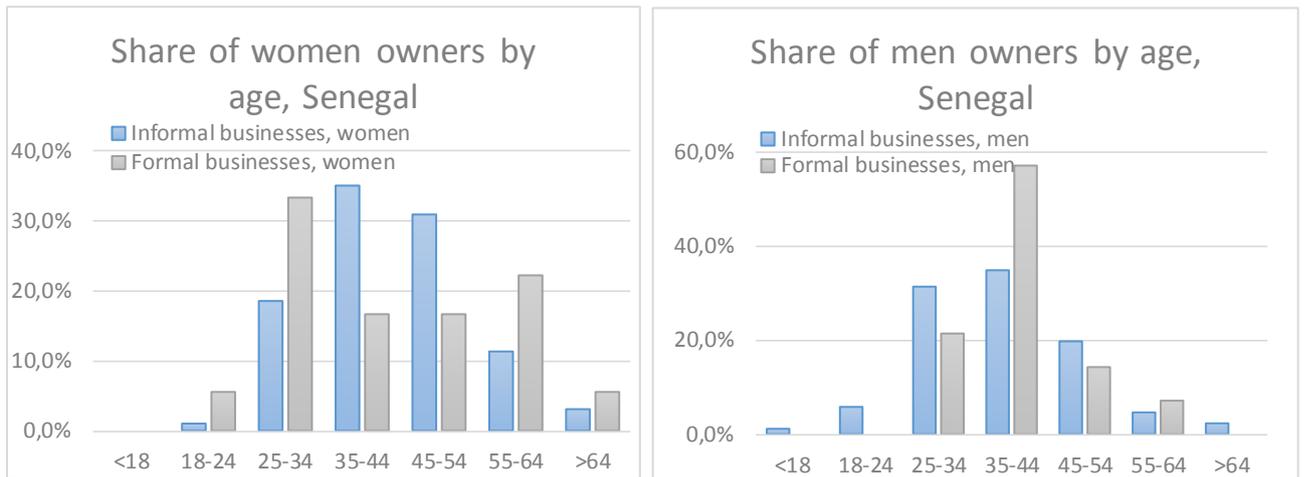


Figure 7.9: Age of owners, by gender, Senegal

Figure 7.10 for Senegal shows that among women, the share of informality over formality increases with the age of the owners until the range 35-44, then decreases again. However, among men the share of formal activities increases steadily with the age.

In South Africa, Figure 7.11 provides similar trends to the other countries, but with fewer disparities among men and women. Also, in the range 35-44, male-run businesses seem to have a higher level of formality than women-run ones. Once again, men engage earlier in age, and quit the sector before women.

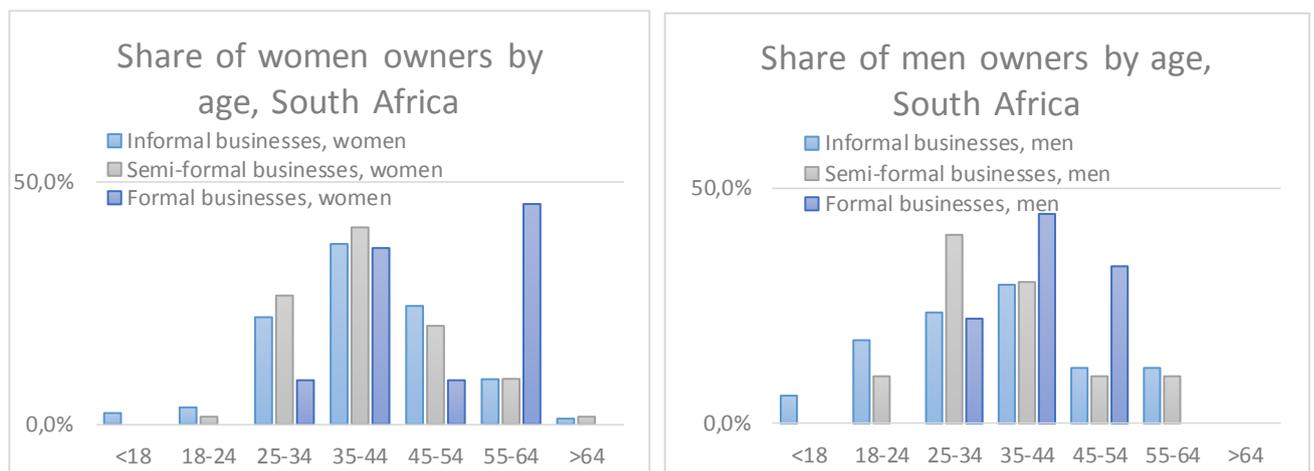


Figure 7.10: Age of owners, by gender, South Africa

Unlike the other countries, the highest proportion of female owners in South Africa are between the age of 55 and 64 – this may be as a result of retirement-age women looking for a source of income to supplement their meagre pension and to support their grandchildren.

7.6. Level of education by gender

In South Africa, the average level of education is much higher than the other two countries, with most owners having a secondary education (73% in the informal sector, 68% in the semi-formal sector) and some also a university degree, especially in the formal sector (30%). In Figure 7.12, aggregated data for the three countries shows how in Rwanda, men tend to have a higher level of education than women, while in Senegal and South Africa there's a certain balance between the two. It is clear once more that South African owners have the highest level of education, followed by Rwandan and Senegalese.

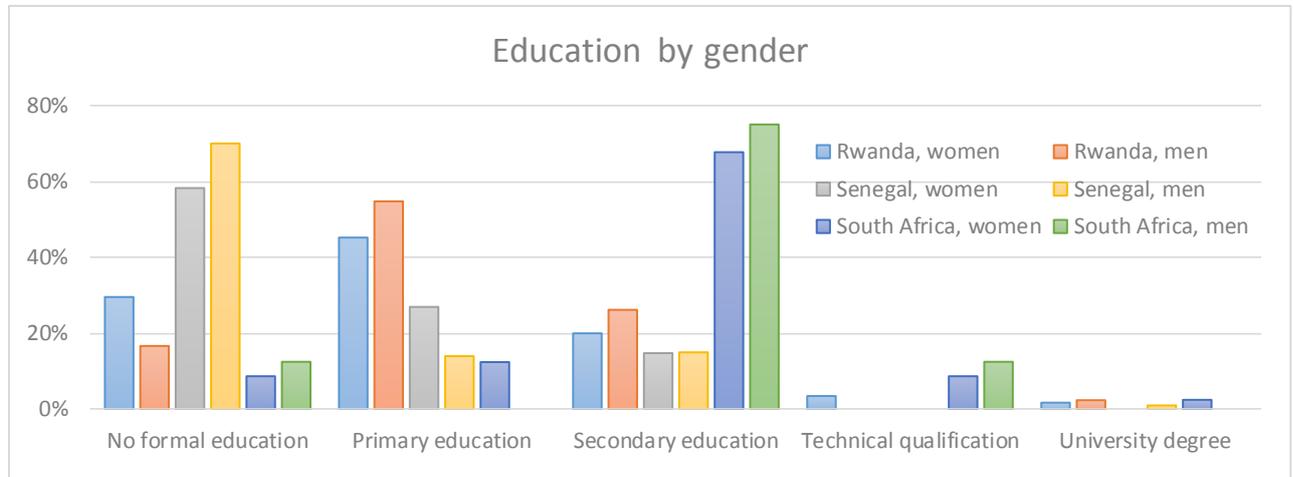


Figure 7.11: Education by gender

7.7. Marital status by gender

Across all the three countries, Figure 7.13 illustrates how the share of single owners in the formal sector is much lower than for informal and semi-formal ones. The semi-formal sector is also the one with the highest share of single owners, while divorced and widows are not common among the respondents in the different types of businesses. A correlation between formalisation, security and success could exist.

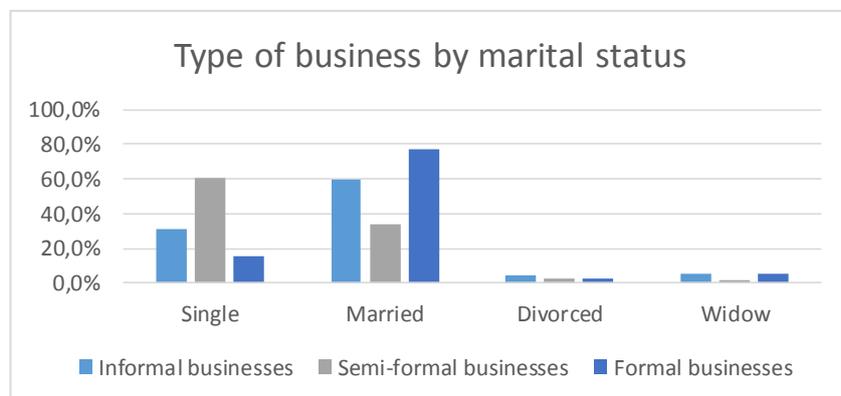


Figure 7.12: Type of business by marital

7.8. Location of business by gender

Looking at the relationship between the permanency and public character of the enterprise accommodation in Table 7.1, there is no relationship except that **the more permanent and public structures are more often male owned**. The most interesting difference is that more female owned enterprises operate from their own house, while male owned enterprises work more often at someone else's house.

		Space in, close or in front of own home	Space in someone else's home	No structure in a public space (e.g. blanket, mat)	Informal mobile stand or structure in a public space (i.e., cart, trolley, table)	Allocated formal permanent stand or structure in public space	Own formal permanent structure	Total
Gender of the Owner	Female	83 (69%)	58 (43%)	55 (59%)	104 (69%)	113 (72%)	60 (66%)	473 (63%)
	Male	38 (31%)	77 (57%)	39 (41%)	46 (31%)	45 (28%)	31 (34%)	276 (37%)
Total		121 (100%)	135 (100%)	94 (100%)	150 (100%)	158 (100%)	91 (100%)	749 (100%)

Table 7.1 : Nature of accommodation and gender of owner

		Transport hub	Market place	Market managed by municipality	Street vendor/trader in a residential district	Outside a shopping centre	Shop or restaurant	Total
Gender of the Owner	Female	181 (78%)	78 (57%)	30 (65%)	82 (62%)	35 (57%)	57 (48%)	463 (64%)
	Male	52 (22%)	59 (43%)	16 (35%)	51 (38%)	26 (43%)	62 (52%)	266 (36%)
Total		233 (100%)	137 (100%)	46 (100%)	133 (100%)	61 (100%)	119 (100%)	729 (100%)

Table 7.2: Location and gender of owner

The female ownership share is somewhat higher at transport hubs (78%) and somewhat lower at open market places and outside a shopping centre (both 57%), and especially in shops or restaurants (48%). Prevalence at restaurants could be regarded as an indication that operating from a 'real' building coincides with a somewhat declined share of female ownership.

7.9. Development of business by gender

The table below shows what proportion of the female/male owners uses traditional energy sources for thermal processing (like cooking) and modern energy sources (or both).

		Gender of the Owner		
		Female	Male	Total
Traditional energy sources	No	210 (44%)	121 (44%)	331 (44%)
	Yes	264 (56%)	156 (56%)	420 (56%)
Total		474 (100%)	277 (100%)	751 (100%)

Table 7.3 Proportions of female/male owners using traditional energy sources

		Gender of the Owner		
		Female	Male	Total
Modern energy sources	No	199 (42%)	141 (51%)	340 (45%)
	Yes	275 (58%)	136 (49%)	411 (55%)
Total		474 (100%)	277 (100%)	751 (100%)

Table 7.4 Proportions of female/male owners using modern energy sources

The use of traditional energy sources is equal between female and male owners, at 56%. However, there is some difference in the degree to which modern energy sources are used for cooking: 49% of male-owned enterprises and 58% of female-owned enterprises. In any case, it does not show that female owners lag behind in using modern energy services.

When the sources of energy are more specified, the following picture arises:

Owner	Female	Male
Gas	55%	50%
Charcoal	49%	48%
Electricity	21%	26%
Wood	9%	12%

Table 7.5 Percentages of female/male owned enterprises that use different energy sources for food preparation

Male-owned enterprises use a bit more often electricity and wood for food preparation, while female-owned ones more often use gas. There is no basis from our sample to link modern energy to current male ownership. Sources like biomass, briquettes, paraffin, kerosene and gel are mentioned far less than the ones above. Nevertheless, the four mentioned above already add up to more than 100%, indicating that many enterprises use more than one source of energy, even for the single purpose of food preparation (leaving out for instance of lighting or cooling). In Chapter 3 this is illustrated by presenting analysis showing female and male enterprise respondent's energy preferences.

In terms of equipment we see a similar picture. Table 7.6 shows the percentages of females and males using a particular device for food preparation:

Owner	Female	Male
Open fire (barbeque)	17%	19%
Coal stove	28%	24%
Gas stove	49%	42%
Electric stove	18%	11%

Table 7.6 Number of female/male owned enterprises using four main types of stoves

Not mentioned here are traditional ovens (used in 24 enterprises) and improved (17) biomass ovens, paraffin or kerosene stoves (4), deep fryers (20), gas ovens (44), rice cookers (5), electric kettles (47) and electric ovens (46). All of these are only used in less than 10% of our sample and almost all are more used in female-owned than in male-owned enterprises, leading to the conclusion that **female owned enterprises use, on average, multiple devices more often.**

7.10. Gender shift in ownership and degree of development of enterprises by gender

The gender shift in ownership was also checked by asking what the gender of the previous owner was, if there was any. Table 7.7 shows the results for the three countries. In Rwanda 36 of the female owned enterprises had previously a male owner, while only 4 of the male owned ones previously had a female owner. Also, **in Rwanda the share of newly-started female owned enterprises is bigger than that of male start-ups. This doesn't indicate a male takeover but rather a further female takeover. In Senegal, the picture is similar.** Of the female owned enterprises 25 had previously a male owner while the opposite is only true for 2 enterprises. Also, in Senegal women are overrepresented in the number of start-ups. **In South Africa again, 57 female owned businesses had previously a male owner while the opposite is true for just 5 male owned enterprises.**

Country			Gender of the Owner		Total
			Female	Male	
Rwanda	Was the previous owner (if any) of this enterprise a woman?	Yes	39	4	43
		No	36	80	116
		No previous owner	53	28	81
	Total		128	112	240
Senegal	Was the previous owner (if any) of this enterprise a woman?	Yes	24	2	26
		No	25	55	80
		No previous owner	82	52	134
	Total		131	109	240
South Africa	Was the previous owner (if any) of this enterprise a woman?	Yes	36	5	41
		No	57	24	81
		No previous owner	122	27	149
	Total		215	56	271
Total	Was the previous owner (if any) of this enterprise a woman?	Yes	99	11	110
		No	118	159	277
		No previous owner	257	107	364
	Total		474	277	751

Table 7.7: Gender of present and previous owner

All in all, we can conclude that **there is no evidence for a 'male takeover' in the street food sector of the three investigated countries (Table 7.8); in reality, the opposite happens.** This data, however, is not yet specific enough to answer the query about the fear that the modernisation of the street food sector through increased uptake of modern energy services might coincide with a relative loss of female ownership. To gain an answer to that query, other factors such as modern energy use, modern equipment, formal status and developed locations have to be taken into consideration in the next part of the analysis. In this further analysis, the results will be an overview of the three countries combined.

	Type of enterprise			Total
	Informal	Semi-formal	Formal	
Female - previously male	66	33	19	118
Female – start-up	171	53	33	257
Female - previously female	66	23	10	99
Male - previously male	111	23	25	159
Male – start-up	72	13	22	107
Male - previously female	3	4	4	11
Total	489	149	113	751

Table 7.8: Degree of formality of enterprises per category of gender shift of ownership

Table 7.9 shows the relation between gender shift and accommodation. Here, **the male takeovers prove all to be at the more public and more permanent side of the continuum. Of the male takeovers, 8 of 11 have a permanent structure. However, the second largest proportion of permanent structures (41%) is among the female takeovers.** Overall there is no correlation between the variables.

	Space in, close or in front of own home	Space in someone's home	No structure in a public space (blanket, mat)	Informal mobile stand or structure in a public space (i.e., Cart, trolley, table)	Allocated formal permanent structure in public space	Own formal permanent structure	Total
Female - previously male	25	19	10	16	38	10	118
Female – start-up	39	24	34	66	52	41	256
Female - previously female	19	15	11	22	23	9	99
Male - previously male	21	53	21	28	18	18	159
Male – start-up	17	24	17	16	21	11	106
Male - previously female	0	0	1	2	6	2	11
Total	121	135	94	150	158	91	748

Table 7.9: Nature of accommodation per category of gender shift of ownership

7.11. Discussion and conclusion

The analysis allowed to answer to the three research sub-questions outlined in the introduction:

1. *What is the proportion of female-male ownership in the urban street food sector in the three countries of investigation and how does it develop?*

Women appear more engaged in the sector at 63%, with a preponderance in South Africa at 79% and a substantial balance between men and women in Rwanda and Senegal. The number of start-ups run by women is higher than men's, indicating also that women overtake men businesses more often than the other way around;

2. *To what extent does the proportion of female-male ownership correlate with the degree of development of the enterprises?*

Our study showed that the use of traditional energy sources is equal between female and male owners, at 56%. However, there is some difference in the degree to which modern energy sources are used for cooking: 49% of male-owned enterprises and 58% of female-owned enterprises. These figures, together with the ones discussed in the energy chapter, confirm that there is no basis to link modern energy to current male ownership. The same was found for the use of modern appliances, showing instead that women use multiple modern devices more often than men,

3. *To what extent does the previous change in gender of ownership correlate with the degree of development of the enterprises?*

Data showed that there is not direct correlation between the degree of development of the enterprise and the change in gender. And whilst at the upper end the very few large enterprises in the fanciest accommodations and nicer locations are more male-owned, most of these are not related to male takeovers, but represent enterprises that were male-owned from the beginning.

The three sub-questions allowed us to have a better understanding to the main research question on whether the *modernisation of the street food sector leading to a decrease of the proportion of female ownership*. This chapter has established that food sector enterprises and increase in income and modern energy appliances won't necessarily cause a gender differentiated outcome. The data presented in this report suggest that the assumption that that would happen, does not in the case of the street food sector in Senegal, South Africa and Rwanda. This leads to the overall conclusion that there is no immediate *danger* of men driving out women from being independent owners in the street food sector of the three investigated countries in Africa.

However, regulations and even support policies could nevertheless start such biased impact when they activate restrictions and supports that affect women and men unequally. It is therefore important to have cautious and active gender-aware policies and interventions that support gender specific needs such as for business growth and energy use to ensure equal access to business opportunities. Just gender 'blindness' is not enough when culture creates differently gendered expectations and norms and indirect effects of measures, e.g. access to credit facilities, are not deliberately equalized.

8. URBAN GOVERNANCE AND ENABLING REGULATORY ENVIRONMENTS FOR THE STREET FOOD SECTOR

Worldwide, regulations and subsidies in the energy sector have been used to control the impact that fluctuating global fuel prices have on local markets, provide energy access, as well as to support the uptake of desirable energy sources, especially in an effort to alleviate energy poverty. For example, India's Direct Benefit Transfer of LPG (DBTL) targets low-income households - beneficiaries with biometric identity cards receive cash subsidies into their registered bank account for up to 12 LPG cylinders per year (Atansah, n.d.). In addition to energy subsidies and regulations at a national level, there are also local regulations and by-laws pertaining to the use of public space, and health and safety when preparing food for human consumption. Mohlakoana et al (2018, 8) illustrate how local regulations and by-laws can impact enterprises in the street food sector:

"[Regulations] and by-laws, for example, can force enterprises to prepare some of their products at a different site than where they sell them because local regulations may forbid traditional energy sources at certain locations. As an illustration, one interviewee had decided to sell cooked sheep trotters and heads to establish an income. She sells these on the side of the road at a busy intersection where there are high levels of car and foot traffic at peak hours. However, regulations prohibit open fires on the side of the road in urban areas and so she prepares food at home where she uses a wood fire to burn hair off the skins and to boil water in large pots to clean and cook the meat. Once cooked, she takes it to the roadside location where she sets up a temporary stall (small table, chair, no shelter) to sell to passers-by."

This chapter relates to our research question: **Which contextual factors (income sources, culture, political leadership, policy and regulatory frameworks, institutional mechanisms and vulnerability) influence the uptake of MESs by micro and small enterprises in the food preparation and processing value chain?**

In this chapter we focus specifically on how policies, laws and law enforcement in each country/city regulate the use of energy (up and down the value chain), use of public space, use of fire, and the creation of smoke, pollution and waste in the street food sector. And do these regulations create or remove barriers to the modern energy transition/uptake for street food enterprises? In addition, we will explore to what extent do informal street traders operate outside of these regulations and how can formalisation of this sector remove barriers to the modern energy transition / uptake?

8.1. Senegalese Regulatory Environment

The literature defines the informal sector in Senegal as highly heterogeneous (Damien and Murtin 2009). Taking into account its size and characteristics, the largest informal sub-sectors are those of trade and services. Street economy comprises most of the trade in Senegal.

It should be noted that in Senegal, the State does not make a formal distinction between the branches of activity of informal sector enterprises. The only distinction that exists is between a formal and an informal enterprise, in which activity is unaccounted for. As a consequence, any support or accompaniment to the SFS within the informal economy can only be part of a broader framework of support to the informal sector. It is also important to distinguish between the regulation of the food sector and the regulation of the informal sector. For the regulation of street food in Senegal, the two forms of regulation are complementary.

The first refers to the authorizations necessary to put a food product on the Senegalese market, to the standards of preparation, production, conservation, hygiene and quality of food. The second focuses on the regulation of the informal sector, with the aim of making migrate enterprises from the informal sector to the formal sector. This is accompanied by state support and assistance measures to companies that agree to respect a certain amount of money, number of previously agreed rules and consensus principles.

The regulation of the street food sector is a shared competence between the Ministry of Commerce and the Ministry of Industry, Mines, Small and Medium Enterprises. The health services attached to the Ministry of Health intervene in the regulation of the sector through the control of the conditions of hygiene and safety of the enterprises of the street food sector. The municipal authorities, which are in charge of the planning and management of the urban spaces, as well as the preservation of the living environment of the populations, are also important stakeholders in the regulation of the sector.

Policy reforms towards the review of the tax system have been initiated since 1997-1998, with the indirect goal of monitoring and diminishing the share of the informal economy in the overall GDP (IMF 2000).

At the legislative and regulatory level, various policies targeting informal sector enterprises have sought to formalize a sector that has always resisted any regulation. This process, which was led by the SME Directorate (DPME) attached to the Ministry of Trade and the Informal Sector, started in Senegal with the gradual implementation of a legal and regulatory framework from 2004 to 2008. The option taken by the state to formalize informal sector enterprises was to put in place a set of support and accompaniment measures for companies that agreed to formalize, through their membership in the new SME Charter (2003). From 2008 the SME Orientation and Development Act (DPME, Law 2008 -29 of 28 July 2008).

The Orientation Law provided for a certain number of facilities (tax regularization, priority access to public financing, developed sites, public markets, etc.) to companies that voluntarily decided to acquire the "status of SMEs". In return, these companies pledged themselves to comply with a certain number of consensual rules and principles (to have a Trade Register, an Identification Number of Companies and Associations (NINEA), to keep a lean accounting system minimum cash flow) recognized by Authorized Management Centers (AMC) etc. "The status of SME" is lost at any time when authorities find that they do not comply with commitments or in case of fraud proved by the Monitoring Committee placed under the supervision of the SME Directorate (DPME), moving an enterprise back into the informal sector and with a loss of any benefits that may have been received.

To facilitate the application of this law, at the institutional level, a Paper of Sectoral Policy for the development of SMEs (2010-2015) with an action plan costing 67.9 billion FCFA has been issued. At the same time, several structures in charge of supporting SMEs have emerged such as the SME Management and Development Agency (ADEPME), whose missions is to help the economic operators of the informal sector to be formal through a range of support services (implementation of business plans, assistance to the creation of an enterprise, certification of the enterprise to access bank financing, management training, partial payment of study costs, commercial prospecting, transfer of technologies, etc.).

To facilitate the voluntary tax regularization of enterprises in the informal sector and lead them to acquire the "status of SMEs", the General Tax Code adopted in 2013 established the Single Global Contribution (CGU) (DGID, General Tax Code 2013); a synthetic tax that offers the advantage of being paid only once a year and is calculated on the basis of the turnover generated by the enterprise. This one-time tax avoids unnecessary red tape and red tape that discouraged more than one enterprise from getting formalized. In addition, the membership was voluntary (voluntary declaration scheme) under the fiscal responsibility.

Finally, to take into account the specificity of women and unleash the potential of women's entrepreneurship, the Orientation Law on the Promotion and Development of SMEs, based on the Public Procurement Code, recalls

in its article 33 that: "15% of public market shares reserved for SMEs recognized as such are granted to women-owned businesses", (DPME, Law 2008 -29 of 28 July 2008).

At the time of the review, the results of these public initiatives to migrate businesses to the formal sector are rather disappointing. The informal sector has gained more weight (97% of SMEs) according to the 2017 report of the National Agency for Statistics and Demography (ANSD) on the General Census of Enterprises (RGE), which is detrimental to the competitiveness of the economic sector and calls into question the achievement of the structural transformation objectives of the Senegalese economy projected by the government in the Senegal Emergent Program (PES 2015-2035). The Orientation Law did not attract massive adhesions as desired for a number of reasons: (i) lack of political and institutional support (implementing decrees not signed, frequent changes at the head of the ministerial department in charge of the SME sector), (ii) weak mobilization of Action Plan of the SME Sector Policy Paper, (iii) lack of ownership of the Law by economic operators in the informal sector). The few companies that had joined the Single Global Contribution (CGU) defected after one to two years of practice and returned to the informal so as not to ruin themselves by paying their taxes regularly.

Today, the state seems to have changed the paradigm in terms of formalization. Indeed, the latest initiative has brought significant innovations in the process of formalization. The Informal Sector Support Program (PASI) initiated in 2016 with the support of the AfDB is an unprecedented program which, for the first time, takes a clear and structured approach to the formalization of the informal sector. This program combines the SME Directorate, which houses the program's management unit, ADEPME, which is the lead in terms of management, and the Priority Investment Guarantee Fund (FONGIP), the leader in financing. Program coordination is provided by the Ministry's Office for SMEs and the Informal Sector. It combines technical support and financial support to ensure that the informal sector is no longer perceived as an obstacle but as an opportunity to structurally transform the Senegalese economy.

Also, since 2010, the Organization for the Harmonization of Business Law in Africa (OHADA), which includes Senegal and 16 other African countries, proposes a legal status for businesses in the informal sector, which could be a model for street food enterprises. As part of the revision of the Uniform Act on General Commercial Law, the Organization (OHADA) has playing important role, devoting a special legal status to enterprises in the informal sector called: Status of the entrepreneur to a simplified legal, lean accounting and tax regime.

8.2. Rwandan Regulatory Environment

In Rwanda the informal sector also represents a source of opportunities to earn money. The informal sector bears little to no barriers to entry, making it extremely appealing, especially for the poorest. Despite the strong measures that the central government, which primarily portrays the country as a modern and technologically advanced country, has undertaken over the last 20 years to reduce the informal economy. It is not uncommon that entrepreneurs persist in remaining informal by bribing government representatives and inspectors to not declare them to the tax authority. As a result, the informal sector is thought to contribute to 47% of the total GDP, and SMEs are the main providers and producers of the country's economy (Malunda, 2012).

Pavlovic (2016) suggests that one of the reasons for the high prevalence of the informal sector is based on the existing regulatory structures and policies that are too idealistic and ambitious, and poorly implemented, making it difficult for companies to comply. The same study also defines two main reasons for the existence of informal enterprises: a clear gap in the regulatory framework that allows enterprises to operate in a poorly regulated 'grey zone'; and the weak capacity of government institutions to translate policies into concrete actions.

Our study, however, showed that according to Mr. Sibomana, sector officer in charge of taxes of the sector of Gisozi (Gasabo, Kigali), as much as 95% of the businesses that operated in its area of jurisdiction in 2015 were licensed at local level, with the remaining 5% representing the informal sector, mostly selling unprocessed food

in low quantities, repairing shoes and mobile phones, to mention a few (Sibomama, 2015). This was also confirmed by Mr. Bosco, officer in charge of restaurants and bars of the sector of Nyarugenge (Nyarugenge, Kigali), who said that as many as 97% of the food-related activities in its area were not officially registered at national level, but were licensed at local level, line with the figure provided by the census (Bosco, 2015).

This large discrepancy between lack of formalization at central and high degree of compliance at local level can be explained by the existence of a local permit, called *patente*¹²; This is an attempt of local administration to increase the level of formality of small informal urban businesses to a level of “semi-formality”. This permit allows local municipalities to fund public lighting, garbage collection and public security, and the benefits could be immediately perceived and appreciated by the licensees. The street food sector is not exception, with most of the activities currently being subjected to some degree of formalization and regulation. That is that the quasi-totality of businesses pays permits, and respects health and safety regulations, particularly in central urban areas. The city of Kigali, as well as others around the country, has also developed a manual that is handed-out to licensee, which provides safety and health guidelines for the business owners to deal with food processing and sale, as well as the use of energy in close space. Our study confirmed that in the city of Kigali, the rate of satisfaction for the payment of such permits was extremely high.

Another interesting example of local implementation plan in the sector of urban planning is the one put in place by the city of Kigali in 2016: in a wider effort to “clean up the streets” of the capital from informal sellers and women carrying *agataro*¹³ on their heads, the municipality opened the new Nyabugogo market the Nyarugenge district. Street retailers around the area were then requested to move in this confined space, at little to no-rent; those refusing it, were fined and confiscated of their products and no longer allowed to operate. This is an example of push-and-pull enforcement measure that, whilst coercive and not without complaints from those who now are forced work far from their premises, allowed street sellers, and especially women, to benefit from higher security and visibility. This activity fostered the creation of cooperatives, which could in turn get loans and exchange ideas. Following this successful experiment, other markets opened in the city of Kigali.

However, whilst these local initiatives were found to be quite successful, the same cannot be said for national ones.

Aware of the context, in 2010 the Government of Rwanda issued the SMEs Development Policy, addressing the informal sector and advocating for a simplification of the fiscal and regulatory framework that would allow a higher formalization of the economy¹⁴. However, while the policy was not specifically mentioning the street food sector, it also fell short in allocating enough resources in its effective implementation.

This tendency of the Government of Rwanda to centralize efforts and over-legislate without being able to allocate sufficient resources to the actual implementation of policies can be seen by the large number of laws, agencies, bills and other instruments put in place in the country over the past years, possibly also resulting from a short-term budgeting approach due to the high-dependency to international aid; this applies not only to the formalization of the economy, but also to environmental protection, energy and urban planning.

8.3. South African Regulatory Environment

In South Africa, according to Stats SA (2016), there are some 2,565,000 workers operating in the informal sector, representing 16.4% of total employment in the country with a contribution of 5.2% to the GDP. These figures show how South Africa has experienced a better governance and law enforcement than Senegal and Rwanda to

¹² Licence, from French

¹³ An open basket with fruit on sale

¹⁴ http://www.minicom.gov.rw/fileadmin/minicom_publications/policies/SME_Devt_policy_V180610.pdf

push the informal economy towards formalisation (Skinner, 2016). Still, there are a number of reasons why the informal food retail sector keeps playing an important role in the overall informal economy of the country, namely: the need for mobility, given that street traders tend to gravitate to areas where there is foot traffic like commuter points; the request for low prices, which can only be achieved by businesses that do not pay taxes (on average the cost in formal shops was 76% more than the same product sold by informal traders) (Skinner, 2010); and the need for small and cheap portions, allowing small informal businesses to still make profits on small quantities appropriated (Skinner and Haysom, 2016).

Introducing the idea of a 'second economy' to define the informal sector, President Mbeki addressed the topic by launching in 2008 the "Second Economy Strategy Project". As part of the initiatives, The National Development Plan (NDP) was formulated, with ambitious targets to create 11 million formal new jobs by 2030, in which more than 90% are to be achieved from small and medium businesses. Unfortunately, the NDP says little to nothing about how and whether the existing informal sector would be supported and how the existing barriers to enter the formal economy would be eliminated to provide the new jobs targeted by the project.

Following the NDP, various government proposals discussed conditions under which start-ups can flourish by simplifying the regulatory environment: creating innovative and inclusive financial instruments, establishing support services for informal businesses, among others. Another initiative of the government was the creation of the Business Licensing Bill in 2013 that requires the existence of a license for any kind of business activities, and the creation in 2014 of the National Informal Business Upliftment Strategy (NIBUS), structured in two main branches: the Shared Economic Infrastructure Facility (SEIF), responsible for provides funding for infrastructure for the informal businesses; and the Informal Business Upliftment Facility (IBUF), focusing on skills development, technology support and help with registration (Skinner and Haysom, 2016).

Despite all efforts to include the informal economy in the South African regulatory system, the existing policy papers make little or no reference to the specific case of the informal food economy. The literature suggests that one of the most successful approaches adopted worldwide focuses on building the capacities of the key stakeholders in the informal sector, capitalising on their flexibility and building consumer trust (Skinner, 2016). Better data, innovative research can also improve the process and help the policymakers (Skinner, 2016).

8.3.1 Regulating energy markets

In South Africa, almost all liquid fuels are imported and the National Energy Regulator of South Africa (NERSA) regulates the fuel price across the value chain from whole sale to retail, using formula based / automatic pricing adjustments. The purpose of these regulations is to ensure that the liquid fuels products are sold to the end-user at the cheapest possible price while balancing the need for reasonable returns on investments in the sector. The regulations also smooth out the effect of international price shocks and limit local monopolistic markets... Other than a small dedicated gas pipeline for specific large industries, there is no established gas supply network in South Africa. Currently there is no subsidy for liquid fuels. Enterprises in the street food sector can purchase LPG bottles and refuel gas cylinders at various retailers. One female enterprise owner operating in Durban at a busy transport hub explained that a 19kg gas bottle only lasts one week and it would be more convenient to use electricity because of the hassle to have the bottle refilled so often. She also said that because she operates under a tent, the wind causes the gas to be consumed more quickly than if she had better protection from the elements.

The price of electricity is also regulated by NERSA in South Africa. As discussed in the Chapter 4 on 'Home Energy', the Free Basic Electricity (FBE) policy targets indigent households and households consuming below a certain threshold. The free 50kWh/month provided aims to fulfil the basic needs of indigent households. This amount is arguably only enough to provide basic lighting and domestic energy needs. While there is no subsidy or policy subsidising the productive use of electricity, the domestic electricity subsidy does benefit some enterprises in

our sample (For a detailed explanation of the FBE policy and its impact, see Section 4.1). Similar to the FBE, the Free Basic Alternative Energy policy sets out to reach those indigent households that do not have access to electricity, but, according to the South African Constitution have a right to access to services, including energy. Where the FBE is relatively straightforward to administer and has been implemented relatively successfully in various South African cities, the FBEA has shown to be much more difficult to implement, e.g. in relation to the type of energy provided and a lack of systems in place to administer the policy.

Wood and charcoal prices are not regulated. There is both a commercial and informal supply of wood (forest wood and wood waste) to street traders in South Africa. In some markets and locations, carpenters and cabinet makers deliver wood waste and even off cuts of treated and processed wood products which are toxic to burn (Knox, 2011). During fieldwork in South Africa, piles of wood waste were found in locations near to informal enterprises preparing food in drums of water such as corn in Durban and sheep's head in Cape Town. While at other locations, enterprises use forest wood to grill meat; enterprises specifically use untreated wood for cooking meat as this affects the flavour of the food. This untreated wood or forest wood is brought on a weekly or fortnightly basis by informal suppliers which collect wood from open spaces, or by semi-formal and formal suppliers which harvest wood from farmers who clear alien invasive species (Knox, 2011).

8.3.2 Regulating energy use, public space, environment, health and safety

Various building regulations determine specific standards and safety requirements for the use of gas and electricity, however, street food enterprises operating from mobile stands or in public impermanent spaces fall beyond the reach of formal building regulations. 41% of SFS enterprises in South Africa operate from informal structures or no structures in public spaces - typically located in areas with busy foot traffic. In a study of informal food retailers in Cape Town Battersby et al (2016, 12) conclude that most enterprises can be characterised as "convenience shopping – buying food on the way to or from work" which is why it the chosen location is importantly near passing customers in a public space.

At a stakeholder event in Durban, local authorities noted that numerous departments may be involved in regulating energy use in public such as the fire department, department of solid waste, roads, and the department of environment (air quality control). In South Africa, each city and municipality implements its own by-laws to regulate informal traders' use of public space. In Johannesburg for example, traders are required to register with the Johannesburg Property Company (JPC) in order to operate legally. If their application is successful, they will be issued a smart card and lease agreement for a demarcated trading bay or structure for which they are expected to pay rent for¹⁵. In this way the city can control the use of public space, side-walks and busy transport nodes. The extent to which these by laws are enforced and whether the number of demarcated trading bays satisfy the demand is not known.

The local bylaws and policies that target informal traders tend to be generalised; focussing on appropriate use of public space and the livelihoods of enterprises in the informal economy. However, the special issues for each subsector of the informal economy are neglected, such as the contribution to food security of the informal food retail sector (Battersby 2016). As a result, the street food sector falls beyond the reach of valuable food and environment health and safety standards. One idea is to introduce voluntary standards that distinguish certified SFS enterprises as "tourist approved" for example in that the enterprise voluntarily attends a course on health and safety or that the enterprise food preparation and products are spot checked on an annual basis and meet a certain standard. Such self-regulating systems as prescribed in the literature on food safety (Alimi and Workneh 2016; Samapundo et al. 2015; von Holy and Makhoane 2006) may achieve food health and safety standards while

¹⁵ SERI Informal Traders' Resource Guide

also encouraging the uptake of cleaner methods of food preparation and processing using MES and modern energy appliances.

8.4. Regulation, formalisation and the viability of informal enterprises.

Regulation has a considerable impact on the informal sector's progress, supporting the sector to migrate towards formalisation, influencing the enterprises' activity, helping women's empowerment and facilitating access to finance and good local space (Diouf et al. 2018).

It would be naïve, however, to believe that formalisation policies will completely eradicate informal economic activity. As we have found in our study, entrepreneurs driven by necessity may begin operating informally, however they aspire to operate freely without harassment from law enforcement, register their businesses, establish formal premises, and formally employ more staff.

In our study of the street food sector, we targeted informal, semi-formal and formal enterprises. In all countries, we defined these terms as follows:

- Informal (not paying any fees nor tax)
- Semi-formal (paying for local permit and/or license fees, no tax)
- Formal (tax registered and paying to the national revenue services)

The intention was to understand the energy use patterns and strategies among men and women operating in the same sector who have different experiences in terms of law enforcement, security of tenure, and access to infrastructure. The aim was to test what impact these contextual factors relating to informal, semi-formal and formal economic status had upon energy use patterns and strategies. The chapters before have differentiated energy use patterns, empowerment, and ownership accordingly, however it became apparent in the qualitative data that the term ‘formal’ and interviewees aspirations to formalise vary from country to country and mean different things to different people. It is important that we understand what forms of formalisation enterprises in our sample experience and aspire to.

This chapter explores how the terms, ‘formal’ and ‘formalisation’ are used by respondents in the in-depth qualitative interviews and highlights respondents’ aspirations to formalise. This is particularly relevant given that development policies tend to promote formalisation of informal economic activity, yet there is little empirical evidence to say whether formalisation actually benefits women engaged in informal enterprises (Xheneti, Madden, and Karki 2017).

Method

In each country, 35 in-depth interviews with informal, semi-formal and formal enterprises. In total, 105 in-depth interviews were conducted to complement the quantitative survey data as can be seen in the table below.

Method	Informal and semi-formal interviews	Formal interviews	Total
Quantitative	638	113	751
Qualitative	75	30	105
Total respondents	714	143	856

Table 8.1: Data Collection targets

The interviews involved 12 open-ended questions with clear prompt questions and took on average 30-45min per interview. Interviewers recorded the responses in writing on behalf of the interviewees. Interviews were conducted at the place of work, and interviewers were instructed to allow the interviewees to continue with their business activities as needed. The interviews were translated into English and analysed in a qualitative data analysis programme called NVivo. Using post coding and specific text search queries, themes and findings were derived from the qualitative data to inform the quantitative analysis and provide context.

We asked interviewees the following question relating to regulations:

Please explain how your business is regulated by the local authorities such as local government, tax department, permits department?

Prompt questions: What impact do these procedures and regulations have on your business? Do they affect your use of energy? Explain what is positive and negative about the regulations?

Findings

During the fieldwork, our research was introduced as a study about energy use and gender in the informal food sector, but we made provisions for enterprises to identify as semi-formal instead of informal, which was very important because many informal enterprises in Rwanda made comments about working in fear of the police:

X (Rwandan male, 35-44, no education, married, informal enterprise) states:

“I do not pay taxes and it is a risky thing, because authorities can stop my business. The positive impact of the regulation is that I can work freely anywhere in the country. The negative is that I always work with fear.”

X (Rwandan female, 25-34, no education, married, informal enterprise) adds:

“I do not pay neither taxes nor any kind of fee because my business is not registered and I am always worried about the police assault, and being arrested.”

X (Rwandan female, 25-34, primary education, married, informal enterprise) states:

“I have long-term plans including the creation of other businesses. For now, I still work hard so that my business become formal and be able to work without worrying about the police. I want to have a registered business and work normally as any other businessperson.”

While it is not illegal to operate an informal enterprise in South Africa, it is necessary to pay for a permit to operate in certain areas. A number of interviewees mentioned that if they do not have a permit they regularly have to run from the police – if they do have a permit they are safe when the police come and they are not chased away and their stock is not confiscated.

In Senegal, fees are collected regularly by the municipality from informal traders, however this does not mean that they are registered businesses, and they are not protected from police harassment. X (Senegalese male, 25-34, no education, informal enterprise) says:

“I do not see myself leaving the business since I have mastered it well and make a profit everyday by offering good quality products. The fact that it is informal does not prevent me from doing my job well. Often, police drive us off the street due to our anarchic occupation of the road... I pay the daily fees, yet we are still driven out every day due to our occupation of public roads. I hope that the municipality that collects the taxes will give them a place to sell in order to put the customers on good terms.”

In Senegal, many enterprises confidently aspire to becoming formal restaurants and businesses – it is seen as an achievement in enterprise size and status. Being informal is associated with being small-scale and having little investment in equipment and accommodation. It is not associated with illegality or illegitimacy.

X (Senegalese female, 55-64, no education, informal enterprise) who started her business since becoming a widow to meet her family needs/earn a livelihood) states:

“Within 5 years, if I have the necessary amount or I get funding, I could expand the business. It would be an opportunity to make it formal but at the moment, I cannot change its status because I think the process is too long.”

In South Africa, a few interviewees also explained that they are still waiting for a permit or that the application process was underway. Among all three countries, law enforcement and legal compliance are prominent drivers for wanting to be formal. Beyond this, interviewees only mentioned their aspirations to operate more formal enterprises one day in the future, when they can afford to. Other than being safe from law enforcement, interviewees expressed perceived benefits of formality in being able to attract more customers with a better physical space.

X (Senegalese female, 45- 54, no education, informal enterprise) said that:

“I would like to move my business to a more formal, well-structured building where I could do other activities, such as trade of fabrics, shoes and others. Thus, I would be able to recruit a person who would ensure the catering, and as I grow older, I will limit myself to sale only.”

“We do not have a license or a trade record, which is why we consider ourselves informal, and we can move at any time. The only tax we pay is the 100 francs that we give daily to the collector of the municipality who goes around the neighbourhood.”

X (Senegalese female, 25-34, no education, informal enterprise) states:

“I do intend to scale up in this business. I can't say when, but this is my dream. I want to formalise my business by moving to an appropriate location.”

“My business does not have a license and is not known to the tax department. Yet, we hold an authorisation from the health services and pay a daily tax to the municipality.”

In the dominant policy rhetoric of the three African countries in our study, informal economic activity is associated with disadvantage, low profitability, small scale in terms of employees and turnover, requiring little start-up capital (Woodward et al, 2011), reliance on informal networks (Grant, 2013) and copycat behaviour (Chan 2008). Informal economic activity is also associated with survivalist entrepreneurial logic as detailed in Chapter 8 of this report. Formalisation is thus commonly promoted in development policies as a means to benefit informally employed workers and enterprises operating in the informal economy. WIEGO (2017) describes the benefits of incremental steps and incentives to formalise specific informal sectors, however they caution that policymakers should understand the limits to formalisation and be sure to implement context-specific incentives to formalise.

Formalisation for many of the respondents in our study means being free from police harassment. It may also mean, obtaining permits and paying fees or licenses, securing formal tenure or being able to improve the space that they operate and trade from. There were no negative sentiments about the cost of these fees, and many even expressed a willingness to do so, however some interviewees were still waiting for their application to be processed and/or approved, and others were waiting for the ability to afford the fees.

8.5. Conclusion

Our literature and data analysis has illustrated to us that regulation frameworks strongly differ per country, sector and depending on the level of formality of the business. There are also different types of regulation, which apply to product, location and energy use, to name a few. In Senegal, the street food sector is regulated by laws developed for the informal and formal sectors, depending on the type of business. Within those laws, there is some provision to promote women's participation in SME development where there is some investment by the state in their enterprises. While the informal sector has been shunned in the past in Senegal, its importance in the economy is being recognized as significant and an opportunity for the country's economic development.

This chapter has also revealed that, despite government efforts to eradicate the informal economy in Rwanda, the efforts have been met with some resistance in some sectors and loopholes in the regulatory enforcement structures have been exploited to continue operation in the informal domain. Where systematically enforced, the regulation of the street food sector in Rwanda remains most strict and structured compared to South Africa and Senegal, while offering opportunities to formalise informal businesses. This means most enterprises operating in Rwanda, are registered and therefore regulated by the state through interventions such as the SME Development Policy.

The South African street food sector is also dominated by informal enterprises and just like those in Rwanda and Senegal, offers employment opportunities and contributes up to 16.4% to the GDP. This suggests that the informal sector is a significant employer in the country. Although there are several policies that attempt to address the informal sector in various ways, such as finding solutions towards formalisation, there is no specific policy that is concerned with the street food sector and energy use or even address the gender elements in this sector.

This chapter has shown that the street food sector is an important part of the economy in Rwanda, Senegal and South Africa. However, the regulation of this sector has proven to be complex for the different regulatory bodies in these countries. This complexity is caused by several factors such as the different levels of formality, location of enterprises, energy sources used and the fluidity of the sector with regards to employment and income generation activities that are difficult to quantify. It is clear however that the street food sector is an important source of income for many individuals in these countries and in many countries in the global south and its regulation should consider its role.

Based on our data, we learned from individuals working in the street food sector that some regulatory measures are a concern for those operating in the sector. To illustrate, some entrepreneurs are unable to afford registration and permit costs. This makes them vulnerable to law enforcers, who prevent them from operating their enterprise or confiscate their equipment. Providing opportunities for enterprises to formalise through funding and training schemes, and voluntary health and safety standards may have positive results both for the state and individuals working in the street food sector, without penalizing those that operate in the informal realm.

9. POLICY IMPLICATIONS – MESSAGES FOR POLICY AND PRACTICE

The chapters above have presented a wealth of information which includes but not limited to the levels of formality in the street food sector and the implications of this on energy use and gender in Rwanda, Senegal and South Africa. Data from the surveys were elaborated on and used as basis of discussion during three workshops with key stakeholders identified throughout our project activities in Kigali in Rwanda, Dakar in Senegal, and Durban in South Africa. Other information was extrapolated from the country reports developed by each partner and the literature concerning energy and the street food sector, then summarised in the second part of this chapter. The last section deals with conclusions and recommendations. It is important to note that some policy messages will be more relevant for local policymaking while others are more relevant for the national level or foreign aid agencies as well as business development stakeholders.

Our three country study into the SFS taking a gender approach shows that this already large sector is growing and any attempts to push it toward formality have, in most cases, failed (see Chapter 8). The street food sector is diverse and as shown in the previous chapters, our sample can be categorised into three types of enterprises i.e. informal, semi-formal and formal. Although the SFS does provide possible opportunities for enterprise owners to transition from informal to formal businesses in this sector, it is an illusion to think that criminalizing the sector may work in forcing traders into formality. Our data shows that there are several factors that contribute to the level of formality of the enterprise and in some cases there are differences between men and women. Examples can be drawn from Chapter 7: Gender and ownership, where it is illustrated that as much as this sector is dominated by women, their share of ownership decreases as the businesses become more formal (see Figure 7.1). This however does not mean that women in these enterprises have no aspirations to grow their enterprises (Knox et al, forthcoming; see Annex 4).

In fact, the growth aspirations of informal and micro enterprises in the street food sector can be supported by a range of interventions, and energy-related policies could and should be part of these efforts. These interventions include supportive regulatory frameworks, investment support in appropriate clean energy technologies and fuels, provision of targeted subsidies and incentives, and integrated development approaches for informal food trading hubs and the sharing of lessons and best practice.

Based on a study of unsuccessful and successful programmes in several developing countries in Asia, Sovacool (2013) discern the following ten factors that correlate with successful national development programmes to promote the uptake of clean and renewable energy technologies:

1. Selecting appropriate technology through feasibility studies and surveys that, by asking local users what they want, are able to identify community needs and desirable energy services;
2. Coupling renewable energy with income generating activities and partnering with livelihood groups such as farmers and crop processors, small businesses, restaurants, and community cooperatives;
3. Providing access to financing and microcredit to overcome the first cost hurdle with purchasing systems;
4. Having political leadership and a requisite alignment of national and local policies;
5. Building capacity and investing in local institutions rather than merely providing technology;
6. Being flexible in terms of deadlines and changing circumstances, including the avoidance of promoting technology selected only by donors;
7. Conducting outreach and marketing campaigns and research to ensure that economic, social, and policy issues are addressed alongside traditional engineering and environmental aspects;
8. Encouraging active participation (and feedback) from communities, essentially creating as much interaction among designers, producers, and users as possible;
9. Avoiding giving away systems for free and instead requiring community contributions and cost-sharing;

10. Enforcing technical standards and certifications so units, components, installation practices, and maintenance procedures are all sufficient to ensure reliable system operation.”

These ten factors for renewable energy programmes can also be applied to broader economic empowerment programmes in street food sector. Our data shows that the main barrier met by our respondents when they were becoming entrepreneurs, was lack of access to capital (Knox et al, forthcoming; see Annex 4) and experience other barriers such as unavailability of suitable locations, local regulations, hard competition. Therefore, with regards to lack of capital or business development finances, a policy intervention could focus on financing mechanisms directed at women and men in this sector could remove this barrier, which would enable women to establish, grow and sustain their businesses.

Our data also shows that men and women recognise the value of modern energy services and their main reason for wanting new appliances is to attract more business (see chapter 3). Therefore efforts to develop the economic viability of the sector will go hand in hand with use of more modern energy services and new appliances.

A series of policy considerations is provided.

9.1. Re-evaluation of the current regulatory paradigm

Literature review studies by de Groot et al. (2016) and Matinga et al. (2018), both produced as part of this research study, show how remaining in the informal sector is often a deliberate choice, allowing owners and employees to benefit from lower operational costs, no or minimum permit and tax payments, less bureaucracy, higher flexibility and to some extent, a higher prospective of growth in the short term. This is also a consequence of a general lack of education among operators in the sector, and the existing legal frameworks that are not sufficiently supportive to the SMEs, but rather focussed on regulation only. On the other hand, our own respondents answer in vast majority that “ultimately they do want to have a formal business” whereby they can benefit from stable business operations and no ‘harassment’ by authorities.

It is therefore necessary to critically evaluate the current regulatory approaches implemented at local government level. Policymakers need to work with the sector rather than work against it and removing it from the urban landscape. The experiences of street food traders and organisations working closely with them affirm that the prevailing paradigm is not development-centric, but is regulation centric. Street food trading hubs are primarily viewed as spaces that need to be regulated in order to ensure that trading takes place in officially allocated locations where use of certain types of energy sources can also be regulated, with the enforcement of regulation and municipal bylaws taking precedence over developmental initiatives. In some cases, such approaches lack meaningful engagement. They do not produce suitable infrastructure and municipal services while stifling entrepreneurship initiatives of the less formal businesses in the street food sector. They seem to prioritise formal commercial scale development. This can have important gender implications in whereby it would imply that a female dominated sector would be replaced by a male dominated commercial business sector. While we did not see evidence of a male take-over in the street food sector, we did observe indications that at the “upper” end, with real restaurants in shopping centres for instance the majority of owners tend to be male. As the street food sector provide livelihood for many women and their families to which other sector are harder to enter, this would be a negative development.

Another interesting approach is the semi-formalisation implemented in Rwanda, through the permit system, issued at local level, whose benefits in terms of street cleaning, public lighting and safety is immediately evident to the permit payers, who are happy to do so. It is also important to note that this policy might be promising but not easily implemented as we did come across many unregistered street food enterprises in Rwanda. Also, surveys showed that this semi-formalisation usually comes with a series of guidelines on how to improve the health and safety of the work environment, to which the owners need to comply to avoid fines.

9.2. A need for integrated and innovative urban design, infrastructure and spatial planning for street food trading hubs

The street food sector is not only an important livelihood sector for especially women, it is also growing in interaction with the growth of the formal sector of the economy (think of office workers needing an affordable lunch) and has the ambition to develop themselves (see Annex 4). However, the trading spaces occupied by street food traders in city centres, at public transport interchanges and within townships, often lack adequate infrastructure. This pertains to the physical trading spaces and essential municipal services. Investment¹⁶ in appropriate energy infrastructure is needed to serve energy needs for the variety of meals prepared daily by street food traders. For meals prepared with fire, alternative clean cookstove technologies, particularly for industrial applications, need to be tested with traders themselves. Other urban infrastructure needs pertain to servicing stands (kiosks) with water and electricity as well as managing the food waste generated daily on site.

A balance needs to be struck between respecting some of the established practices of street food traders, while incorporating new innovative solutions and best practice from inter-city experience learnings. This requires a consultative approach in order to better understand the challenges and needs of street food traders, and collaboration between various local government departments, with regard to urban infrastructure planning, energy, and waste management, with national government support. You probably do not have evidence to suggest that they are not doing this.

9.3. Promoting appropriate clean energy technologies and fuels through pilot projects and investment

It is probably a mistake to expect all street food enterprises will switch completely to cleaner more modern energy services as some forms of traditional fuels will remain, due to socio-cultural practices and customer preferences (such as barbeque meat). Our three-country study into the SFS found that not all enterprises want to climb the modern energy ladder per se, and actually depend highly on some energy sources such as charcoal and wood because of the type of product that they prepare with these energy sources. A focus of policymakers should, in this case, be on clean energy technologies, and more sustainable wood and charcoal supplies.

There is therefore a need to demonstrate various energy technology options that could work for street food trading (e.g. cleaner cookstoves for industrial applications) and to assess if alternative clean energy technologies, practically and financially, serve the needs of street food traders. Pilot projects in partnership with SFS enterprises, local government actors, research institutions and clean energy technology companies could be useful in this regard. The pilots could play a particularly important role in testing cleaner energy technologies and fuels in practice with respect to their actual performance, impact on flavour, cooking time and the perceptions and impressions of street food traders and their customers. This could raise awareness among food traders about alternative clean cooking technologies. In eThekweni there have been examples of industrial improved cookstove pilots with mielie (maize) cooks, with favourable results for the time taken to cook mielies. In Rwanda and Senegal there is high use of charcoal on improved cookstoves that emit less smoke to be used indoors.

As highlighted in the Senegal workshop, lack of access to information about clean energy alternatives can serve as a barrier to the transition to clean energy sources in the street food sector. Concerns about sustainable development, energy saving and energy efficiency are still far from being integrated into productive energy choices in the street food sector, or integrated with gender and entrepreneurship policies. In some instances, cleaner cooking technologies may be within reach, but are not used due to a lack of information.

¹⁶ Investment from business development interventions or revenues collected from enterprises.

In addition to information, to stimulate the use of clean cooking technologies and appliances different financing mechanisms, such as investments in energy infrastructure which can be done by the enterprises, government or non-government agencies and credit facilities, need to be made more accessible to street food traders. This will broaden the range of cooking technologies and fuels available, to be selected by the traders themselves, as some technologies may be better suited for certain cooking needs than others.

9.4. Creation of platforms for information dissemination and sharing of best practice

Participants at the workshops held in South Africa and Senegal expressed a strong need for a platform mechanism to share best practice. When developing new approaches and strategies to facilitate the development of the street food sector, it could be useful to draw on lessons and approaches that have worked well elsewhere such as in some Asian and Latin-American countries. This could be a multi-city platform, within a country and across cities in Sub-Saharan Africa.

A specific recommendation from the workshops was the development of an integrated multi-stakeholder regulatory framework, involving all stakeholders including local authorities. Specifically, the Electricity Sector Regulatory Commission (ESRC) needs to integrate data on women's access to energy into their energy information system (EIS), taking care to distinguish domestic uses from enterprise uses – this would provide indicators for monitoring and evaluation of the institutionalisation of gender in energy public policies.

9.5. Quantification of energy costs, sources and uses

At the South African stakeholder workshop, the representatives of the Department of Energy suggested that quantification of the types of energy sources, their main uses and associated costs would be useful data for this department to develop strategic interventions for energy in the street food sector. The Senegal workshop specifically highlighted the need to quantify the energy costs (combining both fuel and appliances) as a percentage of the total costs of the street food enterprises. The main reasons for a call to quantify this data is that, in order to make useful interventions to the SFS, the government needed to know the amount of energy used by this sector as well as the appliances most used. This would assist in implementing interventions such as energy or appliance subsidies. Due to the complexity of quantifying energy costs, mainly due to the quantities that energy sources are 'measured' in, especially traditional energy sources, we took a decision to exclude our previously collected data. The inconsistent measurements in quantities across data from the three countries needs to be noted as a need for further studies in energy costs quantification, especially in the informal Street Food Sector.

9.6. Appropriate energy subsidies and incentives

Household energy subsidies in South Africa have enabled some individuals to benefit from subsidized electricity use for their food businesses which benefit directly from home energy. In Chapter 4 we show that the majority of beneficiaries (78%) of these household energy subsidies are women who in turn use this subsidized energy also for their business needs. Our data also shows that, of those agreeing that their enterprises rely on electricity subsidies for survival, 83% are women. On the other hand, 37% of those receiving subsidies, started their enterprises because of these household energy subsidies. The South African case illustrates that there is an important role that could be played by modern energy subsidies in business development of the street food sector. A policy recommendation based on the South African evidence would be to advocate for energy subsidies to support enterprises in this sector as this could reduce the capital needed to start such businesses and would benefit women the most in countries where women dominate the SFS. Electricity also provides a viable alternative to other traditional sources of energy, especially in terms of health and safety, which is point of interest for policymakers. Where there is lack of political buy-in for such subsidies, it is important for policy

makers to know that subsidies that are structured to help the poor without subsidizing the rich can have this support for microbusinesses as the street food sector as an relevant side-effect.

9.7. Leverage on health and safety good practices

Research into health and safety of enterprises was not conducted by our study in terms of the surveys and interviews carried out, however, these were mentioned by attendants to the workshops in South Africa and Senegal. It was suggested that the issues of health and safety could be leveraged to increase the attention of policymakers on the street food sector. In Rwanda, health and safety guidelines are provided by the local municipalities of Kigali to all semi-formal businesses, to which they are obliged to comply. With due consideration to important public health and environmental regulations impacting the preparation of meals and the use of particular energy sources, enabling mechanisms are needed to create functional and conducive spaces for entrepreneurs in the sector.

While in our study, the traders showed a widespread ambition to develop, but also mentioned an already fierce competition as a barrier, making the street food sector more attractive for tourists is an interesting growth option. Again, this is very dependent on health and safety issues.

Modern energy services as electricity can also affect another problem in the sector, that of personal safety while working in the evening. This is seen as a serious problem by half of the traders, both women and men. Having electric lighting is highly valued by those who already have it and is also seen as (very) important by two-thirds of the ones that do not yet have it. Apart from improved security also various benefits for the business themselves are the reason for this.

9.8. Set-up appropriate financing mechanisms

Street food sector enterprises that are considered informal are relegated to peer and private financing, given the impossibility of accessing official financing channels. The low profitability of enterprises in the informal sector, their difficulty in offering adequate guarantees and to some extent, the inability to present reliable economic and financial information on their activities are, among other difficulties, reasons for the rejections of their request for funding. In our study, 275 (45%) responses out of 615 indicated that 'no access to capital' was the main barrier they experienced when starting their businesses.

Nonetheless, micro-financing and various initiatives, especially aiming to support vulnerable women, are now attempting to fill the gap, but they also lack understanding of the SFS.

In Senegal, the civil society, through several philanthropic associations, seems to fill the gap where governments cannot. Several initiatives of micro-credit and support to women in the sector seem to be active in the country (see Senegal case study in Annex 2), but what's clear is that most initiatives operate in an environment with limited information about sector dynamics.

Access to more data about the street food sector operations would allow these funding and credit organisations to be more effective.

9.9. Promote bottom-up initiatives

More bottom-up initiatives should be promoted, either from local governments or civil society: entrepreneurs have shown to be willing to pay for services, as long as they see the immediate benefits. These could again be linked to health and safety, or other supportive mechanisms for growth, access to finance or new energy sources and appliances. Initiatives should be supportive of formalisation, rather than just discouraging of informal economy. Rwanda is moving in this direction. Self-

organisation could not only be helpful to overcome some barriers, but also to make the local governments more aware and draw their attention to the needs of the sector and the opportunities they can bring to the city's general development.

9.10. Train and educate

There is a low level of professionalization of food sector players and activities due to a lack of formal practical and professional training such as business courses for owners and their employees. Currently, the lack of financial empowerment of women, low levels of education, and lack of access to information on modern energy sources, costs, and funding opportunities and lack of awareness of innovative technical and technological solutions of clean energy, are inhibiting women and men in the SFS from accessing modern energy sources. Women are more disadvantaged since they dominate have lesser access to capital, have lower education levels and as shown by our data, have less ownership of formal enterprises.

Bringing together these aspects, can result in a better understanding of the dynamics of the SFS. Sharing this information with policymakers and civil society active in the sector will be vital to help shape vocational training programmes to educate entrepreneurs and help them formalising their businesses and access to credit.

9.11. Policy implications and recommendations

This section lists several observations from our study that have policy implications and the resulting policy recommendations that we envisage. We do this from three perspectives. First is the perspective of energy itself. Obviously, this perspective relates energy to both gender and the enterprises in the Street Food Sector (SFS). This is followed by the perspective of gender and empowerment, related to the enterprise. As the SFS operates in a very local context and is highly dependent on local urban policies we conclude with the urban governance perspective. To keep the text short, it has the form of statements in a bulleted layout.

a) Energy perspective

Policy relevant observations

- Present energy policy does not consider productive uses of energy in the SFS. At lower levels, it is concerned with household energy use rather than micro-enterprises and fails to link household energy use to informal micro-enterprise energy use. It is not focusing on cooking energy for productive uses.
- Energy access and use is a necessary condition to ownership and working in the SFS and facilitates other benefits for those active in this sector.
- Access and control over MES represent a strong opportunity for the SFS, allowing transfer of best practices at household level.
- Household energy supply has an indirect high impact and benefits micro informal enterprises.
- Policies targeted at eradicating household energy poverty can benefit micro enterprises in the SFS.
- Several factors influence the selection of energy carriers. Different energy sources fulfil different needs. Energy sources stacking (using various sources simultaneously for different uses in the enterprise) is common.
- Energy use in the sector is not gendered in the sense that gender differences are largely dependent on the type of product prepared and sold.
- Energy supply of traditional energy sources is gendered but informally organised (scoping phase report). It is mostly men that supply traditional energy sources but it is hard to determine if the

suppliers of modern energy sources are male or female as these energy sources are mostly acquired from a variety of retailers and utility companies.

- Wood and charcoal suppliers are informal and tend to be invisible, even when they are organisations rather than individuals.
- The energy sector shows no discrimination of gender in energy use, but ideologies about formalised growth oriented enterprises favour men who tend to dominate these types of enterprises and sectors. Since these ideologies don't value the potential of the SFS, few energy interventions are considered.

Recommendations

- There is a need to develop strategies targeting clean energy access and use not only in the households, but also in the SFS among the micro enterprises, including informal enterprises.
- These should provide energy services that will accommodate the needs of men and women in the sector, rather than just increase electricity supply. Needed is a gradual, inclusive, energy transition towards cleaner energy services that is planned to accommodate SFS energy needs.
- If supply chains are to be formalised, gender should be considered to ensure representation of men and women as suppliers.
- It would be good when Energy Intensive Users Groups (mostly large industry) develop Energy Intensive sub-sector groups wherein the SFS can be accommodated and giving the SFS a voice towards energy suppliers.
- Rwanda strives to get only registered SFS enterprises. Any formalisation plan towards the SFS needs also to accommodate traditional energy sources and an energy transition that does not increase barriers. Like elsewhere cooking energy is not only relevant in households, but also needs considered for productive uses.
- South Africa has a system of Free Basic Energy (FBE). The positive effects of it can be increased when it starts to consider its impact on productive uses.
- Senegal has a process of territorialization of public policies to give more power to the municipalities. Also, in the context of the creation of sustainable cities, to which they are invited as part of the national strategy to fight against global warming, they have a responsibility in the energy transition in all the sectors of activity carried out on their territory is engaged.

(b) Gender and empowerment perspective related to the enterprise

Policy relevant observations

- In the street food sector in the three countries, women participate more actively than men. Compared with the situation in most other sectors that is very special. Many of these women are the main breadwinner of their households.
- The sector provides special income generation opportunities for women as they have fewer opportunities in other sectors than men.
- Moreover, the enterprises show to have a vast positive effect on empowerment issues, again equally for women and men, but because of this sector is female dominated, there are relatively more women that benefit from this than is the case in other sectors.

- The sector is necessity-driven, but growth-oriented, providing opportunities for employment and empowerment.
- Micro enterprises in the SFS do have ambition to grow and have concrete ideas about how they want to proceed, when barriers are lifted.
- The main barrier proves to be (access to) finance. Somewhat lesser barriers are: availability of locations, local regulations, and hard competition. Disapproval by the social environment and lack of time because of family responsibilities (the “usual suspects” as barriers for female entrepreneurship) are mentioned by less than 5%.

Recommendations

- Giving better access to (micro-)credit for enterprises in the SFS. Thereby it is important to watch out that there are no rules – like about having bank accounts on females’ individual name - or cultural norms, that give women in practice less access to in principle genderblind credit facilities. In SA subsidized energy also acts as an enabler.
- General economic and business development interventions need to be inclusive, not excluding micro-enterprises like in the SFS, nor excluding still informal enterprises. All interventions need to consider whether genderblind is good enough or whether the interaction with existing rules and norms makes it more difficult for women than for men to benefit.
- Self-organisation of the women (and possibly men) in the sector can help to address the mentioned smaller barriers, and enable consultation with and lobbying at urban government agencies on local policies and regulations. Also, lobbying for access to financial support or even creating a revolving fund for the members among each other could also be options. As an important side effect the feeling of empowerment of the people in the sector could grow this way.

(c) Urban governance perspective

Policy relevant observations

- Local policies are often regarding the street food sector as a nuisance and pre-modern rather than as an asset for the local economy and a source of livelihood and empowerment for the poor, among which many women. Actually, the growth of the SFS is intertwined with the growth of employment in the formal sector of the economy – think of office workers needing a quick lunch or evening meal before returning home.
- The SFS works in a context where many different local policies and regulations apply, concerning their location, transport, energy access, health issues, etcetera. It is at the urban governance level that all these aspects of the context SFS enterprises are working in come together.
- While at the moment there are no signs of a male take-over in the SFS, at the upper end of the spectrum of the enterprises (restaurants with several workers in shopping malls for instance) we do observe a male majority of ownership. When the SFS develops into ever more “fancy” stands and places, as both owners and urban governments would like to see, it needs caution and monitoring what this means for female ownership.

Recommendations

- Urban policy makers need to work with the sector rather than work against it and removing it from the urban landscape, “cleaning the streets”.
- Local policies could guide the locations (and their facilities a/o. energy facilities) and regulate competition to some extent. They should re-assess the variety of applicable regulations into a coherent package. Again: they should be aware of implicit gender effects that can occur when gender-blind policies are interacting with pre-existing rules and norms.
- Such integrative local policy requires the mutual cooperation of various agencies.
- Urban governance practitioners need to accommodate appropriate energy needs and a variety of energy sources for the SFS to achieve positive gender impacts.
- The transition to cleaner energy services will require interventions and considerations beyond the energy sector. It requires for instance the involvement and cooperation of urban planners, health and safety, environment agency, transport agency, economic development and tourism.
- While tourism could provide room for further development and growth of the sector, the sector as a whole could benefit and expand when standards of hygiene can be raised to appeal more tourists. This could take not only the form of local regulations and enforcement, but also be done by self-organisation of certification and inspections.
- In the gradual transformation from the street food sector enterprises to ever more fancy restaurants there is a risk of losing the position of females to a more dominant position of men, even while the position of women in the street food sector until now seems to be quite robust. Here a gender steered policy of deliberately helping women (cooperatives) to open a “real restaurant” could be justified to prevent male investors gradually driving out the street food sector with male owned restaurants. Justifications could be: stimulation of women entrepreneurship in a sector that provides them relative good chances and also guarding the position of “authentic” food against the take-over by (American) food chains that would reduce the position of the women to that of employees.

10. CONCLUSION

This report has explored the data collected to analyse the productive uses of energy in the street food sector and the gender implications thereof. The report had set out to answer questions that we formulated at the beginning of this research study whereby we used the scoping phase to find out the important factors influencing energy use in the street food sector and the impacts of modern energy for women and men working in this sector.

Our study's main assumption was that 'improved access and use of modern energy services in female and male-owned enterprises' would improve the lives of people working in the street food sector. Modern energy services were assumed to facilitate cleaner and more efficient production in these enterprises, enable production of better products, facilitate less drudgery and increase the sense of modernity among the users.

In responding to our research questions within the Theory of Change framework, in Phase 1 (Scoping Phase) our survey contained questions that explored whether modern energy services improved production and led to less wastage; whether there was improved quality of products due to modern appliances and whether there was less drudgery production.

In the Scoping phase data and the literature reviews conducted for this study, we found that rather than relying only on modern energy services for production purposes in their enterprises, the business owners used a variety of energy sources to fulfil their energy needs (Mohlakoana et al. 2018; Matinga et al. 2018 and de Groot et al. 2016). In the phase 2 dataset, we found that respondents' preferences for modern energy services related to lighting for extending business hours, music for attracting customers, and other appliances for reheating products, not necessarily to replace traditional or existing energy sources.

In Phase 2 of the project, we aimed to prove the more assumptions about use and access of modern energy services. One of the assumptions we had stated on our framework is that access to and use of modern energy services leads to better health for those working in the street food sector. Better health would lead to a healthier workforce which would lead to **economic empowerment**. Due to our data collection plan and based on the results from our scoping phase, the questions that were asked during Phase 2 of the project did not explore health issue related to energy use in the street food sector. Although we are aware of the importance of health concerns in this sector, we did not have the baseline data to follow-up on this issue. This does not take away from the fact that, based on our sample and findings, economic empowerment is not the result of access and use of modern energy services access alone, but factors such as the ownership of the enterprise also contribute to different levels of empowerment. Chapter 4 – 'Empowerment, entrepreneurship and gender' of our report takes into account the various factors that influence empowerment such as enterprise owner's or employees personal characteristics, their household characteristics, their enterprise characteristics and social characteristics.

On assumptions that would lead to **social empowerment** through the change that would be brought by access to and use of modern energy services, our study found that, those working in the street food sector were not empowered by using a certain type of energy but empowerment was realized through ownership or working in the enterprise. Our chapter on Empowerment categorizes the types of empowerment experienced by the different surveyed individuals.

- What are the impacts of access to modern energy services on enterprise development?
 - In Chapter 3, we present analysis of how energy is used in the Street Food Sector enterprises. The role of modern energy services such as electricity and gas is regarded as important by those that rely on these energy sources. Electricity and gas are used for different end uses such as cooking, lighting, powering television and radio, charging mobile telephones and refrigeration of food. In Chapter 6 we

present results about access to and the importance of energy subsidies for low-income indigent households. These energy subsidies have enabled householders to access and use electricity which they say contributes to their food enterprises.

- What motivates the adoption of modern energy sources in the energy mix of Street Food Sector entrepreneurs, and what are the underlying gender dynamics?
 - Energy subsidies have motivated householders to start food enterprises as they are able to use energy services such as refrigeration for storage of food and to prepare products to sell from home. Various other factors such as government regulations, location of enterprise and the type of food prepared motivate the adoption of modern energy sources as part of the energy mix used by food enterprises. Gender differences are mainly explained by the limited differences in types of food prepared (see below).
- Which contextual factors influence the uptake of MESs in the food preparation and processing value chain?
 - Location of enterprise, the type of food prepared, the level of formality of the enterprise, and customer taste preferences are some of the contextual factors that influence the uptake of traditional and modern energy sources. Thus, there is not a singular causal factor, but the constellation of factors together that explain the use of MESs in a particular setting.
- What is the relationship between the use of modern energy services, empowerment, and survival and growth-oriented enterprises?
 - Our data shows that the use of modern energy sources – gas and electricity – increases with the formalisation of the business, for both men and women. It also showed that all the microbusiness in the sector, even those that would appear solely survival oriented in fact are also growth oriented and are not hold back by their own fundamentally different entrepreneurial spirit but by their circumstances. In that sense, the role of modern energy services is not restricted to obvious growth-oriented enterprises, but can serve as an enabler to all.

With regards to energy use, our data shows that the different types of enterprises, namely, informal, semi-formal and formal use different energy sources based on their needs. Probably this is not a direct causal relationship, but explained by the on average different location, stage of development, etcetera of formal enterprises compared to informal ones. Energy use is also influenced by its availability depending on its supply in each country as we noted that charcoal use was more in Rwanda and Senegal than in South Africa, where electricity is more often available and used.

We also saw that with regards to the main energy sources reported in our sample i.e. wood, charcoal, gas and electricity, there was not much difference in use between male and female respondents and enterprise owners. On the other hand, when analysing country specific data, we saw that there were some differences in energy use between men and women. Our data also shows that energy used depends on food prepared by the enterprise but most enterprises used multiple sources of energy. Two most dominating energy sources across the board were gas and charcoal. Just like energy use, respondents also have specific reasons for appliance choice and use. The use of MESs in households did appear to play a significant role in starting street food business and therefore promote gendered empowerment.

With regards to importance of modern energy sources, the respondents indicated that electricity was important to them for extended working hours that it provides, ease of working and improved security. With regards to energy costs, the data we collected from the scoping phase study indicates that there is an even split between

male and female respondents with regards to their expenditure on energy. South African enterprises were seen to be spending more on energy per week than their counterparts in Rwanda and Senegal.

The Street Food Sector is dominated by women in the three African countries where our study took place. Our data also confirms this fact as 64% of our respondents were female. Those generating an income in this sector identify themselves as main breadwinners and decision makers in their households. Since owning or working in a street food enterprise provides some level of flexibility due to the nature of informal conditions that many of these enterprises operate under, women are able to fulfil their productive and reproductive tasks at the same time. The special gendered role of the street food sector is not only apparent from the female majority among workers and owners as such, but is also amplified by the fact that for many women it is the only realistic option they have to be economically active, as many sectors like construction or car mending are far less open to them.

Based on our study proposal, we wanted to find out if modern energy use in the street food sector contributes to empowerment of the owners and employees of the enterprises. Our data showed that with regards to this sector, energy sources used were not regarded as the main contributing factors to empowerment. We found that, for all employees and enterprise owners – and especially women who dominate the street food sector in Africa – operating a street food enterprise increases the individual's decision-making power, self-confidence, control over finances, appreciation and support from extended family, children and partners. It is therefore imperative that local development policies do not ignore the sector's potential for empowering women. This does not imply that modern energy services are unimportant for the empowerment of the women in the sector, but just that their provision should be part of an integrated package in which also other needs are taken care of, to support the development of the enterprises.

Regulation of the street food sector is done differently in each country based on the policies in place. In our study, we found that this sector is regulated by different rules and laws and by different stakeholders such as local government, health officials, spatial planners and business development institutions. We have also found that the most commonly found form of regulation is that of paying monthly fees such as space rental and permits to prepare and sell food. But most enterprises aspired to be ultimately more formal and therefore regulated, even when this brings costs in the short run.

The contribution of energy subsidies to enterprise development in the street food sector is a point that needs to be considered by policy makers. Our samples showed that those receiving free basic energy subsidies for home energy use, also used this energy for their businesses and acknowledged that this benefitted their enterprises. Among the respondents that stated to rely on these subsidies to support their enterprises' energy needs there were many women. Of those interviewees that got energy subsidies 80% were women and also among those that said yes – energy subsidies encouraged them to start food businesses also 74% are women and 26% men (note that this is the SA sample only).

Enterprise ownership in the street food sector is important in order to determine who is most active in such establishments. Our study found that women dominate this sector and there is no male takeover of female-owned enterprises. The formal food enterprises are more likely to be owned by males (45% male share) than the informal and semi-formal enterprises that are even more often owned by females (35% male share). This does not mean that women do not want to take part in formal enterprise ownership, but that their chances of getting support to participate at the formal level are somewhat lower than those of their male counterparts due to barriers such as lack of access to capital. Our data has shown that women have as much growth aspirations for their businesses then men and these vary based on the needs of the business.

Our study also shows that those in the street food sector also have aspirations to formalise their businesses, a step that would benefit their enterprises in a number of ways including being so that they are protected from laws imposed by local authorities, which make it difficult to operate an enterprise freely.

Based on our data analysis and as part of the main outputs of this project, we have come up with policy considerations to be presented for policy influencing purposes outlines in Chapter 9 and Annex 5. We outline the need to re-evaluate the current regulatory paradigm, to have an integrated approach to urban design and spatial planning in these African cities where so many people depend on the street food sector for income generating activities and for their daily meals.

ANNEX 1 : REFERENCES

- Alimi, B.A. 2016. Risk Factors in Street Food Practices in Developing Countries: A Review. *Food Science and Human Wellness*, 5 (3): 141–48. <https://doi.org/10.1016/j.fshw.2016.05.001>.
- Alimi, A.B., Tilahu, S.W. 2016. Consumer Awareness and Willingness to Pay for Safety of Street Foods in Developing Countries: A Review. *International Journal of Consumer Studies*, 40 (2): 242–48. <https://doi.org/10.1111/ijcs.12248>.
- Arouri, M. et al. (2014). Informal Economy in Africa: Building Human Capital to set the Gazelles free. Available from: http://www.econ.boun.edu.tr/content/wp/EC2014_04.pdf. Accessed 25 July 2018.
- Atansah, P., Khandan, M., Moss, T., Mukherjee, A., Richmond, J. 2017. *When Do Subsidy Reforms Stick? Lessons from Iran, Nigeria, and India*. CGD Policy Paper. Washington, DC: Center for Global Development. Available online at: <https://www.cgdev.org/publication/when-do-subsidy-reforms-stick-lessons-iran-nigeria-and-india>, accessed 4 November 2018.
- Battersby, J., Marshak, M., Mngqibisa, N. 2016. Mapping the Invisible: The Informal Food Economy of Cape Town, South Africa. Working paper Nr 24. *Urban Food Security Series*. African Food Security Urban Network (AFSUN) African Centre for Cities, University of Cape Town, South Africa.
- Benjamin, N., Mbaye, A.A. 2012. *The Informal Sector in Francophone Africa : Firm Size, Productivity, and Institutions*. Africa Development Forum. Washington, DC: World Bank and Agence Française de Développement.
- Berner, E., Gomez, G., Knorrinda, P. 2012. ‘Helping a Large Number of People Become a Little Less Poor’: The Logic of Survival Entrepreneurs. *European Journal of Development Research*, 24 (3): 382.
- Bhattacharyya, S.C. 2012. Energy Access Programmes and Sustainable Development: A Critical Review and Analysis. *Energy for Sustainable Development*, 16 (3): 260–71. <https://doi.org/10.1016/j.esd.2012.05.002>.
- Cheung, O. L. 2014. Are We Seeing ‘Necessity’ or ‘Opportunity’ Entrepreneurs at Large? *Research in Business and Economics Journal*, 9: 1–26.
- Choto, P., Robertson K.T., Iwu, C.G. 2014. Daring to Survive or to Grow? The Growth Aspirations and Challenges of Survivalist Entrepreneurs in South Africa. *Environmental Economics*, 5 (4), 93-101.
- Damien, E., Murtin, F. 2009. What Determines Productivity in Senegal? Sectoral Disparities and the Dual Labour Market, *The Journal of Development Studies*, 45 (10), 1707-1730.
- Dejene, Y. 2007. Promoting Women’s Economic Empowerment in Africa. Africa Economic Conference, Addis Ababa, 15–17. African Development Bank (AFDB), Liberia. Available online at: http://repository.uneca.org/unecawebsite/sites/default/files/page_attachments/yeshiareg_dejene.pdf, accessed online 15 October 2018.
- Diouf et al. 2018. Gender and Energy in the Street Food Sector in Senegal: What Policy to Consider? *Enda énergie*. July, 2018.
- Elyachar, J. 2010. Phatic Labor, Infrastructure, and the Question of Empowerment in Cairo. *American Ethnologist*, 37 (3): 452–64. <https://doi.org/10.1111/j.1548-1425.2010.01265.x>.
- Feiger, L. 2018. Rwanda Brought to Life the Childhood Fantasy of Milk Bars. Available online at: <https://theculturetrip.com/africa/rwanda/articles/rwanda-brought-to-life-the-childhood-fantasy-of-milk-bars/>, Accessed 17 September 2018.
- Gale, J. 2017. 20 Iconic Street Foods Around the World under £5; Available online at: <https://www.hostelworld.com/blog/street-foods-from-around-the-world/>, Accessed 17 September 2018.
- Grant, R. 2013. Gendered Spaces of Informal Entrepreneurship in Soweto, South Africa. *Urban Geography*, 34 (1):86-108. doi: 10.1080/02723638.2013.778640.
- Groot, J. de, Mohlakoana, N., Knox, A., Bressers, H. 2017. Fuelling Women’s Empowerment? An Exploration of the Linkages between Gender, Entrepreneurship and Access to Energy in the Informal Food Sector. *Energy Research & Social Science*, 28 (6): 86–97. <https://doi.org/10.1016/j.erss.2017.04.004>.
- Heintz, J. 2012. Informality, Inclusiveness, and Economic Growth: An Overview of Key Issues. SIG Working Paper 2012/2. International Development Research Centre (IDRC): Ottawa.

- Hernandez, L., Nunn, N., Warnecke, T. 2012. Female Entrepreneurship in China: Opportunity- or Necessity-Based? *International Journal of Entrepreneurship and Small Business*, 15 (4): 411–34. <https://doi.org/10.1504/IJESB.2012.046473>.
- Herrera, J., Kuépié, M., Nordman, C., Ouidn, X, Roubaud, F. 2012. Informal Sector and Informal Employment: Overview of Data for 11 Cities in 10 Developing Countries. Working Paper 9. WIEGO: Manchester.
- Hillenkamp, I., Laville, J.L. 2014. Theory of the Social Enterprise and Pluralism: The Social Enterprise of the Solidarity Type. Paper presented at the Western ICSEM Symposium. BE: EMESNetwork: la Roche-en-Ardenne.
- Holy, A. von, Makhoane, F.M. 2006. Improving Street Food Vending in South Africa: Achievements and Lessons Learned. *International Journal of Food Microbiology*, 111 (2): 89–92. <https://doi.org/10.1016/j.ijfoodmicro.2006.06.012>.
- ILO. 2012. *The Informal Economy and Decent Work: A Policy Resource Guide supporting Transitions to Formality*. ILO: Geneva.
- ILO. 2018. Women and Men in the Informal Economy: A Statistical Picture. Third Edition. Geneva: International Labour Organization. Available online at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf, accessed 5 October 2018.
- IMF. 1998. Senegal—Enhanced Structural Adjustment Facility Policy Framework Paper, 1998–2000, Available from: <http://www.imf.org/external/np/pfp/senegal/senge00.htm>. Accessed in 25 July 2018.
- International Labour Organization Report 2014. Available from: <http://www.ilo.org/global/research/global-reports/world-of-work/2014/lang--en/index.htm>. Accessed in 20 July 2018.
- Kabeer, N. 2012. Women’s Economic Empowerment and Inclusive Growth: Labour Markets and Enterprise Development. SIG Working Paper. School of Oriental and African Studies, UK.
- Langowitz, N., Minniti, M. 2007. The Entrepreneurial Propensity of Women. *Entrepreneurship Theory and Practice*, 31 (3): 341–64. <https://doi.org/10.1111/j.1540-6520.2007.00177.x>.
- Lues, J., Rasephei, M., Venter, P., Theron, M. 2006. Assessing Food Safety and Associated Food Handling Practices in Street Food Vending. *International Journal of Environmental Health Research*, 16 (5): 319–28. <https://doi.org/10.1080/09603120600869141>.
- Malunda, D. 2012. Rwanda Case Study on Economic Transformation, Institute of policy analysis and research – Rwanda (IPAR): Kigali.
- Medina, L. et al. (2017). The Informal Economy in Sub-Saharan Africa : Size and Determinants, FMI working papers, Available from: <https://www.imf.org/en / Publications /WP/Issues/2017/07/10/The- Informal-Economy-in-Sub-Saharan-Africa-Size-and-Determinants-45017-> Accessed in 25 July 2018.
- Ministry of Trade and Industry. 2010. Small and Medium Enterprises (SMEs) Development Policy. Available online at: http://www.minicom.gov.rw/fileadmin/minicom_publications/policies/SME_Devt_policy_V180610.pdf, Accessed 5 October 2018
- Minniti, M., Nardone, C. 2007. Being in Someone Else’s Shoes: The Role of Gender in Nascent Entrepreneurship. *Small Business Economics*, 28 (2–3): 223–38. <https://doi.org/10.1007/s11187-006-9017-y>.
- Mohideen, R. 2012. The Implications of Clean and Renewable Energy Development for Gender Equality in Poor Communities in South Asia. In 2012 IEEE Conference on Technology and Society in Asia, 1–6. <https://doi.org/10.1109/TSAsia.2012.6397976>.
- Mohlakoana, N., Groot, J. de, Knox, A., Bressers, H. 2018. Determinants of Energy Use in the Informal Food Sector. *Development Southern Africa*, 0 (0): 1–15. <https://doi.org/10.1080/0376835X.2018.1526059>.
- Monteith, W., Giesbert, L. 2017. “When the Stomach Is Full We Look for Respect’: Perceptions of ‘Good Work’ in the Urban Informal Sectors of Three Developing Countries. *Work, Employment and Society*, 31 (5): 816–33. <https://doi.org/10.1177/0950017016650606>.
- Muzaffar, A.T., Huq, I., Mallik, B.A. 2009. Entrepreneurs of the Streets: An Analytical Work on the Street Food Vendors of Dhaka City. *International Journal of Business and Management*, 4 (2): 80. <https://doi.org/10.5539/ijbm.v4n2p80>.

- Narain, S. 2009. Gender and access to finance. Analytical Paper, World Bank. Available online at: <http://catalog.ihnsn.org/index.php/citations/29530>, accessed 20 January 2017.
- Namugumya, B.S., Muyanja, C. 2012. Contribution of Street Foods to the Dietary Needs of Street Food Vendors in Kampala, Jinja and Masaka Districts, Uganda. *Public Health Nutrition*, 15 (8): 1503–11. <https://doi.org/10.1017/S1368980011002710>.
- Neves, D., du Toit, A. 2012. Money and Sociality in South Africa’s Informal Economy. *Africa*, 82 (SI 01): 131–149. <https://doi.org/10.1017/S0001972011000763>.
- Ohiokpehai, O. 2003. Nutritional Aspects of Street Foods in Botswana. *Pakistan Journal of Nutrition* 2 (2). <https://doi.org/10.3923/pjn.2003.76.81>.
- Ola-David, O., Oyelaran-Oyeyinka, O. 2014. Smart Economics: Inclusive Growth, Poverty Alleviation and Decent Employment in Nigeria. SSRN Scholarly Paper ID 2505264. Rochester, NY: Social Science Research Network. Available online at: <https://papers.ssrn.com/abstract=2505264>.
- Pavlovic, I. 2016. Factors contributing to the exclusion of the iSMEs, particularly informal Micro Enterprises (iME), from the Small and Medium Enterprises policies in Rwanda and Senegal. Master Thesis on Public Administration. Available from: https://essay.utwente.nl/70753/1/Pavlovic_MA_Faculty%20of%20Behavioral,%20Management%20and%20Social%20Sciences.pdf Accessed in 25 of July, 2018. University of Twente.
- Philip, K., Hassen, E. 2008. The Review of Second Economy Programmes, an Overview for the Presidency's Fifteen Year Review. TIPS: Johannesburg.
- Preisendörfer, P., Bitz, A., Bezuidenhout, F. 2012. Business Start-Ups and Their Prospects of Success in South African Townships. *South African Review of Sociology*, 43 (3): 3–23. <https://doi.org/10.1080/21528586.2012.727542>.
- Privitera, D., Nesci, F.S. 2015. Globalization vs. Local. The Role of Street Food in the Urban Food System. *Procedia Economics and Finance, 2nd International Conference*. Economic Scientific Research - Theoretical, Empirical and Practical Approaches”, ESPERA 2014, 13-14 November 2014, Bucharest, Romania, 22 (January): 716–22. [https://doi.org/10.1016/S2212-5671\(15\)00292-0](https://doi.org/10.1016/S2212-5671(15)00292-0).
- Ramani, S.V., Thutupalli, A., Medovarszki, T., Chattopadhyay, S., Ravichandran, V. 2013. Women Entrepreneurs in the Informal Economy: Is Formalization the Only Solution for Business Sustainability? MERIT Working Papers 018, United Nations University - Maastricht Economic and Social Research Institute on Innovation and Technology (MERIT).
- Samapundo, S., Climat, R., Xhaferi, R., Devlieghere, F. 2015. Food Safety Knowledge, Attitudes and Practices of Street Food Vendors and Consumers in Port-Au-Prince, Haiti. *Food Control*, 50 (4): 457–66. <https://doi.org/10.1016/j.foodcont.2014.09.010>.
- Shea, G. 2018. Best 23 cities for street food from Miami to Tokyo Available online at: <https://edition.cnn.com/travel/article/best-cities-street-food/index.html>, Accessed 17 September 2018.
- Skinner, C. 2016 Informal Food Retail in Africa: A Review of Evidence Consuming Urban Poverty Project Working Paper Series, no 2. University of Cape Town, 23. Available online at: https://www.researchgate.net/publication/319234135_Informal_Food_Retail_in_Africa_A_Review_of_Evidence_Consuming_Urban_Poverty_Project_Working_Paper_Series. Accessed 20 of July, 2018 2018. DOI: 10.13140/RG.2.2.33043.37922. Accessed 29 August 2018.
- Skinner, C. 2010. Challenging City Imaginaries: Street traders’ struggles in Warwick Junction. *Agenda* 23(81): 101-109.
- Skinner, C. Informal Sector Employment: Policy Reflections. REDI3*3 Conference, 28 November 2016, Cape Town. Available online at: <https://www.africancentreforcities.net/wp-content/uploads/2016/12/REDI-input-Skinner-final.pdf>. Accessed in August, 2018.
- Skinner, C., Haysom, G. 2016. The Informal Sector’s Role in Food Security: A Missing Link in Policy Debates? Working Paper 44. Cape Town: PLAAS, UWC and Centre of Excellence on Food Security. Available online at: <https://www.plaas.org.za/sites/default/files/publications-pdf/WP44%20SkinnerHaysom.pdf>. Accessed in 25 of July, 2018.
- Sovacool, B. 2013. A Qualitative Factor Analysis of Renewable Energy and Sustainable Energy for All (SE4ALL) in the Asia-Pacific. *Energy Policy* 59(8): 393–403. <https://doi.org/10.1016/j.enpol.2013.03.051>.

- Statistics South Africa. 2016. Community Survey 2016 - Statistics South Africa. Available online at: <http://stats.sa.2016.pdf>. Accessed 20 July 2018.
- Steyn, N.P., Mchiza, Z., Hill, J., Davids, Y., Venter, I., Hinrichsen, E., Opperman, M., Rumbelow, J., Jacobs, P. 2014. Nutritional Contribution of Street Foods to the Diet of People in Developing Countries: A Systematic Review. *Public Health Nutrition*, 17 (6): 1363–74. <https://doi.org/10.1017/S1368980013001158>.
- Temkin, B.. 2009. Informal Self-Employment in Developing Countries: Entrepreneurship or Survivalist Strategy? Some Implications for Public Policy. *Analyses of Social Issues and Public Policy*, 9 (1): 135–56. <https://doi.org/10.1111/j.1530-2415.2009.01174.x>.
- UN. 2016. Goal 5: Achieve Gender Equality and Empower all Women and Girls. Available online at: <http://www.un.org/sustainabledevelopment/gender-equality/>, accessed 17 June 2016.
- UN-WOMEN. 2010. *Women's empowerment principles*. United Nations: New York.
- UNDP. 2011. Towards and Energy Plus Approach for the Poor – A Review of Good Practice and Lessons from Asia and the Pacific. Available online at: http://www.undp.org/content/undp/en/home/librarypage/environment-energy/sustainable_energy/towards_an_energyplusapproachforthepoorareviewofgoodpracticesand.html, Accessed 4 November 2018.
- Webb, J.W., Ireland, R.D., Ketchen, D.R. 2014. Toward a greater Understanding of Entrepreneurship and Strategy in the Informal Economy, *Strategic Entrepreneurship Journal*, 8 (1), 1-15.
- WIEGO. 2017. "Rethinking Formalization: The WIEGO Perspective." Women in Informal Employment: Globalizing and Organizing (WIEGO). Available online at: <http://wiego.org/informal-economy/rethinking-formalization-wiego-perspective>, accessed 1 November 2018.
- Woodward, D., Rolfe, R., Ligthelm, A., Guimarães, P. 2011. The Viability of Informal Microenterprise in South Africa. *Journal of Developmental Entrepreneurship*, 16 (1), 65–86.
- Xheneti, Mirela, Adrian Madden, and{Bibliography} Shova Thapa Karki. 2017. "The Value of Formalisation for Women Entrepreneurs in Developing Contexts - A Review and Research Agenda." *International Journal of Management Reviews*, 1–27.

ANNEX 2 : COUNTRY CASE STUDIES AND WORKSHOP PROCEEDINGS

11.1. Country Case Studies

11.2. RWANDA Case Study

11.2.1. Introduction

Rwanda's informal sector operates in a highly regulated environment and one in which the government intends to formalise (Hillenkamp and Laville, 2014). The informal sector, including the Informal Food Sector (IFS), is governed by theories of modernisation. In this report, the section on Rwanda presents three main interlinked factors constituting the core of our research: gender, energy, and informal food sector. The section also describes how the research is positioned and shaped with respect to the country situation and finally we provide a comparative analysis with the other two target countries.

11.2.2. Energy, gender and the informal economy in Rwanda

The second Economic Development and Poverty Reduction Strategy (EDPRS 2)¹⁷ for the period 2013-2018 defines the medium-term strategy outlining Rwanda's overarching goal to accelerate growth and reduce poverty through four thematic areas: economic transformation, rural development, productivity and youth employment, and accountable governance.

Energy sustainability is priority number 1 of the economic transformation. Specifically, increasing the domestic interconnectivity of the Rwandan economy through investments in hard and soft infrastructure by meeting the energy demand of the private sector is key to the development strategy of the country. To increase energy generation to meet projected future demand and better develop Rwanda's indigenous sources of energy, EDPRS2 proposes two measures: (i) the development of a clear roadmap for investment in electricity generation; and (ii) a new approach to leveraging private sector investment in the sector. The DPRS2 also acknowledges that while all households will require access to modern energy sources, the levels of consumption for some are too low to justify a grid connection. Therefore off-grid options, such as solar and biogas, are the most economical and sustainable options for poor households. Supporting biomass and other modern cooking sources will also support rural households.

Gender equality is also among the top cross-cutting issues, and women representation in decision making positions makes Rwanda the world leader in the proportion of women in Parliament (56,3%). In addition, a conducive policy and legal framework for mainstreaming gender in socio-economic sectors at all levels is in place (existence of a national gender policy, gender sensitive laws such as Gender Based Violence (GBV) law, inheritance law, land law, etc.). Pro-poor and gender friendly programs such Girinka were initiated as well as gender mainstreaming programs/projects such as the Gender Responsive Budgeting Initiative. The 2010 National Gender Policy aims to significantly reduce the number of women involved in the care economy through training and facilitating access to credit. The government will also run a campaign to improve women's position in the labor market and to change attitudes towards the kind of jobs that men and women can do.

Formalisation of economy remains a key challenge for the country, given that in 2011, Rwanda's formal private sector employed a mere 4% of the country's labor force, and informal workers make up 17% of the population. The demographic trend necessitates 200,000 jobs to be created each year for new entrants into the workforce.

¹⁷EDPRS 2: http://www.minecofin.gov.rw/fileadmin/templates/documents/NDPR/EDPRS_2.pdf

This compares to a total of 396,000 waged jobs in the formal economy today, meaning that Rwanda will need to see a significant increase in both formal and informal jobs over the period of EDPRS 2. Only if Rwanda's job market entrants are used productively in the economy can Rwanda's growth be sustained and accelerated. This in turn requires a transformation of economic structures to spur the movement of people away from scarce agricultural land into higher productivity non-agricultural activities that provide jobs and facilitate the movement of people to urban areas.

11.2.3. Gender policy

Rwanda pursues its national Gender Policy through the Ministry of Gender and Family Promotion, whose vision is to "create a conducive environment for the family stability, gender equality and child protection towards sustainable development".¹⁸ A Gender Monitoring Office monitors performance, supported by the National Women's Council. As proof of the commitment of the Government to achieve gender equality in the country, Rwanda is the first country in the world to have achieved the target of 50% of parliamentarians being women.¹⁹ However, there's little evidence that such policies have as yet had a significant impact on the lives of the majority of Rwandan women. This is especially true in agriculture that is a major source of employment for women but where the policies seem to have had very little impact.²⁰ The authors of the UNDP 2007 country report,²¹ for example, conclude that the achievements of political representation have not translated into significant differences for the majority of women, such gender-responsive budgeting for all ministries, which has not been enforced properly. Even young educated women are able to exert only very limited control over their own lives.²² While a strong political will and target-driven gender policies offer opportunities for promoting gender equality, the transformative potential of such policies is often jeopardised by: (i) an underlying economic rationale that neglects women's domestic labour; (ii) the limited scope for civil society organisations to influence policy; and (iii) the lack of grassroots participation.²³ Therefore, whilst a top-down approach to gender policies remains strong in the agenda of the Government, more is needed for real changes in deep-rooted social norms and practices within which gender inequalities are embedded. Despite all Governmental intentions, Rwanda remains a deeply patriarchal society and cultural attitudes to women remain negative, especially in rural areas (See final report Chapter 2 for research background). According to Burnet²⁴, marital discord because of women empowerment remains strong, with rural women attributing the increased discord to men's ignorance about women's dignity and rights. A Rwandan proverb still very popular in the country states that '*a vocal wife in the home means that there is little peace of harmony in the family*'. Rwandan customs call ideologically for a wife's submission to her husband and his decisions.

11.2.4. Economic and political

Rwanda is a small land-locked country of 26,000 km². With a population of around 10.3m (2010) it is densely populated relative to other African countries. In 2010, GDP was 548 USD/capita. Rwanda's economy has been growing steadily at an annual average rate of 8.3% and government is targeting to achieve an annual average growth rate of 11.5% over the period (2017/2018). This is the time period covered by Rwanda's second Economic Development and Poverty Reduction Strategy (EDPRS II) which covers 4 thematic areas of achieving rapid

¹⁸ Republic of Rwanda. Ministry of Gender and Family Promotion. National Gender Policy, July 2010.

¹⁹ Oxford Human Rights Hub, 2015.

²⁰ Rwanda Economic Update: World Bank. Edition No. 9, February 2016.

²¹ S. Leander, Turning Vision into Reality: From Recovery to Human Development, United Nations Development Programme (2007).

²² L. C. McLean Hilker, Navigating Adolescence and Young Adulthood in Rwanda During and After the Genocide: Intersections of Ethnicity, Gender and Age, 12(3) Children and Geographies (2014) 354-368.

²³ Oxford Human Rights Hub, 2015.

²⁴ "J. E. Burnet, Women have Found Respect: Gender Quotas, Symbolic Representation, and Female Empowerment in Rwanda, 7 Politics and Gender (2011) 303-344.

economic growth, rural development, productivity and youth employment, and accountable governance. Ensuring access to affordable and modern sources of energy has been identified within the EDPRS II as an essential component to achieving these objectives.

11.2.5. Formal and informal economy

Rwanda's informal sector operates in a highly regulated environment and semiformal might be a better term for it. The government intends to formalise all informal activities in all economic sectors in the near future, governed by theories of modernisation. The agency in charge of private sector development is the Rwanda Development Board (RDB including working with and addressing the needs of companies of all sizes and both local and foreign investors. All businesses in the country are required to be registered at the Rwanda Development Board where between 2012 and 2015 the proportion of licensed business activities increased from 66% to 95%.²⁵ It is relatively simple to register a new business, even for an individual, through RDB's "one stop centre". Rwanda ranked 2nd in sub-Saharan Africa and 41st globally in 2018 according to the World Bank's database for the ease of doing business²⁶. More specifically to the ENERGIA study and the small businesses targeted by it, Rwanda excels in registering property (2nd place overall) and getting credit (16th place overall), but performs poorly in getting electricity (119th overall), which is quite critical for the scope of the research.

11.2.6. Energy policy/situation

Access to affordable and clean energy for all is a major challenge for Rwanda, which is experiencing a rapid socio-economic development and increasing electricity demand. At the same time, biomass use is increasing and resources may come under increasing pressure due to increasing population and consumption.

Electricity

The Government of Rwanda, under its latest Economic Development and Poverty Reduction Strategy, envisions transitioning from a developing country to a middle-income country by 2020. Rwanda's ability to achieve this ambitious goal is constrained by major challenges in the power sector²⁷. Based on current data, Rwanda's national electrification rate reached 29.37% (7,92% rural, 79,97% urban) in 2016, with about 209 MW of installed generation capacity²⁸. While this is a tremendous sign of progress – on-grid access has quadrupled in about 5 years – but as many as 8 million people still lack of electricity. Current annual consumption of electricity per capita is among the lowest in Africa, with approximately half of consumers using an average of less than 20 kWh/month which influences the viability of the utility. Although domestic demand is expected to grow steadily in the future, industrial demand needed to increase prosperity is also lagging.

The Ministry of Infrastructure (MININFRA) is in charge of the country's national energy policy. In an effort to reach the 100 percent access target by 2020, MININFRA developed a Rural Electrification Strategy, which was approved by Cabinet in April, 2016. This strategy revised the target of providing 70 percent access to electricity by June 2018 with on-grid connections, to a target of 22 percent of households gaining access to a Tier 1 energy service (as defined in the SE4ALL Multi-Tier Framework) and 48 percent of households gaining access to on-grid or at least Tier 2 energy service.²⁹

Biomass

²⁵ Rwanda Development Board. (RDB): www.rdb.rw

²⁶ <http://www.doingbusiness.org/rankings>

²⁷ Since 2008, the power supply has grown by only 10 percent, while annual peak demand has grown from approximately 50 MW to 87.9 MW in 2013. Future demand is projected to reach 470 MW. (https://www.usaid.gov/sites/default/files/documents/1860/RwandaCountryFactSheet__2016.09%20FINAL.pdf)

²⁸ <https://www.usaid.gov/powerafrica/rwanda>

²⁹ <https://www.seforall.org/sites/default/files/Electrification.pdf>

In the biomass sector, major transformations are required to bring production and consumption of wood-fuel into balance. Biomass accounts for 90,53% of Rwanda's overall primary energy demand³⁰ with 99% of all households use biomass for cooking. Continuing to rely on current biomass technologies for cooking in urban areas by 2030 would threaten to seriously deplete Rwanda's forestry plantations as population and urbanisation continues to grow. To address this, much more efficient technologies will be required: i) advanced cookstoves rated tier 3 or 4 by ISO standards can save more than 60% wood compared to current methods, ii) charcoal production needs to improve yield from 11% to 18% through more appropriate regulatory regimes and improved technology iii) switching from charcoal to alternatives like biomass pellets and LPG in urban areas and biogas in rural areas will reduce wood fuel consumption, iv) productivity of forestry and agroforestry can be significantly improved through regulatory reform, better management, and introducing better quality stock.³¹

11.2.7. Positioning of research at the country level

Research area 2: Productive uses of energy of the ENERZIA international network on gender and sustainable energy³² initiative aims to investigate the three topics of gender, energy and informal economy by focusing on the informal food sector (IFS). This is because this sector is alleged to have strong linkages with gender empowerment not only in the public sphere, but also at household level, where access to modern energy services is believed to empower women in their daily tasks of food processing and cooking. Finally, the level of sector formalisation was investigated to assess whether this might affect in the overall empowerment of women through access to modern energy sources. The methodology and the preliminary results of the first phase of the research project are presented below.

11.2.8. Gender and ownership

Our scoping phase survey showed that women engage in SFS at an earlier age than men, but ownership remains stronger for older men. Women start working and owning businesses at age 18-24, peak at 25-34, and then decrease; men start owning businesses at age 25-34, then ownership increases steadily.

In Rwanda, SFS businesses only last few years, especially for men (see Chapter 7). Most businesses last less than 1 year, with very few going beyond 5-10 years of operations; whilst most women operate businesses in the range 0-5 years, men either run them very briefly or engage for longer time.

A higher share of men chooses to enter the IFS for choice compared to women, and more consolidate businesses are motivation driven. Men are more willing to enter the IFS for choice rather than necessity; older businesses are motivated by mixed reasons: search for independence and survival.

11.2.9. Energy

Charcoal is by far the most used source of energy, and it's largely supplied by external providers, for the quasi-totality men, for free at no cost. This is true for 70% of SFS operators owners who use charcoal. Wood is the next most-used source of energy, with negligible differences between men and women.

Despite its recognized potential to improve business, electricity is used for basic services only. More than 80% of businesses use electricity for lighting, charging phones and few other basic services, with negligible differences between men and women; with the exception of gas stoves, in high demand among women, all other appliances that are considered to improve the business run on electricity.

³⁰ <https://trackingsdg7.esmap.org/country/rwanda>

³¹ Rwanda Energy Group: <http://www.reg.rw/what-we-do/biomass/>

³² More information on: <http://www.enerzia.org/research/gender-energy-research-programme/research-area-2-productive-uses-of-energy/>

11.2.10. Regulation

The food sector, like most other sectors in Rwanda, is highly regulated and interviewees recognize the added value of paying local taxes and the return they obtain in terms of street cleaning and lighting, safety. Shares of unregulated businesses seem to be higher than official figures; local business licenses are paid by most operators, with a slight decline among women.

11.2.11. Positioning at the regional level

Compared to the other two countries of the research area, Senegal and South Africa, the food sector in Rwanda is more gender-balanced and regulated. Men are more likely to own SFS businesses in Rwanda than in other countries; regulation and payment of permits applies to more than three quarters of the interviewees; Rwanda operators are more likely to pay for rent, due to higher formalisation.

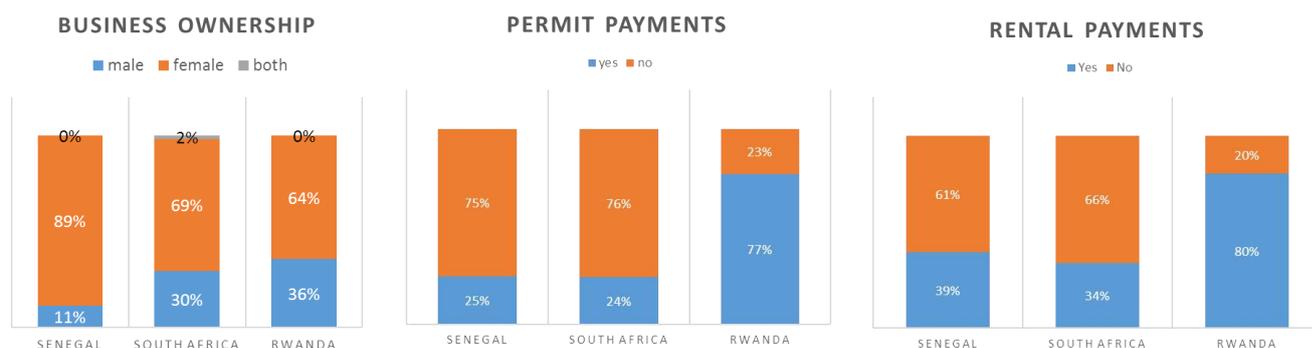


Figure 10.3: Business ownership

Figure 10.2: Permit payments

Figure 10.1: Rental payments

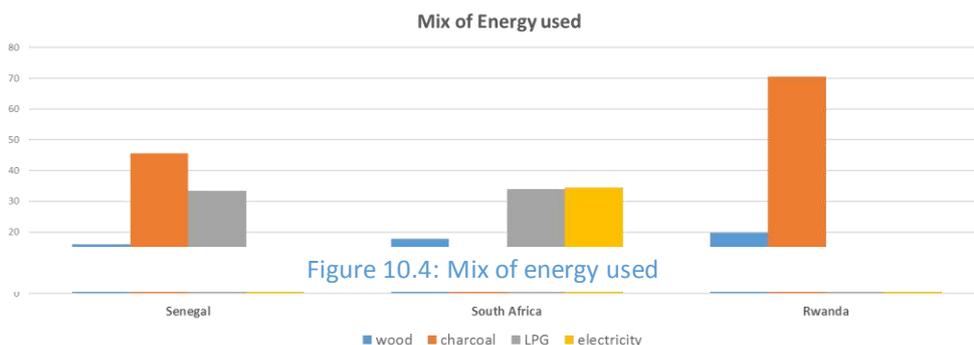


Figure 10.4: Mix of energy used

In Rwanda, the energy mix is limited to traditional fuels – such as charcoal and wood – to the detriment of modern energy sources – such as LPG and electricity. Compared to other countries, the energy mix is sub-optimal; Incentives for modern energy uses could increase productivity and attractiveness of the sector.

11.3. SOUTH AFRICA Case Study

11.3.1. Introduction

This part of the report focuses on South Africa, one of the three case study areas for this study. The next sections provide a brief background to South Africa and the informal economy, discuss energy statistics, policy and access and a discussion of the gender policy and practice.

11.3.2. Background to South Africa

South Africa, located at the Southernmost tip of Africa has a population of around 53 million³³. Since the end of Apartheid, the racial segregation that characterised South Africa and was enforced through legislation from 1948-1994, its economy has grown rapidly, and the country is now one of the most developed nations in Africa. The political change in South Africa since the end of apartheid was focused on redistribution, in an attempt to overcome the vast inequalities across racial groups and improve the conditions of its non-white population. Still, over 16% of its inhabitants live below the poverty line³⁴, and with a Gini coefficient of 65, it is the second most unequal country in the world. This is as a direct result of the apartheid laws and has led to among other things, energy poverty and vulnerability of the majority of citizens (Knox et al. 2017). Table 1 shows some key demographic characteristics of the country.

Demographic profile	
Population (2013)	52.98 million ³⁵
Urban population (2013)	62.9%
Rural population	37.1%
Age structure	
Under 15 years of age	29.9%
Between 16-64	65.3%
Over 65	4.8% ³⁶
Average household size (2011)	3.4 ³⁷
Life expectancy at birth, total (years) based on 2012 results	56 ³⁸
HDI Rank (Human Development Index)	121 (out of 186)
Gini index	65.0 ³⁹

Table 10.1: Summary of demographic characteristics of South Africa

11.3.3. The Economy: formal and informal

South Africa's economy is driven by its abundance of natural resources, and the country has well-developed financial, legal energy and transport sectors. South Africa also has a very large informal economy.

In South Africa, both national and local government impact the informal economy in what may seem to be a poorly coordinated fashion. At a local level, bylaws determine where informal street traders can and cannot

³³ <http://data.worldbank.org/country/south-africa>

³⁴ <https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html>

³⁵ <http://data.worldbank.org/country/south-africa>

³⁶ OECD Economic Surveys 2013 - based on OECD.STAT (<http://stats.oecd.org>); *OECD Economic Outlook Database*

³⁷ Census 2011: Statistics South Africa. Census 2011. Pretoria: Statistics South Africa; 2012. [http://www.statssa.gov.za/Local copy: -Statistical release P0301.4.](http://www.statssa.gov.za/Local%20copy%20-%20Statistical%20release%20P0301.4)

³⁸ <http://databank.worldbank.org/data/views/reports/tableview.aspx>

³⁹ <http://data.worldbank.org/indicator/SI.POV.GINI>

operate and at the national level, the Presidency includes the informal economy in its strategy for the 'second economy' which refers to the informal economy and is discussed in Chapter 9 Aspirations to formalise .

*"The 'first' and 'second' economies represent two ends of the spectrum within South Africa's highly unequal economy, with wealth and resources concentrated at one end, and poverty and disadvantage at the other."*⁴⁰ The African National Congress (ANC) is the ruling party and believes that the 'second economy' represents the legacy of inequality and marginalisation imposed by the former apartheid regime; and the ANC seeks to understand how and why these conditions are still being reproduced. In terms of the inequality between the first and second economies, "the challenge, therefore, is not only to strengthen linkages and access, but also to address the terms on which these take place, the spread of benefits within such relationships, and issues of power."⁴¹

For many of South Africa's poorest people, often women, having a small business is an essential part of their lives, and they often enter the informal sector as a way to escape poverty or other difficult situations such as high unemployment, which ranges from 27% nationally to over 50% in townships⁴² . In addition, the informal sector provides them with the flexibility to combine family life with an income, something that is often unsuited to formal employment. Evidence was found that through entrepreneurship, women sought the opportunity to expand their skills, experience and the freedom to control their destiny.⁴³ Yet, female entrepreneurs in the sector face significant entry barriers in urban and national markets in South Africa, including gender discrimination and stereotyping.

In South Africa in 2012, an estimated 2.1 million people were employed or operating in the informal economy, of which about 57% were men and just over 41% were women. Informal economy participation is highest in Limpopo province (34% of total economic activity), and is more than 20% of non-agricultural employment in Mpumalanga, the Eastern Cape, the Free State and KwaZulu-Natal. However, the African National Congress (ANC) which has ruled South Africa since its transition to a non- racial democracy views the informal economy as a problem that must be addressed, calling it a 'second economy' that represents the legacy of inequality and marginalisation imposed by the former apartheid regime. This view has caused a tense relationship between authorities such as city officials and police and street vendors, including the IFS, which was prevalent during apartheid and persists in the post-apartheid era.

The informal food sector in South Africa is not gender balanced: more women than men own an enterprise in the sector in general. In line with findings from Senegal, around three quarters of research participants do not pay for permits. This is very different in Rwanda, where around 77% of respondents had a permit. Similarly, most South African respondents do not pay for rent in their enterprises, as the sector is not very formalised.

Both South African and Senegalese women own the older enterprises compared to Rwanda.

		< 1 year	Between 1 and 5 years	Between 5 and 10 years	More than 10 years
South Africa	Male owned	22,2%	50,0%	11,1%	16,7%
	Female owned	11,9%	23,8%	23,8%	40,5%
Rwanda	Male owned	65,0%	25,0%	10,0%	0,0%
	Female owned	50,0%	47,2%	2,8%	0,0%
Senegal	Male owned	14%	28,5%	43%	14%

⁴⁰ Philip, K., Hassen, E.K. (2008).The Review of Second Economy Programmes, An Overview For the Presidency's Fifteen-^o©-Year Review. Johannesburg: TIPS.

⁴¹ Philip, K., Hassen, E.K. (2008).The Review of Second Economy Programmes, An Overview For the Presidency's Fifteen-^o©-Year Review. Johannesburg: TIPS.

⁴² <https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html>, (Kuijper, 1993).

⁴³ E.H.Buttner and D.P.Moore, 'Women's Organizational Exodusto Entrepreneurship: Self-reported Motivations and Correlates with Success', Journal of Small Business Management, XXXV-1 (1997);

S. Cromie, 'Motivations of Aspiring Male and Female Entrepreneurs', Journal of Occupational Behavior, VIII (1987)

	Female owned	7%	26%	22%	44%
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Table 10.2: Age of enterprise

11.3.4. Informal sector policy

The informal sector is acknowledged, however, and even supported through a range of national and local government policies, regulations and bye-laws. Within the three provinces in this research, a number of local government policies affect the IFS: the 2001 eThekweni Informal Economy Policy and the KZN Green paper on the Informal Economy (Durban) for Durban, The City of Johannesburg’s Informal Trading Policy of 2006 and the Johannesburg Fresh Produce Market for Johannesburg, and the Informal Trading Development for Cape Town. In Durban, (eThekweni municipality jurisdiction) the eThekweni municipal officials instigated a participatory process with the view of incorporating the needs of informal economy participants in new informal trading policies and bye-laws. However, traders felt that the process entailed a low form of participation largely limited to sharing information rather than decisions. The same is true for the city of Johannesburg.

11.3.5. Energy statistics

Historically, the energy sector is critical to the economy of South Africa, as it relies heavily on large-scale, energy intensive mining activities. Because proved oil reserves and natural gas are limited, the country uses its large coal deposits to meet most of its energy needs. This has resulted in South Africa being one of the most polluting electricity industries in the world. Furthermore, South Africa has the highest energy consumption on the continent, which accounted for about 30% of total primary energy consumption in Africa in 2012.⁴⁴ A summary of key statistics for South Africa’s Energy sector is given in Table 3.

Electricity Installed generating capacity (2010 est)	44.26 million kW ⁴⁵
Electricity produced and available for distribution in 2014	252 578 GWh ⁴⁶
Total primary energy supply per capita (toe 2010)	2.7
Energy consumption per capita (kilograms oil equivalent) in 2010	2452 ⁴⁷

Table 10.3: Energy statistics of South Africa

Despite the abundance of energy available in the country, many South Africans lack access to clean and affordable energy.

In Sub-Saharan Africa, solid biomass remains a primary energy source for cooking, predominantly among rural households⁴⁸. In comparison with the rest of the Sub-Saharan Africa, where over 50% of the population in 42 countries (and more than 90% in 23 countries) are reliant on the traditional use of solid biomass for cooking, South Africa has an exceptionally high use of energy (Figure 6). In rural areas solid biomass, particularly firewood and agricultural residues are used ‘almost exclusively’ as the primary fuel source for cooking with the exception of South Africa where electricity is more widely used.⁴⁹

⁴⁴ REF BP Statistical Review of World Energy 2013

⁴⁵ <https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html>

⁴⁶ <http://www.statssa.gov.za/?p=4045>

⁴⁷ <https://data.un.org/CountryProfile.aspx?crName=SOUTH%20AFRICA>

⁴⁸ International Energy Agency.2014. World Energy Outlook. Available: <https://www.iea.org/publications/freepublications/publication/WEO2014.pdf> [2016, March 5].

⁴⁹ International Energy Agency.2014. World Energy Outlook. Available: <https://www.iea.org/publications/freepublications/publication/WEO2014.pdf> [2016, March 5].

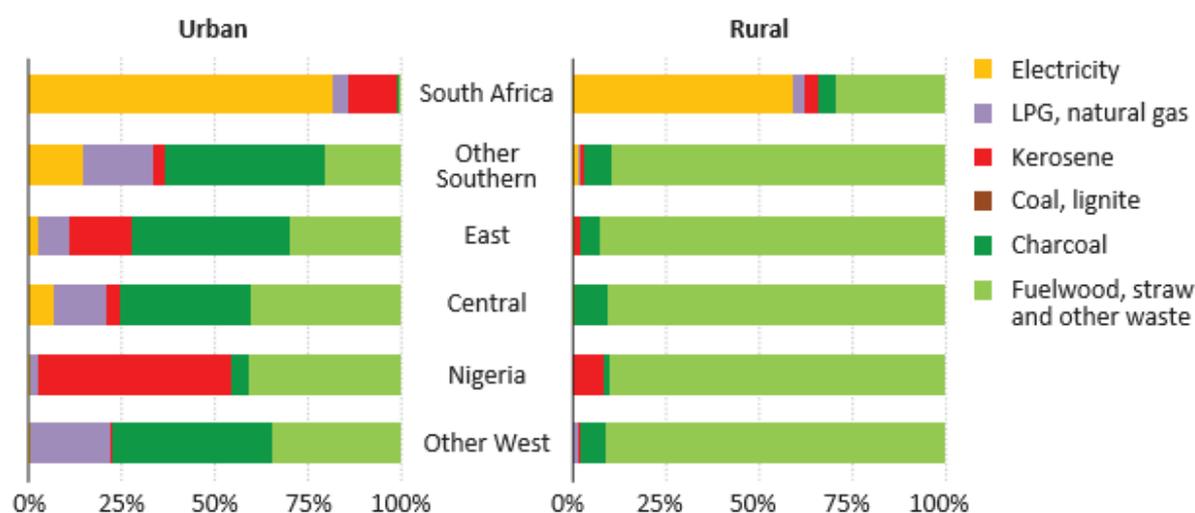


Figure 10.5: Primary energy sources for cooking in Sub-Saharan Africa (IEA, 2014)

South Africa is an exception with a national electrification rate of 85%, which is substantially higher than other Sub-Saharan African countries. According to the national census 73.9% of the population use electricity for cooking, 58.8% use electricity for heating and 84.7% use electricity for lighting. It is estimated that close to three quarters of rural households living under a traditional authority and 58% of rural farms residents use firewood as a primary energy source in comparison with 17% of households in urban informal settlements and 11% in formal urban areas⁵⁰.

However, increasing access to electricity for South Africa's population has been a key challenge for South Africa for two decades, and the Department of Energy is working towards universal access by 2025. To achieve this, it aims to deploy different technologies to achieve, cleaner, safer and affordable energy⁵¹. Yet, measured purely in terms of electricity access, South Africa is a major energy access success story, connecting 5.4 million households since, and achieving electrification rates close to 90% in urban areas from a mere 30% in 1994. This is in part achieved through the National Electrification programme, which was implemented by Government, Eskom and municipalities since the end of Apartheid in 1994. Compared with the Sub-Saharan region, shown in Figure 6, in which around 32% of people on average have access to electricity, South Africa's electricity access is among the highest of the continent. Figure 7 shows the access to electricity in South Africa based on the latest Energy Household Survey.

⁵⁰ Department of Energy. 2013. *A Survey of Energy Related Behaviour and Perceptions in South Africa: The Residential Sector*. Available: <http://www.energy.gov.za/files/media/Pub/DoE-2013-Survey-of-EnergyRelated-Behaviour-and-Perception-in-SA.pdf> [2015, October 18].

⁵¹ http://www.energy.gov.za/files/au_frame.html

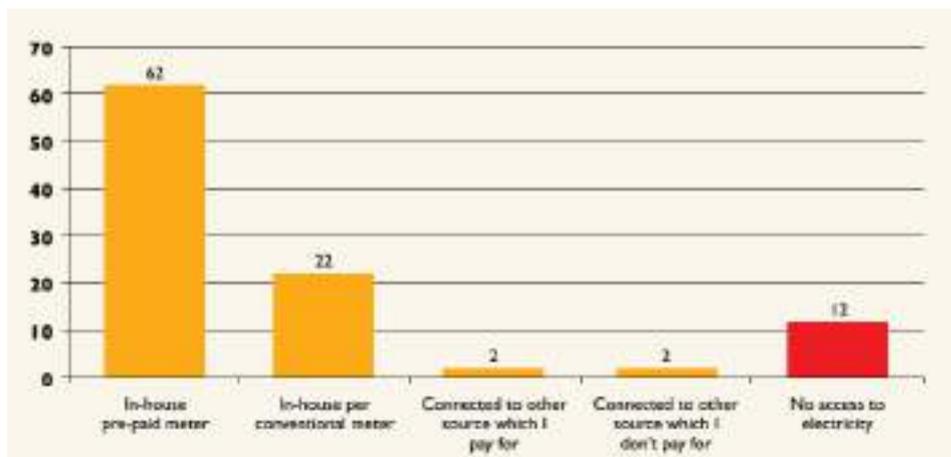


Figure 10.6: Access to electricity percent⁵²

The results of the survey are in line with the electrification rates reported nationally. As the Figure shows, still around 12% reports to have no access to electricity. Table 4 shows some dominant trends in access rates and fuel choice since 1996.

Grid Electrification	
Current electrification rate	85% ⁵³
Urban	88% ⁵⁴
Rural	82% ⁵⁵
Population without electricity in millions	58% ⁵⁶
Electrification rate (1996)	55% ⁵⁷
Urban	27% ⁵⁸
Rural	79% ⁵⁹
Of electrified households electricity as primary source of cooking energy	77% ⁶⁰
Non-electrified households	
Firewood	54% ⁶¹
Paraffin	38% ⁶²
Proportion of population using solid fuel as primary energy for cooking	
In 1996	27.8% ⁶³
In 2011	13.5% ⁶⁴

⁵²<http://www.energy.gov.za/files/media/Pub/Survey%20of%20Energy%20related%20behaviour%20and%20perception%20in%20SA%20-%20Residential%20Sector%20-%202012.pdf>

⁵³ 2012 data : <http://www.iea.org/policiesandmeasures/energyefficiency/?country=South%20Africa>

⁵⁴ 2012 data : <http://www.iea.org/policiesandmeasures/energyefficiency/?country=South%20Africa>

⁵⁵ 2012 data : <http://www.iea.org/policiesandmeasures/energyefficiency/?country=South%20Africa>

⁵⁶ Stats SA, 2000. P. 90. Found in: http://www.erc.uct.ac.za/Research/publications/08bekker-etal_electrification%20_programme.pdf

⁵⁷National Electricity Regulator (2001) (NER) Lighting up South Africa 2001. Pretoria: NER.

⁵⁸ National Electricity Regulator (2001) (NER) Lighting up South Africa 2001. Pretoria: NER.

⁵⁹National Electricity Regulator (2001) (NER) Lighting up South Africa 2001. Pretoria: NER.

⁶⁰ <http://www.energy.gov.za/files/media/Pub/DoE-2013-Survey-of-EnergyRelated-Behaviour-and-Perception-in-SA.pdf>

⁶¹ <http://www.energy.gov.za/files/media/Pub/DoE-2013-Survey-of-EnergyRelated-Behaviour-and-Perception-in-SA.pdf>

⁶² <http://www.energy.gov.za/files/media/Pub/DoE-2013-Survey-of-EnergyRelated-Behaviour-and-Perception-in-SA.pdf>

⁶³ Census (1996:2011):

⁶⁴ Census (1996:2011):

Proportion of population using solid fuel as primary energy for heating	
In 1996	37.3% ⁶⁵
In 2011	17.6% ⁶⁶

Table 10.4: Grid electrification rates in South Africa

11.3.6. Energy policy

After the apartheid era South Africa's its economy opened up, and policies started to acknowledge international trends, including regarding energy. In 1994, following the general elections, there was a general review of policy by government, and since, focus of energy policy and regulation was on increasing energy access through the National Electrification Programme (INEP), affordability, and reshaping of energy governance structures⁶⁷. This policy targeted to reach areas in the country, which did not have a connection to the grid due to apartheid separate development policies⁶⁸.

The first policy position since the end of Apartheid was the 1998 White Paper on Energy Policy, which is based on five main policy objectives: (i) increasing access to affordable energy services; (ii) improving energy governance; (iii) stimulating economic development; (iv) managing energy-related environmental and health effects; and (v) securing supply through diversity of supply sources and primary energy carriers, with the goal to increase opportunities for energy trade⁶⁹. These five objectives form the pillars upon which South Africa's Energy sector is steered.

Anchored in the National Energy Act 2008, the Integrated Energy Plan (IEP) sets out the long-and short-term plans for electricity, gas, nuclear and liquid fuels. Integrated energy planning is undertaken to determine the best way to meet current and future energy service needs in the most efficient and socially beneficial manner, while: (i) Maintaining control over economic costs; (ii) Serving national imperatives such as job creation and poverty alleviation; (iii) Minimising the adverse impacts of the energy sector on the environment.

To address poverty and ameliorate the negative health impact arising from certain fuels, the government, as part of the objectives set out in the energy White Paper, will promote access to basic energy services for poor households⁷⁰. Table 5 shows a summary of energy expenditure and energy poverty statistics in South Africa.

High income households ⁷¹ : % of household income spent on energy	2%
Low income households ⁷² : % of household income spent on energy	25%

Table 10.5: Summary statistics for South Africa – Energy expenditure

Low income households on average spend 25% of their income on energy, whereas for high income households this is only 2%⁷³. Adding to these findings, a survey of Energy Related Poverty from DoE shows that 43% of all South African households can be classified as energy poor. Differences are observed in between rural areas, where 48% of households are energy poor, compared with 40% in urban areas. However, it is important to note that 72% of households in the poorest quintile are energy poor⁷⁴.

To assist poor households with electricity and energy provision, the Free Basic Electricity (FBE) Policy was established, whereby it provides 50-60 kWh of electricity per month free to all poor south African Households⁷⁵.

⁶⁵ Census (1996:2011):

⁶⁶ Census (1996:2011):

⁶⁷

⁶⁸ Winkler (ed.), H. (2006). Energy Policies for sustainable development in South Africa: Options For the future. Cape Town: Energy Research Centre.

⁶⁹ http://www.energy.gov.za/files/media/explained/2010/South_African_Energy_Synopsis_2010.pdf

⁷⁰ http://www.energy.gov.za/files/media/explained/2010/South_African_Energy_Synopsis_2010.pdf

⁷¹ Top 10% of country's population, based on per capita income

⁷² Bottom 10% of country's population, based on per capita income

⁷³ file:///C:/Users/Gebruiker/Downloads/GACC%20market%20assessment.pdf

⁷⁴ <http://www.energy.gov.za/files/media/Pub/DoE-2013-Survey-of-EnergyRelated-Behaviour-and-Perception-in-SA.pdf>

⁷⁵ DME 2003).

To cater for un-electrified areas, where, as indicated above, the most people do not have access to electricity and which are often located in the least developed provinces, the DME introduced the Free Basic Alternative Energy policy aimed at servicing indigent households in these areas. The subsidized alternative sources of energy include paraffin, LPG, coal and bio-ethanol gel⁷⁶. However, in practise, the subsidies are inconsistently applied by municipalities and the latter was largely used to provide subsidies for solar home systems and ethanol fuel gel⁷⁷.

11.3.7. Energy use in the informal food sector

In South Africa, the use of electricity is much higher than in the rest of the region, which is the result of the high electrification rates in the country. Levels of LPG are similar to that of Senegal. Relatively little biomass fuels – such as charcoal and wood – are used in South Africa in comparison on to the region.

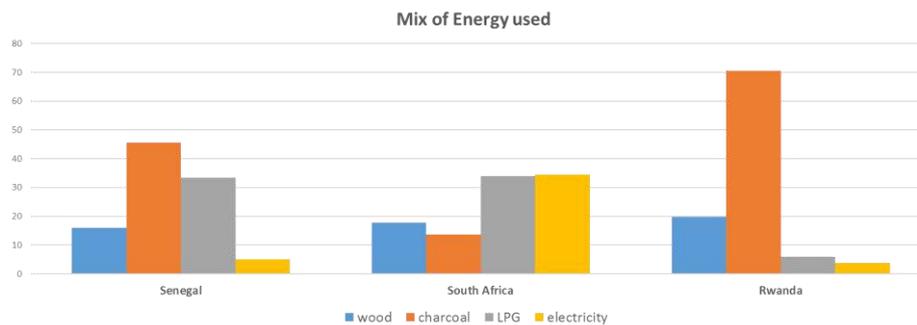


Figure 10.7: Energy use among survey respondents

11.3.8. Gender: policy and practice

At the policy level, the Constitution of South Africa recognises the right for all citizens to economic rights, regardless of gender. This Bill of Rights sets out the rights of every South African with regard to access to housing, health care, food, water and social security, as well as the right to a clean, healthy environment. However, whilst South Africa has made practical progress in addressing injustices of the past, including segregated energy-services provision, progress in addressing gender inequalities has lagged behind.

At the policy level, most progress has been made. Specifically targeting gender equality, South Africa has ratified human rights treaties that recognise gender equality including: the 1995 Beijing Platform for Action (BPFA) as part of the United Nations Fourth World Conference on Women, the African Charter on Human and People’s Rights on the Rights of Women in Africa (2005). At the National level these international commitments are reflected in the Women Empowerment and Equality Bill sets out to address gender inequality as of November 2013. The aims of the Bill are to promote women’s empowerment equality by: (i) Establishing a legislative framework for the empowerment of women; (ii) Aligning all aspects of laws and implementation of laws relating to women empowerment; (iii) Supporting the appointment and representation of women in decision making positions and structures; and (iv) providing for matters connected therewith⁷⁸. Nevertheless, energy, entrepreneurship and poverty policy largely fails to address gender-related issues. As a result, much remains to be done in the policy environment to address women’s energy, development and entrepreneurship needs.

To illustrate, similar to most countries in the world, gender inequality persists in the work place. According to the Gender Statistics in South Africa⁷⁹ within in each demographic, unemployment in women is higher than in men, while a larger percentage of women are not economically active versus men. It is also reported that women earn

⁷⁶ <http://www.energy.gov.za/files/media/Pub/DoE-2013-Survey-of-EnergyRelated-Behaviour-and-Perception-in-SA.pdf6666a666>.

⁷⁷ Wikus and Gisela review

⁷⁸ Department of Women, Children and People with Disabilities, 2013

⁷⁹ Department of Women, Children and People with Disabilities, 2013

less than men do (for example, twice as many females than men earn R1000 or less per month). Moreover, it is stated that double the amount of men than women earn R16000 or more per month⁸⁰.

11.4. SENEGAL Case Study

11.4.1. Introduction

The purpose of this profile is to provide an overview of gender and energy policies, the economic situation in Senegal. A World Bank study reveals that the informal sector 'is said to generate 97% of the job creation' in Senegal and represents 12% of the GDP⁸¹. More recently the Emergence Plan ascribes more than half the GDP to the informal sector and indexes it as 'a constraint on the structural change in the economy', while acknowledging that it is 'often the sole opportunity of economic inclusion'.

11.4.2. Gender policy

The Government of Senegal has prioritized the empowerment of women in the Emerging Senegal Plan (PSE) by 2035, the country's new strategic development framework. Achieving this priority requires strengthening women's leadership and entrepreneurial capacities through the implementation of national programmes led by the Ministry of Women. They contribute to the establishment of favourable frameworks for creating wealth for women and girls and its includes: the setting up of businesses in the production and service sector, the allocation of financing for activities carried out by women, capacity building in business management, literacy and others. From the National Women's Action Plan (NWAP) to the National Strategy for Gender Equality and Equity (NSGEE), priority actions on women have focused on: economic promotion, social positioning, the impact of interventions in favour of gender equality and equity, political leadership. In the area of employment, the women-men ratio in labor market participation was 75% in 2015 according to the World Bank, compared to an average of 84.3% in 2012 in sub-Saharan Africa. The World Bank also reports that 67% of women aged between 15 and 64 are active in economy compared to 90% of men, although other documents show 33.3% for women compared to 69% for men; while unemployment affects 40.4% of women and 18% of men. This difference also affects the wages because women remain underpaid compared to men, the World Bank estimated the difference in 2015 to 59%. Due to the large disparities, 83% of working women are in the informal sector and self-employment.

In spite of the adoption of the law establishing parity in elective assemblies in 2010 and the important institutional adaptations among which the creation at that time of a ministry specially devoted to gender; the policies governing women and gender issues have not so far been able to bridge the disparity gap. It is the National Strategy on Equity and Gender Equality (NSGEE) that governs the gender policy of the Senegal Government and serves as a framework for implementation. The operational plan is expected to take into account priorities such as: the lack of equitable access to basic social services (health, education), weak economic power and low financial capacity of women as well as decision making in and outside the household, however, there is still a long way to go.

11.4.3. Energy policy and situation

From importing oil products, Senegal will, in the coming years, become an oil producer with the discovery and timid start of the exploitation of oil and gas resources. The country's energy strategy is governed by the Energy Sector Development Policy Paper (ESDPP), which focuses on a number of objectives. The program, adopted in

⁸⁰ Statistics South Africa. (2012). Gender Statistics in South Africa. Pretoria: Statistics South Africa

⁸¹ World Bank, World Development Report 2015" - Abstract: Thought, Society and Behavior, Washington. World Bank, 2015. License: Creative Commons Attribution CC BY 3.0 IGO

October 2012 and covering the period 2013-2017, aims at: energy security and access to energy for all; mix energy for better exploiting all possibilities; energy management and energy efficiency; the continuation and acceleration of liberalization and institutional reform of the sector as well as regulatory frameworks; competitiveness for making energy available at the best prices, and finally strengthening the regulation of the sector.

More specifically, in terms of access to energy, the government has set universal access to electricity at 100% coverage and the connection to the grid of at least 90% of rural households by 2025. The intermediate targets are respectively 60% in rural areas and 95% in urban areas by the end of 2017. Despite the efforts made to access electricity, there is still a large gap between urban and rural populations if one refers to electrification rates of 54.5% at the national level, 90% in urban areas, and 25.7% in rural areas. The main blocking factor remains the high price of kWh, sometimes characterized by enormous differences between urban and rural areas. The Ministry of Energy and the CRSE carried out a study on the harmonization of tariffs presented in July 2016. Then the President of the Republic subsequently announced a reduction of 10% on the electricity price from the first two months of 2017 for households and businesses. This reduction is applied by the National Electricity Company of Senegal (SENELEC) to its subscribers on the basis of a new rate grid including a reduction of 15% for customers of the "social wage" whose consumption is less than 150 kilowatt hours. The reduction is 11% for customers in the second tranche whose consumption is between 150 and 250 kilowatt hours. Clients in the third tranche that have a higher consumption benefit from a decrease of 4%. Moreover, from 2005 onwards, Senegal implemented the prepayment meter system, which is now adopted by many companies, which will benefit from the reduction in tariffs in all consumption categories without distinction.

In addition to the scope of hydrocarbon imports, the country's energy situation is marked by the predominance of the use of traditional fuels, coal and fuelwood, whose consumption increases with the growth of the population. The final consumption of wood and charcoal is between 40 and 55% and is more than 75% of household energy consumption for cooking. A projection estimates that demand for cooking fuels will increase by about 111% by 2030, representing an increase of more than 4.5% per year. However, the situation in Senegal seems better than in other West African countries where final consumption per capita is 73% in Togo and 88% in Niger in comparison with gas and oil products consumption estimated in Senegal at 44%, 23% in Togo and 9% in Niger. However, much remains to be done to diversify sources and transition to clean energy in the energy mix characterized by: the predominance of wood and charcoal, the high dependence on oil products and the very low proportion of renewable energy except hydroelectricity.

Fuels	Users	Dakar	Regional Capitals	Rural areas
LPG	%Users	97%	71%	25%
	% Principal	86%	28%	4%
	% secondary	10%	32%	15%
Charcoal	% Users	97%	84%	61%
	% Principal	12%	36%	11%
	% secondary	84%	41%	31%
Fire Wood	% Users	9%	47%	84%
	% Principal	1%	33%	81%
	% secondary	2%	6%	6%

Table 10.6: Fuels available in specific residential areas – Source: SE4ALL Senegal Agenda

11.4.4. Economic Policy

It is in the "Plan Sénégal Emergent" (PSE) paper that the Government has declined its new vision of development by 2035. The Priority Action Plan 2014-2018 serves as a reference document for interventions by the State and its partners. It broadly integrates the economic vision of government through three strategic axes. The first of these axes concerns the structural transformation of the economy and growth. It is expected that 60.98% of investments should be programmed during the period 2015-2017 for the development of various sectors

including infrastructure, transport and energy services, agriculture and agribusiness, social housing, industrial development, etc. The implementation of the PSE will accelerate public investment, and this could disrupt the country's fiscal management. The launch of the PSE coincided with a decrease in oil prices, it is an advantage for the launch of the plan, but an unexpected reversal of the trend could also be a setback. In 2013, the growth rate was expected to be 4%, compared with 3.5% the previous year, which, according to the Minister of Finance, suggests that the structural transformation of the economy is slow to achieve the expectations of the PSE. The Senegalese economy is dominated by the informal sector. The World Bank reports that it is a sector that generates 97% of jobs, 60% of the GDP and employs more than 80% of the active population. According to data from the National Statistical Agency mentioned by the World Bank, the poverty rate has reached 46.7%, which is relatively high while the incidence of poverty has decreased only by 1, 8% between 2006 and 2011. The Gender Inequality Index of Senegal was 0.5282 in 2014, and this places the country in 118th rank. Gender and economic growth are linked in a study designed to analyse the effects of public policies, including interventions for women, on economic growth according to Agenor's theories (2012 - 2014) based on a model that takes into account such indicators as:

- women's time between the labor market, household chores and the education of children;
- the capacity to negotiate between spouses;
- the allocation of mother's time between girls and boys;
- the improvement of access to infrastructure, health and education, and reduction gender bias.

According to the study, policies for growth combined with policies for women advancement – minimization of labor market discrimination, reduction of gender bias between boys and girls - could boost the growth rate by 2.7% in the long term. On the other hand, the "gender gap" is used as an indicator in the workplace with the use of the performance of productivity between men and women, which causes employers to pay higher wages to men than to women (ratio of human capital).

Economic policy in Senegal has not yet addressed the relationship between gender and energy, which could provide a good basis for policy analysis. However, the study provides interesting information. In its conclusion, the study notes that "the decrease in the time devoted to household chores was in favour of a greater participation of women in the labor market which increased by 1.22%. If changes in time spent on household chores, children and the labor market and the ratio of the public-private capital are the same, the increase of the growth rate of the output was different.... Globally, analyses show that more gender-sensitive public policies are potentially more beneficial to economic growth and thus substantially improve the participation of women in the labor market in Senegal".

11.4.5. Place of research at country level

The research complements studies carried out in the informal food sector on aspects related to its organizational and structural dimensions. Interest in fuels and technologies used adds another dimension to the analysis, notably the collection of qualitative and quantitative data to provide information on the energy situation in food preparation and sale activities in the streets. The research focuses on those aspects because there is a lack of data and information on them.

Research is carried out on two dimensions. First, the collection of data which have not yet been subject to a particular attention by the national statistical services. Indeed, there have been no directed surveys on food preparation in informal enterprises and second on the uses of energy and technologies. The research is therefore more specific, and this gives it an innovative character in the way to inform about several aspects at the same time. Energy policy, for example, does not go into the details of the energy needs in the informal sector, therefore women working in street catering do not find the expected answers.

On the other hand, the scarcity of disaggregated data on gender was identified as a constraint to mainstreaming gender in the National Strategy for Gender Equality and Equity (SNEEG). So there are answers that research can provide at this level, especially since the National Agency for Statistics (ANSD) has given recommendations for

the second phase of the survey⁸². This will involve broadening the sampling in order to have a greater diversity that can enhance the data.

11.4.6. Place of research at the regional level

In all the West African sub-region countries, informal food selling remains mainly a female activity, despite the involvement of men. In Dakar, they represent more than 80% and as much in the other big cities of the country and the ECOWAS region. Research can be very interesting because of its innovative nature. As a matter of fact, studies and research conducted on the informal food sector in West Africa can be substantially identical at the national level since energy and cooking technologies have not been exhaustively addressed or not addressed at all. Prepared food, customers, and organizational aspects are the focus of the research.

11.4.7. Conclusion

These Country Case Studies have drawn on important features of energy and gender policies in Rwanda, Senegal and South Africa. We have learned that in Rwanda the government has showed great commitment to gender equality not only in politics but and other strands of the society. Having a Gender Monitoring Office has helped the government to achieve some of its goals concerning paying attention to gender issues. On the other hand, Rwanda's ambitious development plans have propelled the government to make plans for energy provision which is important for business development. Although the informal sector is not encouraged in Rwanda, it does remain an important part of the economy which the government recognises as needing help in order to prosper and ultimately formalise. This also means funds targeted to formalising the IFS may also reach men and women equally if they are keen on formalising their enterprises.

In South Africa and Senegal, it is also clear that to some extent, the economy depends on the informal sector and that indeed, the Street Food Sector, particularly the informal and semi-formal enterprises, is dominated by women. Energy plays an important role in this sector and many of these enterprises rely on traditional sources of energy for various reasons, including the inability to afford modern energy services and the preference of a traditional energy source due to the product they are selling.

In all three countries we can see that striving for gender equality is important and that there already exist efforts to ensure that gender goals are achieved. At the same time, it is equally important to ensure that these countries and their policy processes see the significant link between gender and energy in the Informal Food Sector

⁸² Agence Nationale de la Statistique et de la Démographie (ANSD) 2016, Sénégal : Enquête Démographique et de Santé Continue (EDS-Continue) 2015.

11.5. SENEGAL National level indicators

	indicator/issue	Metric	Comment
General Indicators			
	population size	15,850.57	Year 2017. World Bank Data: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=VN-SN
	urban/rural population	44% / 56%	Year 2017. World Bank Data: https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=RW
	GDP	16,374 billion (current USD).	Year 2017. World Bank Data: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=SN
gender			
	HDI	0,470	Year 2015. http://hdr.undp.org/en/countries/profiles/RWA#
	GINI	40.3	Year 2011. https://data.worldbank.org/indicator/SL.POV.GINI?locations=SN
	life expectancy male/female	65 (males)/69 (females)	Year 2016. https://data.worldbank.org/indicator/SP.DYN.LE00.MA.IN?locations=SN https://data.worldbank.org/indicator/SP.DYN.LE00.FE.IN?locations=SN
	literacy male/female	The results of the RGPHAE reveal that nearly one in two Senegalese aged at least ten years (45.4%) can read and write in any language (53.7% for men /37.7% for women).	ANSD 2013 http://www.ansd.sn/ressources/RGPHAE-2013/ressources/doc/pdf/3.pdf
	ownership of telephones male/female	Mobile telephony: 15 million subscriptions registered in Senegal in 2017	March 2018 OSIRIS http://www.osiris.sn/Telephonie-mobile-15-millions-d.html

Ease of access to credit/bank services	142 ^{eme.} Rank DB 2018 Getting Credit: Senegal improved access to credit information by establishing a new credit bureau. “Doing Business reform making it easier to do business”	2017. World Bank data: http://www.doingbusiness.org/data/explore/economies/senegal#getting-credit	
land ownership female/male	Men control 93.6% of the cultivated area and average 1.3 ha, compared to 6.4% for women who use 0.4 ha. According to ANSD, only 13.8% of women currently own their land, compared to 13.4% in 1999. This represents a marginal development	May 2017 National-Assessment-on-Gender-and-STI-Senegal-FRENCH http://wisat.org/wp-content/uploads/National-Assessment-on-Gender-and-STI-Senegal-FRENCH.pdf	

Electricity Access

Series	
Access to electricity (% of population)	5
Urban (% of urban population)	9
Rural (% of rural population)	2
Access to clean fuels and technologies for cooking (% of population)	3
Renewable energy consumption (% of total final energy consumption)	5
Renewable electricity output (% of total electricity output)	1
Electric power consumption (kWh per capita)	

Source : <https://www.se4all-africa.org/seforall-in-africa/country-data/senegal/>

Energy public policies

- ☑ The Emerging Senegal Plan 2035 (PSE), a long-term strategic document, aims to guarantee wide and reliable access to cheap energy.
- ☑ Energy Sector Development Policy Letter (2018-2022)
- General goals:** to ensure the country's access to quality energy, sustainable and at a lower cost.
- Specific goals:**
 - ensure and secure the country's energy production and supply in sufficient quantities and at a lower cost;
 - strengthen access to electricity with quality and continuity of service at a lower cost and in a sustainable way;
 - strengthen people's access to energy services and domestic fuels;
 - strengthen the steering, regulation and monitoring-evaluation of the sector.

Energy Efficiency Goals:

Actions in favour of the promotion of the energy control and the energy efficiency are declined in two (2) major axes. These are

- (i) the reduction of 10 to 20% of the public electricity bill in 2015
- (ii) make a 40% economic on the electricity demand of the country in 2020, especially with the diffusion of 3 million energy-saving lamps in the residential, tertiary and industry.

Efforts to develop a national awareness of energy efficiency and control concerned communication and awareness actions. As such, a communication strategy has been implemented to contribute to the generalization of energy saving practices.

Renewable energy share targets in total energy production:

In the 2013-2017 LPDSE, the Government set the Renewable Energy Guidelines in order to reach a non-biomass commercial energy independence rate in 2025 of at least 15%. The Renewable Energies integration study in the interconnected network was carried out in September 2015 and concluded that the system could accept medium-term (2015) up to 20% of renewable energies. However, it would be necessary to set up a sufficient and well-distributed rotating reserve in order to offset the intermittences of renewable energies (solar and wind). Beyond 2035, studies will have to be updated taking into account the development of the park and the networks. As such, and in order to achieve a non-biomass energy independence rate, four (4) IPP PV solar power plants were commissioned and integrated into the Interconnected Grid for a total capacity of 100 MWp. Two (2) others are in progress for coupling in 2018. The development phase for the construction of a 150 MW wind power plant has been finalized and work is underway. In addition, the Electricity Sector Control Committee, with the support of IFC, has launched a call for tenders for the construction of two (2) 50 MWp private solar power plants. The counting is in progress. Source LPSDE Report 2018 -2022.

Gender and Energy

Senegal has several texts for the integration of gender in public policies. However, their implementation is problematic because of the lack of resources that the State devotes to them: Existence of a National Strategy for Equity and Gender Equality (SNEEG).

Existence of legal texts

- the law of 28 May 2010, which establishes absolute parity in elective and semi-elective bodies on all electoral lists,
- the law n ° 03/2013 of June 28, 2013 which allows the woman to transmit her nationality to her husband.

Existence of a gender mainstreaming guide in Sector Policy Letters (LPS)

Existence of a gender focal point in the Ministry of Energy

Inclusion of gender in the new letter of Energy Sector Development Policy (LPDSE) 2018-2022)

Access to electricity for women

The lack of access to basic services such as energy and water strike women's time budget. The unavailability of roads affects their access to the market. Nearly eight (8) out of ten households use a modern energy source to light up (57.5% for electricity and 20.4% for the rechargeable lamp).

Main sources of energy for cooking

Final consumption of the household sector by product

"The main sources of household energy in 2012 are fuelwood (60%) and charcoal (26.9%), which alone account for about 87% of total household energy consumption. These two products are often used for cooking purposes such as LPG or butane gas (7.1%). The share of

electricity, in this domestic energy consumption, is around 5.7% in 2012. The kerosene which represents 0.2%, is used mainly for the lighting in peri-urban and rural environment. " Source: SIE-Senegal 2013

The promotion of Domestic Fuels

It is the flagship action for the achievement of the objective of "ensuring in a sustainable manner the supply of cooking energy to households by ensuring the preservation of forest resources. This objective is implemented by three (3) programs. These are PROGEDE II, Endev / PED and the National Biogas-SN Program.

Perspectives of Gender Integration in Public Policies

In Senegal, the development of the new strategic note 2018-2020 will coincide with the development of the new Common Country Assessment (CCA) and UNDAF 2019-2022 with a view to achieving Delivering As One (DAO). Also, within the framework of the Joint Annual Review (ACR), the Government of Senegal has planned to carry out a gender thematic review to measure the level of gender mainstreaming in public policies (Situation Analysis Report). gender equality in Senegal, UN Women 2018)

11.6. SOUTH AFRICA National Level Indicators

indicator/issue	Metric	comment
General indicators		
population size	56,717,156	Year 2017. World Bank Data: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=ZA
urban/rural population	37,509,476 (65.8%)/19,407,476(34.2%)	Year 2017. World Bank Data: https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=ZA
GDP	349.419 billion (current USD).	Year 2017. World Bank Data: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=ZA
Gender related indicators		
HDI		
GINI		
life expectancy male/female	59.2 (males)/66.4 (females)	Year 2014 https://data.worldbank.org/indicator/SP.DYN.LEO0.FE.IN?locations=ZA
literacy male/female		
ownership of telephones male/female	82,412,880	Year 2016. World Bank Data: https://data.worldbank.org/indicator/IT.CEL.SETS?end=2016&locations=ZA&start=1960&view=chart&year_high_desc=true
Ease of access to credit/bank services	68th position overall in the sub-section "getting credit" in the ranking "Ease of doing business"	2017. World Bank data: http://www.doingbusiness.org/data/exploreeconomies/south-africa

indicator/issue	Metric	comment
land ownership female/male		
quote and reference to key gender objectives in key energy policy documents		
energy access/access to energy services		
access to electricity		
access to clean cooking		
hh connection % male/female hh hh		
ownership of telephones/mobile phone coverage		
traditional sold biomass /total energy consumption		

11.7. RWANDA National Level Indicators

indicator/issue	Metric	Comment
General indicators		
population size	12,208,407	Year 2017. World Bank Data: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=RW
urban/rural population	3,747,981 (30.7%)/8,460,426(69.3%)	Year 2017. World Bank Data: https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=RW
GDP	9,137 billion (current USD).	Year 2017. World Bank Data: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=RW
Gender related indicators		
HDI	0,491 (females); 0,495 (males)	Year 2015. http://hdr.undp.org/en/countries/profiles/RWA#
GINI	50,4	Year 2013. https://data.worldbank.org/indicator/SI.POV.GINI?locations=RW
life expectancy male/female	64,9 (males)/69,2 (females)	Year 2016. https://data.worldbank.org/indicator/SP.DYN.LE00.FE.IN?locations=RW
literacy male/female	97,3% (males)/98,0% (females)	Primary, net, year 2016. Ministry of Education http://mineduc.gov.rw/fileadmin/user_upload/pdf_files/2016_Education_Statistical_Yearbook.pdf

indicator/issue	Metric	Comment
ownership of telephones male/female	9,321,347	July 2018. Mobile telephone subscriptions. http://www.rura.rw/index.php?id=60
Ease of access to credit/bank services	6th position overall in the sub-section "getting credit" in the ranking "Ease of doing business"	2017. World Bank data: http://www.doingbusiness.org/data/exploreeconomic/rwanda#getting-credit
land ownership female/male		
quote and reference to key gender objectives in key energy policy documents		
GOALS IN GENDER POLICY:		
<ul style="list-style-type: none"> - Mainstream gender and family in planning, budgeting and in all development programmes/projects at national and local levels - Sector strategies and district plans will focus on interventions that reduce poverty levels among men and women - Reduce gender-based violence, malnutrition and other related conflicts at both family and community level - Focus on sector strategies that enable women and men to participate, access, control and benefit equally from growth processes in a way that recognises their different needs 		
KEY POLICY DOCUMENTS, LAWS AND INITIATIVES IN GENDER POLICY:		
<ul style="list-style-type: none"> - Economic Development and Poverty Reduction Strategy II, 2013-2018 - National Gender Policy, 2010 - Gender Based Violence (GBV) law, 2008 - Girinka Programme, 2006-2015 - Gender Responsive Budget Initiative, 2008 		
LINKAGES GENDER-ENERGY		
<ul style="list-style-type: none"> - Facts (National Energy Gender Policy, 2010) <ul style="list-style-type: none"> • "Access to energy is a serious issue for both men and women; however the latter are more concerned as they are the majority involved in seeking firewood for cooking and other related domestic activities. This affects the time that women could use for other activities for the development of their own families and communities." • Limited source of energy affects more women than men as women are more involved in household activities requiring use of energy; - Actions (National Energy Gender Policy, 2010) <ul style="list-style-type: none"> • To facilitate rural transport used in different localities, especially by women, and institute appropriate intervention measures to facilitate access to energy to reduce the household energy burden on women; • To sensitise the populations on the increase of men's participation in firewood collection and other sources of domestic energy management; • To ensure that women and men are involved in the development of renewable sources of energy. • To ensure that rural households are trained in the use of energy saving stoves and are facilitated in accessing them; 		
To ensure that the number of households dependent on firewood and charcoal is reduced		
energy access/access to energy services		
access to electricity	Tier 0: 73,2% Tier 1: 2,8% Tier 2: 2,1% Tier 3: 10,3% Tier 4: 7,8%	2017. MTF Report https://energydata.info/dataset/rwanda---multi-tierframework--mtf--survey--2018-/resource/547d1558-0109-4b9c-a487-a3a4a5effd2f

indicator/issue	Metric	Comment
	Tier 5: 3,7%	
access to clean cooking	33% of population	2017. MTF Report https://energydata.info/dataset/rwanda---multi-tier-framework--mtf--survey--2018-/resource/547d1558-0109-4b9c-a487-a3a4a5effd2f
hh connection % male/female hh hh	Tbd	
ownership of telephones/mobile phone coverage	Tbd	
traditional sold biomass /total energy consumption	85%	https://energypedia.info/wiki/Rwanda_Energy_Situation
reference to key energy policy documents including targets on electrification and clean energy, subsidy		
Action Agenda SE4ALL, draft, 2015:		
Sector	Target	
Access to clean and sustainable cooking	<ol style="list-style-type: none"> 1. To close the gap (currently about 20%) between production and consumption of biomass to make it a sustainable source of energy 2. To supply a growing and urbanising population with clean secure supplies of biomass for cooking, requiring: <ol style="list-style-type: none"> a. 100% access to much more efficient cookstoves than currently used b. Reduction in losses from charcoal by improving charcoal production and partially replacing charcoal with biomass pellets c. Increasing production by improving forestry management 3. To ensure that the efficient cookstove solutions noted above address health issues by significantly reducing indoor air pollution 	
Access to electricity	<ol style="list-style-type: none"> 1. To achieve 100% electricity access by 2030 in both urban and rural areas through a mix of on-grid and off-grid solutions 2. Progress to higher quality and quantity of electricity over time, with >50% of the population having tier 3-5 access by 2030. 	
Renewables	<ol style="list-style-type: none"> 1. Exceed the global SE4All target (26%) of renewable energy as a percentage of the primary energy supply 2. Exceed the global SE4All target (44%) of renewable electricity generation as a percentage of total electricity generation 	
Energy efficiency	<ol style="list-style-type: none"> 1. At least double the efficiency of biomass energy use 2. Extend current rates of electrical efficiency improvement to 2030 	
reference to key evidence/large studies on energy and/or gender for the country (recent - data collected 2014 or later)		
<ul style="list-style-type: none"> • Situation Analysis of Gender and Sustainable Energy in the East African Community, 2018: https://cdn2.b2match.io/event/2901/assets/8478585390-c9af64a444.pdf 		
Gender and infrastructure, Republic of Rwanda, 2017: http://www.gmo.gov.rw/fileadmin/user_upload/profiles/Gender_in_Infrastructure_Booklet_GMO_March_2017.pdf		

11.8. Workshop Proceedings:

11.8.1. 2016 Workshop in Kigali, Rwanda

The workshop in Kigali, Rwanda, was held on November 11th, 2016, following the scoping phase **Invalid source specified**. The meeting started with a firm statement from the Rwanda Energy Group (REG) representative, the national utility officially supervising the ENERGIA-RA2 programme in Rwanda, about how the informal food businesses have to be considered illegal and should not be supported by any means. Many previously informal food businesses have already been transformed by local governments into small-scale, semi-formal activities. A successful example, as REG indicated, are goat skewer sellers. These are highly appreciated among the population and there is quite a large market for it across the country. In Kigali, these street sellers use to be scattered throughout the city, concentrating mainly in heavily frequented areas. In 2015, however, the local government vacated a location near a market where they could legally operate, and since then they do. Currently, they are all registered, pay fees and taxes, and have thus been formalised.

In general terms, the audience of the workshop proved to be sceptical about the topic of the research, being perceived as an incentive to perpetuating the informal economy rather than discouraging it. As a consequence, a major shift of the research scope to address and investigate exclusively the formal businesses was requested. However, this was not possible as the research took place simultaneously in the 3 countries. The gender policies in place were also considered satisfactory by the audience, and there was no vested interest to know more about how gender affected the street food sector. Lastly, the REG participants recommended for the second phase to focus more on street food businesses in the newly electrified areas and assess whether and how access to electricity has altered the energy mix in the food sector, in order to inform REG for future electrification strategies.

11.8.2. 2018 Workshop in Dakar, Senegal

The workshop in Dakar, Senegal, was held on May, 15th 2018. The participants showed a high degree of awareness and understanding regarding actual trends in mainstreaming gender in energy policies, and how productive uses of energy in the food sector, predominantly dominated by women, represent a relevant component of these efforts. To illustrate this, the Ministry of Oil and Energy, represented by Mrs. Fatou Thiam Sow, recalled that the Energy Sector Development Policy Paper (LPDSE) 2018-2022 gives prominence to the gender issues **Invalid source specified**.

The main findings of the surveys presented during the workshop showed that both men and women use different energy sources in the sector, and that the food business is highly dominated by informal practices, yet, there's little understanding of such dynamics, despite the importance of the street food sector for both the entrepreneurs, mostly women, and the urban poor, who find in the SFS an affordable source of food.

The exchange among the participants during the workshop highlighted the relevance of the health and safety dimension in the context of gender and productive uses of energy, and how the feminisation of poverty is not only rural, but also urban and peri-urban. Some financing organisations exist in the country to fight against the status of women in situations of economic vulnerability, but there's need for more information to better understand dynamics such as the energy transition that would help women to exit their status of poverty and improve their health and safety conditions.

Despite the common agreement that good energy and gender policies are in place, participants highlighted some shortcomings of the current strategies, mostly due to insufficient attention to the street food sector in local planning, low consideration of cooking energy in the gender policies, lack of coordination among key stakeholders and insufficient availability reliable data. Blocking factors to further development of the sector refer also to lack of access to credit for informal businesses, lack of synergy of intervention among stakeholders, lack

of skills among players and beneficiaries, namely the women in the SFS, ignorance about the potential of modern energy sources that can improve the businesses, and a strong reluctance to formalise activities.

All participants agree on the need of better defining the implementation strategies of the current policies, and to designing a series of incentives towards increasing formalisation of the sector. In relation to the gender dimension, additional efforts should be put on monitoring, to assess impacts and potential for improvement over the medium-term, following immediate actions by all the organisations active in the sector. To fulfil this purpose, a clear reference situation and performance indicators need to be promoted, and the exchange of good practices must be supported.

A good summary of the findings resulting from the workshop was given by one of the participants: “The legal and regulatory framework in force in Senegal is favourable. The challenge is implementation through innovative initiatives that are part of sustainability”.

Increasing exchange and management of information among the stakeholders is key to success. To achieve this, information should be created in the first place, and clear roles and responsibilities should be allocated for its management and sharing.

At the end, the participants also proposed some recommendations, such as: increasing attention to energy efficiency, to reduce energy consumption and energy costs (an important aspect for informal businesses); more information should be created, and made public, regarding the linkages between energy and informal food sector and the profiling of typical beneficiaries; training beneficiaries and building up incentives to support the formalisation of enterprises (especially those run by women); development of food safety and hygiene policies to convince entrepreneurs to formalise their businesses towards increasing quality; and developing energy-related financing mechanisms. At a more general level, the accessibility and availability of alternative cooking energy sources – such as LPG – should improve, and the price of electricity should be reduced.

11.8.3. 2018 Workshop in Durban, South Africa

The workshop in Durban, South Africa, took place on April 18th, 2018. One of the panellist opened up by stating that gender in the street food sector presents an access issue as women struggle to access finance, often due to lack of financial skills, a complex legal and regulatory environment, and lack of trust of main financing channels regarding women-run businesses. Hence women make up most of the world’s poor, with only limited opportunities for professional and personal development. Therefore, policy efforts to alleviate poverty focus should focus more on women’s needs and empower them, also given their key role in the society. It is without a doubt that economically empowered women contribute more to their families, societies and national economies. The panellist also raised up other challenges faced by women in South Africa, such as: limited business experience and skills; low level of education, sometimes because of cultural constraints; difficult in accessing finances; discriminatory cultural and gender norms that limit growth of business; and unstable socio-economic backgrounds in their families. According to the panellist, energy subsidies in the sector could play an important role in empowering those who are operating in the sector, and especially women.

Another presenter stressed how many women in the informal food sector are breadwinners; therefore, government should direct more efforts on improving women’s conditions and opportunities by allowing them access to a range of energy services suitable for their enterprises, which could then also be used at home. This would alleviate restrictions on growth, increase sustainability and allow them to have control over enterprise operations.

The third panellist discussed the differences between survivalists and growth-oriented businesses, based on the available literature in the sector. He pointed out that, contrary to common understanding, such difference does not seem to be so clear from the surveys: all businesses, including the small informal ones, show a strong ambition to grow, with limited to no difference between men and women. According to him, the lack of major differences in energy use between men and women in our sample, may indicate the reality in the Street Food Sector and should not be ignored. This statement partially contradicts the findings from other researchers, whose policy advice includes being more gendered.

Some key barriers in the sector were then discussed, mainly consisting of a lack of financing, space and strict regulation. Another interesting aspect is the interdiction to use certain energy sources in some areas, forcing the entrepreneurs either to stick to the allowed energy sources with limited opportunity for change, or to prepare and cook the food somewhere else, usually with traditional energy sources.

The director and founding member of a local organisation with more than 20 years of experience working alongside traders in Warwick Junction in Durban, argued that “the method of producing policy has to have a process of engagement and a project of activity which leads through lesson learnt, yielding an end product of having a legitimate policy”, which is not always the case.

Some policy recommendations spurring from the dialogue included: need for provision of basic services, through subsidies and allocation of lucrative locations; access to finance for informal businesses and supportive tax system; need for regulation with simple procedures; better spatial planning to support informal businesses; health and safety regulation to be developed further as entry point for further formalisation, as the benefits can be seen and appreciated by tax or permit payers in the very short term.

ANNEX 3 : QUESTIONNAIRES

Separate documents

ANNEX 4 : ASPIRATIONS TO GROW

This paper was submitted to the Small Business Economics Journal on 13-11-2018 for consideration for publication.

ASPIRATIONS TO GROW: WHEN MICRO- AND INFORMAL ENTERPRISES IN THE STREET FOOD SECTOR SPEAK FOR THEMSELVES

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ABSTRACT

The street food sector in Sub-Saharan Africa is a source of affordable and nutritious meals for the urban poor, while also being an important source of income for the women who dominate this sector. Despite the importance of this sector, many micro- and informal enterprises are labelled as “survivalist”, beyond the reach of common development policies which give priority to so-called growth-oriented enterprises. When given the chance to speak for themselves, do enterprises express any aspirations to grow? Contrary to the literature, our findings show that necessity-driven enterprises do aspire to grow, and that this is true for both those owned by men and women. Using Contextual Interaction Theory (CIT), we explain why it is possible for previous authors to come to such a different conclusion.

ASPIRATIONS TO GROW: WHEN MICRO- AND INFORMAL ENTERPRISES IN THE STREET FOOD SECTOR SPEAK FOR THEMSELVES

INTRODUCTION

At most busy intersections, transport nodes and market places in African cities and urban centres, there are informal enterprises selling cooked meals and food. Flavours vary among cities and markets, with products ranging from traditional meals and beverages to fast food items, milled grains, sandwiches, pastries, and boiled eggs. The street food sector in Sub-Saharan Africa is a source of affordable and nutritious meals for the urban poor (Lues et al. 2006; Namugumya and Muyanja 2012; Ohiokpehai 2003; Steyn et al. 2014), while also being an important source of income for the women who dominate this sector (Graffham, Zulu, & Chibanda, 2005; Nackerdien & Yu, 2017).

Globally, more than 60% of employed men and women earn their livelihoods in the informal economy (“Women and Men in the Informal Economy: A Statistical Picture” 2018). In Dakar, Senegal, 89% of employed women compared to 70% of employed men are employed in the informal non-farm sector (Herrera et al. 2012). In Nigeria, despite significant formal economic growth, “the informal sector continues to be the greatest creator of jobs for women” (Ola-David and Oyelaran-Oyeyinka 2014, 20). These incomes contribute to food, shelter and children’s education, and play a key role as food-energy support instruments in urban landscapes (Acho-Chi, 2002; Alves da Silva et al., 2014; Fasoyiro, 2011).

Despite the importance of this sector, many micro- and informal enterprises in the street food sector are labelled as “survivalist”, beyond the reach of common development policies which give priority to so-called growth-oriented enterprises (Berner et al. 2012; Skinner and Haysom 2016). In this paper we present the findings from our study in three African countries, namely Rwanda, Senegal and South Africa. When given the chance to speak for themselves, do enterprises in the street food sector express any aspirations to grow? The leading question of

this paper is: *“To what extent can a division between survivalist and growth-oriented entrepreneurial logics be demonstrated in the case of the street food sector in three African countries and how do these logics relate to gender?”*

The following section will begin with a brief review of prescribed entrepreneurial logics in the literature and how the category of survivalist can be discriminatory, especially for women. In section 3, we will present the empirical findings from both the scoping phase and the main survey of our study, supported by the findings from in-depth interviews. This is followed by a brief discussion in section 4, and conclusions and policy implications in section 5.

THE DEBATE IN LITERATURE

Survivalist versus growth oriented entrepreneurs: why are so many women “survivalists”?

Some researchers focus on different entrepreneurial logics to determine an informal entrepreneur’s potential for growing their enterprise (Berner, Gomez, & Knorrinda, 2012; Friedmann & Sullivan, 1974; Gomez (2008), House, 1984). Berner et al. (2012) and Gomez (2008), for example, explore the logics followed by entrepreneurs and claim a fundamental and qualitative difference between survival and growth-oriented enterprises. Based on the reason for entering the sector or starting the business, survival-oriented enterprises are described by (author?) as necessity driven, while growth-oriented enterprises are opportunity driven (Cheung 2014; Hernandez, Nunn, and Warnecke 2012; Langowitz and Minniti 2007; Preisendörfer, Bitz, and Bezuidenhout 2012). These authors determine which category an enterprise fits into based solely on the reason given at interview for entering the sector or starting the business. This assumes that the entrepreneur does not evolve over time or specialise in their services or products taking advantage of market opportunities.

Berner et al. (2012) stress that the categories of survivalist versus growth oriented entrepreneurs are not stages on a growth trajectory; they argue, based on empirical evidence collected in x countries that survivalist enterprises are not likely to “graduate” to growth-oriented enterprises and don’t represent a natural business growth path. In contrast, other authors do view the categories of survivalist and growth-oriented entrepreneurs on a continuum (Ramani et al. 2013). The literature also finds that women tend to dominate the survival category – driven by necessity, while there are more men in the growth category – driven by opportunities. Ramani et al. (2013, 6) state: “A majority of authors are of the view that, as opposed to men, women are above all engaged in the informal economy out of necessity rather than opportunism” (see also Hernandez et al., 2012; Minniti and Nardone, 2007). Similarly, Kabeer (2012) asks why women tend to dominate the survival end of the continuum, and what would it take for them to advance towards the growth-oriented part of the spectrum.

The informal economy’s ability to absorb semi-unskilled labour and the low barriers to entry are often cited as reasons for women’s high participation in the informal sector compared to the formal sector (Muzaffar, Huq, and Mallik 2009). Self-employment in the informal economy is also said to provide women with the independence and flexibility to balance domestic and business responsibilities (Dejene 2007; Kabeer 2012; Minniti and Nardone 2007). Xheneti et al. (2017, 3) endeavour “to explore why, beyond survivalist or limited choice factors, women entrepreneurs in developing countries choose to work and remain in the informal sector.” Of the 76 articles with empirical findings, they highlight three issues: the importance of context, intersectionality and positionality, and epistemic limitations.

Although the literature talks about the benefit of self-employment for women in this sector and women’s preferences to operate in this sector, this reason for starting a business is not considered as a separate category of entrepreneurial logic. These enterprises who derive benefits from self-employment are lumped into the category of survivalist, which supposes that they would leave their informal self-employment if alternative formal wage employment was accessible to them. However, the literature at present does not consider a third category of entrepreneurial logic, based on the desire for financial independence and the flexibility of self-employment. There are mixed findings in the literature relating to the value that informal workers themselves derive from their work. Temkin (2009), for example, found that informally self-employed respondents in Mexico tend to be poorer, older and less educated than those that are employed in the informal and formal sectors. They are also less satisfied with the economic situation of their household among other things. This leads Temkin to conclude that the nature of informal self-employment can in most cases be described as survivalist and not a reflection of

incipient entrepreneurship, individual choice or potential agents of economic growth. In contrast, Monteith and Giesbert (2017) found that informal workers in Uganda, Burkino Faso and Sri Lanka value a combination of instrumental features of work relating to income, survival and health, freedom and independence, trust and relationships at work, and social recognition and respect.

Survivalists discrimination

In the enterprise literature, absence of growth is often attributed to the fact that survival oriented businesses are generally not interested in expanding their business (Banerjee & Duflo, 2007; Berner et al., 2012; Gomez, 2008), and the specialisation and skills necessary to operate at a larger scale is not what the poor are looking for. Gomez (2008) found that *'the main reason why micro-enterprises never grow out of their size category is, plain and simple, that their owners do not pursue expansion'* (p. 10). However well-meant, the distinction between "survivalist" and "growth-oriented" mental logics, as put forward by these authors, could in a context of already existing prejudice against women turn into a situation in which gender discrimination is reinforced, for example by leading to the idea that these informal enterprises do not need support for their development since that is not what the people themselves want anyhow.

In a thematic review of literature on gender and entrepreneurship, de Groot et al. (2017) concluded that categorical definitions of survivalist versus growth oriented entrepreneurial logics are potentially damaging or misleading, and that assigning such entrepreneurial logics can discriminate against women who tend to dominate the category of survivalist entrepreneurs. In fact, common development policies and programmes as well as those specifically focusing on women's entrepreneurship in Africa tend to support growth-oriented enterprises while neglecting survivalist enterprises at the macro, meso and micro levels (Berner et al. 2012; Choto, Tengeh, and Iwu 2014; Dejene 2007; Skinner and Haysom 2016). Not only are so-called survivalist enterprises neglected, but at times they are also penalised through punitive policies and regulations, like municipal measures to "clean the streets" (such as the infamous "Operation Clean Sweep" by the City of Johannesburg in 2013). To illustrate, Skinner and Haysom (2016, p. 15) describe the South African policy environment for the informal food sector to be "at best, benignly neglectful and at worst, actively destructive".

Is there an issue here of the city authorities trying to deal with food hygiene and the public health issues of disease control? This might be isomorphic mimicry in that the authorities talk about hygiene but actually they are just hostile to the 'untidyness' of street food.

Dejene (2007) in her study assessing the promotion of women's economic and political empowerment in Africa, identifies the following gender differentiated constraints to women's micro- and small enterprise growth: labor burden, skills, access to financial resources, weak infrastructure, limited access to markets, weak business organisation, and limited enabling environment. Vossenburg (2013) adds that women's safety and gender based violence is another issue limiting women's access to markets and limited ability to enter profitable industries. For these reasons, women are over-represented in saturated markets, such as street food, that have few barriers to entry.

Regardless of entrepreneurial motivation, Langowitz and Minniti (2007) observe that subjective perceptions of their entrepreneurial environment influence whether men or women are likely to turn their ambitions into actual new businesses. For instance, they found that men and women perceived the entrepreneurial environment more favourably if they knew of other entrepreneurs and had positive perceptions of one's own skills and existing opportunities. It is therefore important to recognise how labels such as "survivalist" or "growth-oriented" impact directly or indirectly on men and women's perception of the entrepreneurial environment and therefore their potential to start new businesses or grow their existing business. It is also important to be aware of cultural contexts which impact the relationship between barriers (perceived or otherwise) and the entrepreneurial intentions of women and men in different countries (Shinnar et al., 2012).

Furthermore, the idea that only growth oriented enterprises are opportunity-driven and only survivalist enterprises are necessity-driven is questionable. In a study in which country of individuals who became new business owners over a 5 year period, the majority were found to be necessity –driven; starting a new business

in the face of unemployment (Cheung, 2014). If the majority of entrepreneurs are necessity-driven, then differentiating between the two categories based on their reason for entering the sector is meaningless or alternatively as Cheung (2014) concludes, the majority of entrepreneurs may not be able to contribute to economic growth. Similarly, Choto et al (2014) critiqued perceptions of “survivalist entrepreneurs” in the academic literature as the authors found in their study that “ninety percent of the survivalist entrepreneurs that enrolled in incubator programs did so because of their aspiration to grow” (p.99).

Potential for inclusive growth and “graduating”.

The priority given to growth-oriented enterprises stems from the idea that growth-oriented enterprises are opportunity driven and thus more likely to create new growth from new opportunities they find in the economy. Necessity driven entrepreneurs as commonly found in the informal sector are believed to have less potential for growth, however Neves and du Toit (2012) explain that informal economic activity should not be measured in relation to the maximization of profit. Instead, enterprises are viewed in terms of the extent to which they balance up the multiple objectives of securing resource flows (fiscal and otherwise), making investments (material and social) and mitigating risk. This makes one wonder whether growth-orientation is the only economic attribute that policy and practice should focus on, or whether factors such as resilience, stability, and welfare, amongst other factors, should be considered?

Growth orientation is often associated with formality which is what is desired by most governments and regulatory authorities, hence the efforts to formalize informal enterprises. Because Berner et al. (2012) stress that the categories of survivalist versus growth oriented enterprises are categorically different entrepreneurial logics, with different measures of success; they argue that survivalist enterprises should benefit from promotional and protective policies as much as growth-oriented enterprises. In their opinion, enterprises should not be expected to “graduate” from survival to growth or from informal to formal. Unlike many development policies which promote formalisation of the informal and “graduating” survival enterprises to growth-oriented enterprises, Temkin (2009) and Berner et al. (2012) actually advocate that macroeconomic policies should focus on creating new formal employment opportunities to absorb the unemployed and those resorting to survivalist enterprises.

While the dualist notion of formal and informal economies is considered outdated (Skinner and Haysom 2016), development policies are persistent in the approach to formalise the informal, for which there is little empirical evidence to say whether formalisation actually benefits women engaged in informal enterprises (Xheneti, Madden, and Karki 2017). To illustrate, policies aimed at formalising growth-oriented enterprises for the benefit of security and access to finance in Cairo, were found to have a negative impact upon social networks and indigenous value systems (Elyachar 2010).

In this review we identified much literature on survivalist versus growth oriented enterprises and relatedly on formal and informal enterprises. Much of it is also linked to assumptions on gender. The literature predominantly tends to make rather hard division lines between survivalist, (mostly informal enterprises) and growth-oriented, (mostly formal enterprises) and sometimes links the former to female ownership. But are those assumptions and interpretations correct? There are others that cast some doubt on this. Thus we turn to our empirical data based on the entrepreneurs speaking for themselves for an answer to our research question: *“To what extent can a division between survivalist and growth-oriented entrepreneurial logics be demonstrated in the case of the street food sector in three African countries and how do these logics relate to gender?”* Of course we can only test this for our sample of microenterprises in the informal food sector in three African countries.

EMPIRICAL EVIDENCE

In the project, two rounds of survey and of qualitative data gathering have been conducted. In this paper we will concentrate on the results of the surveys, illustrated and clarified with data from the qualitative study. In the scoping phase 179 respondents were surveyed, including sellers and owners in the street food sector, divided over three African countries (62 South Africa, 61 in Senegal and 56 in Rwanda). In the main phase 751 enterprises were surveyed (271 in South Africa, 240 in Senegal and 240 in Rwanda). In the second round, qualitative data were also gathered in 105 in-depth interviews, approximately evenly spread over the three countries, and some

stakeholder meetings. In all data gathering there was no pre-selection of male or female workers as interviewees. Thus the proportions between females and males reflect the proportions found in the street food enterprises in the locations of our sample base in these countries. In the next subsection, we will first report on the empirical evidence from the scoping study, followed thereafter by that from the main survey.

Scoping survey results

In our scoping survey we asked the respondents that are also the owner of the enterprise whether they would like their business to grow. Respondents that are not owners are excluded from the sample. However, the respondents that are not owners are employed by an owner who was not interviewed. It is unlikely that they would be less likely to grow their enterprises than our respondents since they already took the important step of hiring people.

Given the nature of the informal food sector (microenterprises, low entry barriers, largely female) one might expect on the basis of the literature that the vast majority of the 109 owners that answered the question would be showing a “survivalist” logic and be negative or at least hesitant towards growth. However, the women and men in our sample themselves give quite different answers.

When asked the question: “Would you like to grow your business?”, just four people answered “no” (twice), “don’t know” and “not applicable to me”. All of the others said “yes”, hereby indicating a willingness to grow. Three of the four who gave negative responses, gave the following reasons why they do not want to grow their enterprise: “Because she finds it almost impossible.” “I can’t manage anymore because of my poor health.” and “I’m looking for something better to do.” Actually all three statements do not create a picture of lack of ambition at all but mention valid reasons that could be given by someone in the formal sector as well as to why they don’t want to grow their enterprise. Only two women and two men did ‘not really’ want to grow. Not only does this finding indicate a strong willingness to grow among respondents, in our sample it is also not true that women are less inclined to pursue growth than men!

Having analysed the four that do not clearly want to grow, it is important to learn about the reasons given by the vast majority which claim that they actually do want to grow. Is it just because they misunderstand the reality of enterprise growth according to economists? Could their statements still suggest that they should be classified as “survival oriented” micro entrepreneurs as several authors think?

Most of the pro-growth owner-respondents gave reasons behind their aspirations. The original question was: “Explain why do you (not) want to grow this enterprise”. While the noted statements on their motivations vary enormously, they do not convey the impression that the growth orientation of the women and men is just survivalist driven.

The statements on the reasons to want to grow, were coded on the dimension of their survivalist – growth orientation. A five-point coding scheme was derived from the variety of statements actually received rather than from a pre-conceived categorisation. The five values are consequently defined by the typical statements that are included under these scores, as shown below. However, some caution is warranted as some level of subjective interpretation is necessary by the researchers in terms of classifying the responses. When someone spontaneously stated “To fulfil my needs”, that sounds like a ‘survivalist’ reason to want to grow. Nevertheless, this can also be interpreted in terms of a desire to grow the enterprise. But what we actually do not know is whether those needs are modest or actually strive for real prosperity. On the other hand, when someone states “I want to expand, make fried potato chips, hot dogs, hire more people”, we do not know whether that is just a dream or a real goal. Nevertheless, we propose to take the statements seriously at face value, as they are the real stakeholders talking about their personal motivation, instead of outsiders just assuming what their motivations are.

We discerned five steps from survivalist growth to formal growth oriented. Each of them is named briefly and explained by typical motivation statements.

1 *Survivalist growth*: fulfilling (daily) needs, paying rent and needs for children, to have a livelihood;

2 *Developing activities* to earn more: developing the activity, (nicer room to) attract more customers, increase profits, increase daily production, sell more maize;

3 *Investing in new (energy) equipment*: buying a fridge, need oven at home to bake, establishing a diary unit, getting adequate (cooking) equipment, widening and decorating the room, microwave;

4 *Expanding with new products or location*: training in local juice processing, training in catering, formalization, another (more visible) location, another place than my home, loan to start selling other goods on the market, other products (that clients ask for), more capital to produce more for market day;

5 *Creating new business*: combine canteen with a restaurant, open new restaurant, make fried potato chips, hotdogs and hire more people, start factory for banana and sorghum drinks, buy own cows to have milk for supplying to customers, open own restaurant and employ assistants;

Below we show the frequencies attached to each of those categories among the 94 owners that mentioned reasons to want to grow their enterprise:

Table one and 2 have slightly different numbers of survivalists

Survivalist growth	8
Developing activities	29
Investing in new equipment	18
Expanding with new products or locations	24
Creating new business	15
Total	94

Table 10.7: Frequency of various types of explanations for why they want to grow the enterprise

This table shows little evidence of a binary position on “survivalist” or a “growth-oriented” logic. Instead, growth is seen as desirable by almost all street food micro enterprise owners that we surveyed. When exploring their motivations we only see that a small minority of the cases give “survivalist” motivations (in the meaning as explained by the typical statements above). For the rest the motivations unfold as positions on a dimension rather than as fundamental and qualitatively different logics.

This variable (the explanations for why they want to grow the enterprise) does not correlate with the age of the respondents or with the length of time that the business is in operation. More importantly it neither does with sex of respondents and owners (Spearman’s Rho .027, sign .399). There is no correlation between explanations for wanting to grow and the sex of the respondents and owners. This finding further contradicts that there is a survivalist logic that is female gendered in the street food sector.

Sex of respondent	Survivalist-growth	Developing activities	Investing in new equipment	Expanding with new products or locations	Creating new business	Total
Male	1	10	3	3	5	22
Female	8	18	15	21	10	72
Total	9	28	18	24	15	94

Table 10.8: Explanations for why they want to grow the enterprise by gender

There is also no relation between aspirations to grow and the preferred energy source, which was a focus of the greater study. Even when we simplify this variable into traditional versus modern sources of energy, the relation is weak and not statistically significant (Spearman’s Rho = .144, sign .083). Thus, the motivation to grow is hardly related to the preference for different energy sources, or the other way around. The exception to this is electricity, which appears to be preferred by respondents with more ambitious motivations. It is a key finding for me that only about 6% of your sample used electricity. However, their numbers are too small to show up in the correlation. Charcoal and even wood are about equally popular in all categories of motivation.

	Survivalist-growth	Developing activities	Investing in new equipment	Expanding with new products or locations	Creating new business	Total
Wood	1	5	3	3	3	15
Charcoal	5	14	8	10	5	42
Gas	3	9	6	5	5	28
Electricity	0	0	0	4	1	5
Total	9	28	17	22	14	90

Table 10.9: Preferred energy source and survival or growth motivations

When stating their reason for wanting to grow, many spontaneously also mentioned conditions that they feel would support them. Of the 94 persons that mentioned reasons, 23 mentioned supportive conditions in their statements:

Financial means in general	6
Specifically, (bank) loans	6
Electricity (preserving milk)	4
Training (various skills)	3
New location	2
Equipment	1
Business partner	1

Table 10.10: Supportive conditions mentioned

This list does not indicate that the others would not be helped by such supporting conditions or that they did not desire them too, just that they did not mention them spontaneously. As mentioned previously, energy use was a focus of the greater study and respondents were asked many questions relating to energy use, and energy preferences. It is therefore not surprising that energy related responses such as electricity (for preserving milk), features high up in the supportive conditions mentioned.

Main survey results

The main survey in our study had a total of 751 respondents, 63% of them were female. Of all respondents 75% were owners of the enterprise (not employees) and an additional 6% were co-owners. The questions on aspirations to grow were only posed to respondents that were (co)-owners. Of the 618 (co)-owners only 4 responded negatively on the question whether they would like to expand their enterprise if that option would be available, two men and two women. Thus, the picture of the scoping phase is confirmed. Among both men and women in the street food sector, there is an almost general wish to expand the enterprise. Now let's go deeper into this.

	Gender of the Owner		
	Female	Male	Total
Expand the range of products the enterprise offers	148	103	251
Increase production	52	25	77
Invest in new equipment	66	28	94
Improve to a more permanent/solid structure	46	14	60
Increase the size of the enterprise (e.g. bigger space)	27	15	42
Move my current enterprise to a better location	26	13	39
Hire staff/hire more staff	2	5	7
Open another enterprise in the area	19	16	35
I never considered what I would do	4	3	7
Refused to respond	0	1	1
Total	390	223	613

Table 10.11: Types of aspired expansion and gender

Unlike the scoping phase we did not ask *why* they would like expansion but *how* they would like to expand their enterprise. Expanding the range of products is most popular, followed by investing in new equipment, increasing production and getting a more permanent and solid structure to work from. While not all statements are equally ambitious, they hardly show a picture of just survivalists' dreams. There are also no significant differences between women and men.

In addition to the quantitative surveys, similar evidence was found in the 105 qualitative interviews. For example, Fatim⁸³, a Senegalese widowed woman (aged 45-54, no education, informal enterprise) indicated that:

“I would like to move the business to a more formal, well-structured building where I could do other activities, such as trade of fabrics, shoes and others. Thus, I would be able to recruit a person who would ensure the catering, and as I grow older, I will limit herself to sale only.”

Similarly, Edward (Rwandese, single male, aged 18-24, primary education, semi-formal enterprise) claims that:

“To grow my business, I plan to buy new and modern appliance like fridge, microwave to heat some of my product in order to deliver better service.” That is, he wanted electricity to grow the business.

Whereas Muteteli (Rwandese married woman, aged 25-34, primary education, formal enterprise) expresses:

“Of course, I do have projects within the next years to open other shop of milk processing. I would like to have a structure large enough to offer other kinds of products.”

Knowing that almost all want to grow and even have concrete ideas on what their priority investment or next steps would be, the next question is what prevents them from doing so. We asked about the barriers they met when becoming an entrepreneur. The issues that respondents agreed and strongly agreed to were:

- no access to capital	275
- lack of space	77
- local regulations make it difficult	76
- too much competition	75
- surrounding people disapproved	27
- limited time because of family responsibilities	26
- lack of skills	23
- no barriers encountered	101

There were hardly any differences between women and men in these answers. Slight more men perceived problems with local regulations, while slight more women perceived problems with lack of space and strong competition. However, these correlations are very small and only statistically significant because of the large numbers in the survey. The issues that gender stereotypes would expect to show a difference (pressures by family responsibilities and disapproving surrounding people) were not often mentioned and when they were, they were mentioned proportionally by women and men. Access to capital seems to be the main bottleneck. These survey findings are supported by the qualitative data. Lesedi (South African single woman, age 54, secondary education, semi-formal enterprise) indicates that money is the main inhibiting factor for growing her enterprise: “Without money, it won’t grow”. If money were available, she explained that she would move to a better location.

Similarly Viviane (*Senegalese married woman, aged, no education, informal enterprise*), expressed:

“If I could, I would increase the size of my business as soon as possible. I have the ambition but the financial means are lacking. I would run a big formal restaurant with modern equipment and all possible amenities. A [LPG] stove cooker would make it easier for me because I could prepare several dishes at one moment but I can’t afford it nor can I afford to bear the cost of gas.”

Correspondingly, Mukantagara (Rwandese married woman, 35-44 years old, secondary education, formal) highlights that:

“The main problem we focus [on] is financial, but when I get more capital nothing can stop me to continue my business, after that I will increase the number of sales.”

Amahle (South African single woman, 34 years old, secondary education, informal enterprise), indicated that in order to grow she would have to move to better location with more customers and water from taps because for now they buy litres of water from shops. She would appreciate to have a gas stove or electricity. Her male counterpart Leon (South African single man, 32 years old, secondary education, semi-formal enterprise), stresses

⁸³ Respondent names have been changed to ensure anonymity of respondents

that even though he wishes to grow his business, competition is hitting him, as everyone wants to sell chicken wings and at a very low price.

We also asked to what extent they agree with a number of statements to indicate their growth aspirations. Table 6 shows that indeed many owners of the enterprises mention that they are necessity driven. But this is not more so among women than men, which disproves the popular assumption that more women are represented in survivalist necessity-driven enterprises than men. In fact the correlation is the other way around. In our sample, more males strongly agree with the statement than women (Spearson's Rho is $-.116$, sign. $.004$). Moreover, their agreement does not imply a sharp dividing line in entrepreneurial logics at all. Respondents may strongly agree that their motivation for operating an enterprise is necessity driven while they also strongly agree that they would like to ultimately develop their enterprise into a formal business. Being necessity-driven does not appear to have any bearing upon the entrepreneurial logic of an enterprise owner or their aspirations to grow.

		I am self-reliant out of necessity				Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	
Gender of the Owner	Female	140	218	32	3	393
	Male	111	94	18	2	225
Total		251	312	50	5	618

Table 10.12: Statement on necessity driven and gender

Table 7 shows that a vast majority, men somewhat more than women, would like to ultimately develop into a formal business (Spearman's Rho is $-.096$, sign. $.017$). Even though the two statements in table 6 and 7 look contradictory in terms of entrepreneurial attitude, they correlate positively (Spearman's Rho $.210$, sign. $.000$) indicating that being necessity-driven and aspiring to grow are not mutually exclusive. A person can in fact have both feelings at the same time and that being necessity driven can positively impact aspirationst to grow and develop one's business.

		I would like my enterprise ultimately to develop into a formal business, like a real restaurant or food product factory					Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	
Gender of the Owner	Female	211	144	18	16	4	393
	Male	143	66	7	8	1	225
Total		354	210	25	24	5	618

Table 10.13: Statement wish to develop into formal business and gender

Our qualitative data supports this finding, for instance Sentwali (Rwandan single male, aged 25-34, no education, informal enterprise) states that:

“Of course, I do have the project of creating a restaurant in the next couple of years and we actually also plan other things. It is my dream to have a restaurant.”

His female counterpart Uwimana (Rwandan married woman, aged 25-34, no education, informal enterprise) expresses a similar desire growing into a large enterprise:

“Yes, because my dream is to have a big known restaurant in my country, with my dreams I cannot wait those years. If I have money, I can start now.”

These ambitions are broadly shared and go well beyond a subsistence or survival orientation. There is hardly a difference between women and men. The only gendered difference is that men are slightly more eager to develop into a formal business (Spearman's Rho is just $-.084$).

		I would like to use hired labour to expand my enterprise						Total
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Refused to respond	
Gender of the Owner	Female	130	158	32	54	18	1	393
	Male	107	82	12	16	7	1	225
Total		237	240	44	70	25	2	618

Table 10.14:: Statement hiring labour and gender

A large portion of the (co)-owners in our sample also agreed with the statement that they would like to hire more people to expand their enterprise but some disagreed (%). Employing people to expand their enterprise was also seen by some in the qualitative data to be a way of contributing to the country's economic development. For example, Diana (Senegalese widowed woman, aged 55-64, no education, informal enterprise) explains:

“If I could develop my business, I would buy modern equipment to improve profitability and diversify the range of products. I will increase the size of the business, hire more employees in order to contribute in the growth of the country's economy.”

Aya (Senegalese divorced woman, aged 25-34, no education, informal enterprise) expresses a similar desire, and indicates that:

“To develop my company, I would like to change location, have equipment and modern energy sources. I would also like to recruit young girls in order to contribute to my country's development by helping women to be self-reliant.”

		I reinvest profit in my enterprise					
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Total
Gender of the Owner	Female	153	173	35	20	12	393
	Male	110	83	23	6	3	225
Total		263	256	58	26	15	618

		I seek external sources of capital to expand my enterprise.					
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Total
Gender of the Owner	Female	170	167	18	22	16	393
	Male	115	70	19	11	10	225
Total		285	237	37	33	26	618

		I would like financial support to invest in improved equipment					
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Total
Gender of the Owner	Female	205	164	6	7	11	393
	Male	138	70	6	5	6	225
Total		343	234	12	12	17	618

		I would like financial support to invest in a nicer stand/structure						
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Refused to respond	Total
Gender of the Owner	Female	198	163	9	10	10	3	393
	Male	135	74	5	5	5	1	225
Total		333	237	14	15	15	4	618

Table 10.15: Statements reinvesting profits and seeking financial support and gender

As can be expected, the answers on all statements of tables 7, 8 and 9 are significantly correlated with one another (all sig.=.000). Most correlations have Rho's between .3 and .4. Even stronger are the correlations of wanting to grow into a formal business with seeking financial support to invest in new equipment (Rho = .440) and a nicer stand or structure (Rho = .430). The latter two correlate Rho = .540 among each other. The implication of this is that the aspiration to grow coincides with quite rational sub-goals towards investment. This also emerged in the qualitative interviews. Abongile (South African married woman, age 53, secondary education, semi-formal enterprise) expressed that:

Hopefully the business will have grown in 2-5 years' time and will be using a different energy source like gas stoves and better equipment. Would love to move to a better location and some capital would be ideal.

In Rwanda, Ranihura (Rwandese single man, aged 18-24, primary education, semi-formal enterprise), confirms:

“To grow my business, I plan to buy new and modern appliance like fridge, microwave to heat some of my product in order to deliver better service.”

Similarly, Titi (Senegalese married woman, aged 55-6, no education, informal enterprise) argues that:

“Yes, of course I intend to change production scale first by exporting my products abroad. Then, I plan to set up other sites in the other regions of Senegal while taking their needs into account. In order to develop this business, we intend a change of scale of production by increasing our production capacities. To develop my business, we need modern equipment so as to be able to export our products. To achieve this, we will need a gas oven and an electric oven for couscous drying.”

The above has shown that the (co)-owners of street food enterprises also want to invest in their business. This is consistent with what we have seen above: that access to capital is the main bottle neck. Again, the differences between women and men are very small. Men are slightly more inclined to want to reinvest profits ($Rho = .096$). How small such difference is, is illustrated by the fact that 83% of women (strongly) agree with that statement, as against 86% of men. So for all practical purposes, like designing support schemes, there is no difference between female and male owners in the street food sector.

Stronger are the correlations with the preferred energy source used to prepare food. Three sources of energy stand out in the answers to this question (multiple entries were possible: gas, mentioned 401 times, charcoal 367 and electricity 172 (wood was the runner-up, mentioned 75 times.) Interestingly enough, there were no correlations between the preferred use of electricity and the ambition statements from tables 7, 8 and 9. The wish to develop into a formal business correlated $Rho = -.192$ with preferring charcoal, indicating that charcoal preference coincided with more often (strongly) agreeing with the statement. There was no such correlation with gas or electricity users. Seeking external capital to expand correlated with the preferred use of charcoal ($Rho = -.202$). Gas users are relatively less inclined to (strongly) agree ($Rho = .213$). However, still the majority of gas users would like to find external capital for this purpose (see table 10 and the supporting statement from the qualitative data below).

		I seek external sources of capital to expand my enterprise.					
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Total
Gas	No	171	94	9	13	11	298
	Yes	114	143	28	20	15	320
Total		285	237	37	33	26	618

Table 10.16: Preference for gas for cooking and seeking external capital for expansion

Gahji (Rwandese married woman, 18-24 years old, secondary education, formal enterprise), states:

“Yes, I want to expand this restaurant by increasing the number of services and next year I will start to use gas cooker because I want to improve service and to reduce the energy consumed.”

A number of the enterprises have already a formal (paying taxes) or a semi-formal (paying rent for the place or permits fees, but no taxes) status. There are big differences between the three countries in this regard. In Rwanda, informal enterprises are illegal therefore all enterprises are pushed into at least a semi-formal status, but this has not been very successful in achieving any better circumstances for informal enterprises. In Senegal the semi-formal category cannot be separated from the informal one – both those that declare that they are informal or semi-formal pay some form of tax, rent or fee to the authorities. In South Africa the informal enterprises are just a small majority and the semi-formal sector is the largest of the three countries. All in all their answers to the ambition statements do not differ much between those types of enterprises, mostly shifting between agreeing and strongly agreeing. If anything, it is not the informal sector that is least ambitious but – by small margins – the semi-formal sector (see table 11). Even after recoding the type of enterprise variable to reflect this, the only significant correlation ($Rho = .145$, $p = .042$, $n = 198$) on a country level was that of South Africa

on the statement on wishing financial support to invest in a nicer stand. We conclude that the ambition to grow is widespread over all categories of enterprises, including the informal sector.

		I would like financial support to invest in a nicer stand /structure					
		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree	Total
Formal	1.00	9	8	1	1	1	20
	2.00	25	62	4	8	1	100
	3.00	14	51	2	2	9	78
Total		48	121	7	11	11	198

Table 10.17: Type of enterprise and wish for financial support to invest in nicer stand in SA

The assumption in part of the literature is that the owners of many micro enterprises, especially those operated by women, like in the street food sector, have a “survivalist” orientation that is very different from the “corporate growth” orientation that is expected by economic theory. Both the results from the scoping phase and those from the main survey suggest that this division in separate categories is actually senseless. This is surely the case in the street food sector in the three African countries studied here, which also casts great doubt on whether this assumption is false in other cases too. Statements such as this below by Constance, a Senegalese women in her early twenties support our argument, as she explains that:

“Of course, I have considered changing production scale. I plan to open within 3 months another place in the main market located in downtown, Kaolack. With this site, I will look for a new manager and I will recruit 2 or 3 people for the kitchen. To change scale of production, I would also like to have clients all over the city of Kaolack. I would like to prepare the lunch and dinner for the 4th of April celebration of the Independence Day for the staff of the Governance service and other officials in Kaolack. If I had the means to develop my business, I would look for new materials such as electric or gas cookers, microwaves and other electronic kitchen equipment. I would also buy a generator to avoid production disruptions in case of electrical failure.”

This statement shows that even women in the street food sector who may or may not be necessity-driven do aspire to grow their business. It is almost offensive to assume otherwise. Furthermore, the enterprises have concrete ideas of the steps that they would take to expand their business.

DISCUSSION

In literature, some authors make a rather strict division between various entrepreneurial logics. Female operated micro- and informal enterprises in sectors with low barriers to entry are thought to be prone to coincide with a “survivalist” orientation that in turn prevents further development. This could be a counterargument against policies or support schemes trying to stimulate such development, for instance with soft loans and training. In this sense it would be a pessimistic view. However, when we let the women and men that are operating and owning such businesses speak for themselves, the data shows a different picture. Almost all interviewees claim that of course they want to grow their enterprises. Furthermore, when we test whether this wish is not just superficial, they prove to have a great variety of reasons, often ambitious ones, and clear ideas on how to expand their business. They are not held back by lack of ambition, but by barriers and lack of resources. As for gender differences, surprisingly (given the expectations in some of the literature that female owners are even more survivalist oriented than men, and given the gendered stereotypes on male and female behaviour in general), we found remarkably *little* differences between female and male owners, actually hardly any.

Concluding that at least in our study, gender stereotypes prove completely wrong, both those on micro- and informal businesses and those related to gender, is a very interesting result. However, beyond the stage of “myth busting”, it also makes one wonder how it is possible that engaged observers arrived at the conclusion on separated entrepreneurial logics to begin with. We do not think that these authors are just narrow-minded or prejudiced. What then could explain such vastly different results?

A first answer might be implied in our methodology. Our study is not based on observations and case studies, but in the surveys and interviews we deliberately let the enterprise operators and owners speak for themselves.

Letting the women and men in this sector speak for themselves, is an important characteristic of our study, and produced very different results than some literature would suggest.

But then, why would observations give different interpretations of reality than when you ask the people themselves? In other words, if these authors were right that they *observe* a lot of survivalist behaviour, how could that be explained? For that, we turn to the Contextual Interaction Theory (Mohlakoana, 2014; Bressers et al., 2016) and especially the notion of “self-efficacy assessment” (Bandura, 1986) that is incorporated in it. In Contextual Interaction Theory (CIT) three actor characteristics are discerned that drive peoples actions and interactions: motivation, cognitions and resources. These three not only impact on the process, but over time impact also on each other. In CIT, motivation is produced by a) own interests and values, b) external pressures and c) self-efficacy assessment. Bandura’s notion of self-efficacy assessment means that people assess to what extent the action they like to undertake (for instance on the basis of their own interests and values) is anywhere feasible given the supportiveness of their environment (available resources). If not, they will not try and fail, but even be demotivated to try at all. In our research we came across a lot of ambition, but that ambition was sometimes phrased in conditional terms: “if only I had the access to investment money”, “if only I had the better location”. Thus, it is very well possible that researchers *observe* a lot of survivalist behaviour, what they interpret as lack of intrinsic motivation. It is then not the observation that is wrong in those cases, but their interpretation of it. The deeper cause is not the lack of intrinsic motivation, but the lack of supportive circumstances that make their ambitions more feasible, and visible. This is nicely illustrated by the words of one of our interviewees: “The main problem we face is financial, but when I get more capital nothing can stop me ...”. These women and men are not held back because they have a “survivalist logic” but because they are deprived of resources that could assist them to realise their ambitions to grow. While explaining this way the difference between the observations of some authors and our results when we let the people speak for themselves, it gives a totally different picture of reality, with very different implications.

We argue that the way survivalist enterprises are characterised, leads us to believe that they are hopeless, with no potential for growth; ignoring that some enterprises may provide the financial stability, flexibility and/or independence desired by the entrepreneur. The following table shows how a third category of entrepreneurial logic, “self-employed” might better describe the reason why so many women enter the informal sector.



Photos: Abigail Kemper Women preparing and selling food at the Durban markets, South Africa.

“Just getting by”	“Earning enough to meet her needs”	“Employing and/or expanding business”
SURVIVALIST	SELF-EMPLOYED	GROWTH-ORIENTED

Necessity-driven	Necessity- and opportunity-driven	Necessity- and opportunity-driven
No alternative employment	Desire to be self-employed	Desire to be business owner
Limited by family responsibilities	Limited by family responsibilities perhaps by choice	Able to share or afford assistance with family responsibilities
Risk neutral / have no choice	Risk averse?	Risk taking?

Figure 10.8: Comparing three possible categories of entrepreneurial logics for women

As we have shown, almost all respondents in our study indicated a willingness to grow and have calculated ideas of how they might expand the size of their enterprise. But does their ambition to grow contradict the reason they entered this sector or started their business? Does it indicate that since starting their business or entering the sector, they have evolved or graduated from necessity-driven to now also opportunity-driven? As we did not do longitudinal research, we cannot answer this question. We can just show that the majority of men and women in our sample simultaneously agree to being necessity-driven and wanting to “develop into a formal business like a real restaurant”. We also saw that limitations by family responsibilities are among the least mentioned barriers (only by 4%, no difference between women and men). Our data confirms that while the majority claims to be risk averse, they at the same time actually do want to invest and hire more people as soon as they can. All in all, it might be fair to state that even while the intermediate position in entrepreneurial logics sketched above is an improvement compared to the simple division of “growth-oriented” and “survivalist-oriented” that is often mentioned in literature, reality is much more complex: most entrepreneurs will have characteristics from all so-called logics, and moreover most will be closest to the third, growth-oriented pillar. Even when adverse circumstances limit their options to grow their business in the real world, it is those circumstances and not their “entrepreneurial logic” that holds them back.

One could argue that ambition to grow and the ‘real’ potential for economic growth in the street food sector are not matched. Some would say the market is oversaturated and even with the right micro-finance and favourable policy support, the growth of one enterprise would squeeze out another – resulting in zero net growth. However, we argue that there is real potential for inclusive economic growth; particularly growth in employment and income generating opportunities for women.

Our study shows that informal and micro-enterprises want to employ more people, invest in new equipment, have more sites, attract more customers. Studies in urban food systems and food security acknowledge that urban populations in African cities is growing and so too is the demand for affordable nutritious meals (Skinner and Haysom 2016). Thus a growing market for street food can sustain the growth that enterprises aspire to. Perhaps not growth in profits per unit of production, but certainly growth in market size and employment. The street food sector already supports an increasing circulation of money in the cash economy, and reaches poorer neighbourhoods than many other economic activities. If allowed, this sector can respond to growing urban food insecurity identified in various studies as well as generate informal self-employment opportunities, especially for women.

CONCLUSIONS AND POLICY IMPLICATIONS

In this paper we explored the aspirations of the micro- and informal enterprises in the street food sector in South Africa, Rwanda and Senegal. We started out with the research question: “To what extent can a division between survivalist and growth-oriented entrepreneurial logics be demonstrated in the case of the street food sector in three African countries and how do these logics relate to gender?” Our results provide a clear answer to both parts of this question: it is not possible to demonstrate a division between survivalist and growth-oriented entrepreneurial logics. The majority who agreed with the statement: “I am self-reliant out of necessity”, also agreed strongly with multiple statements about aspiring to grow with clear ideas of how to do so. And this is true for women as much as men.

The policy implications of these findings are large. Instead of a marginalised branch of the economy that just has to be phased out in the advance of modernity, the street food sector can be a source of growth and a way for development policies to reach the women who dominate this sector. At present development policies prioritise opportunity-driven enterprises over those driven by necessity because in the literature the former are deemed growth-oriented and the latter are categorised as survivalist with no aspirations for growth. On the contrary, our findings show that necessity-driven enterprises do aspire to grow. Furthermore, policies that discriminate against survivalist enterprises in the street food sector inadvertently discriminate against the women who dominate the sector. Our research shows that women derive multiple benefits from working in this sector – none of which make them any less ambitious than men. Policies are less directed to development based on the enterprise owner's aspirations, but on what the authorities and policy makers think is best. Hence, if willingness and aspiration to grow is not in policy defined terms, it is not taken seriously and no resources are dedicated to this, which ultimately prevents any supportive conditions for enterprises to realise their growth aspirations. We therefore suggest that the categorical definitions of survivalist versus growth oriented entrepreneurial logics are potentially damaging or misleading, and that assigning such entrepreneurial logics leads policy makers to discriminate upon low profit and livelihood strategies. Even the proposed intermediate category of self-employment (driven by the desire to be financially independent), which was introduced in the discussion section has the potential to be misleading.

However, while this is our conclusion and the end of this paper, it is not the end of the work to be done. While the street food sector operates in a very local setting, an integral, multi-sectorial, and development-oriented policy approach is necessary and will also need to be tailor-made to local circumstances. Both the feasibility and the implementation of such policies are often problematic (Skinner and Haysom, 2016; Ramani et al., 2013). Last but not least is the relevance of our analysis for the debate on entrepreneurship in micro businesses and gender across all sectors. If the common assumptions on divided entrepreneurial logics and gender in microbusinesses proved wrong in our case, perhaps they are wrong in most cases.

: VARIABLES MEASURED FOR THE EMPOWERMENT MODEL

Q51 - Who makes the important decisions regarding your household?	Decision making power
Q52 - Which energy sources do you use at home?	Decision making power
Q53 - Who decides on energy use in your household?	Decision making power
Q 50 Type of enterprise	Enterprise characteristics
Q6 - Sex of current owner	Enterprise characteristics
Q17 - In this enterprise, how many employees (people involved in this enterprise) including you are female?	Enterprise characteristics
Q18 - In this enterprise, how many employees (people involved in this enterprise) including you are male?	Enterprise characteristics
Q19 - Was the previous owner (if any) of this enterprise a woman?	Enterprise characteristics
Q23 - What description [location of enterprise] is most accurate for your enterprise?	Enterprise characteristics
Q29 - What energy source do you use to prepare the product? (can select multiple answers here)	Enterprise characteristics
Q4 - Marital status	Household characteristics
Q50 - Are you the main breadwinner in your household?	Household characteristics
Q1 - Respondent age	Personal characteristics
Q2 - Gender of respondent	Personal characteristics
Q3 - Highest education level of respondent	Personal characteristics
Q57 - If you are receiving an energy subsidy, did this encourage you to start your food business?	Social characteristics
Q58 - Would energy subsidies be a reason for changing your energy source for your business	Social characteristics
Q59 -How much do you agree with this statement (Likert scale): Your business relies on the energy subsidy in order to survive	Social characteristics
Q65 - If you experienced any barriers to become entrepreneur, what were these? Local regulations made it more difficult to start the business (1 of 9 multiple response answers)	Social characteristics
Q60 and 66 - How much do you agree with the following statements (Likert scale):	
Having this enterprise makes me more respected by my partner than when staying home	Appreciation
Having this enterprise makes me more appreciated by my extended family	Appreciation
My enterprise allows me to take control over my life financially	Direct benefits of enterprise
My enterprise allows me to engage more with society	Direct benefits of enterprise
Being an entrepreneur makes me more confident at home	Direct benefits of enterprise
Since I have an enterprise, I feel that I have more control over my life	Direct benefits of enterprise
I can solve my own problems	Self-confidence
I set my own agenda (I plan my own life activities)	Self-confidence
My partner encourages me and helps me when necessary	Support (only asked owners)

My children encourage me and help me when necessary	Support (only asked owners)
Colleagues from the surrounding enterprises give me a hand when needed	Support

Table 10.18: Survey questions in relation to the conceptual mode

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