Business Innovation Facility

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Inclusive business in practice – Case studies from the Business Innovation Facility portfolio

Commercialising cassava: New opportunities for Universal Industries and Malawian smallholders

This report is one of a series of 'deep dive' case studies that seeks to understand inclusive business in practice. The series explores contrasting inclusive businesses, all of which have been supported by the Business Innovation Facility.

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Foreword: An introduction from the author

Led by the chief of the farming association and followed by chanting women from the local village, we walk down a dusty path surrounded by endless fields of maize and pigeon peas. They rarely get visitors in Mandauala, a small village in the middle of the Zomba District countryside, and my visit is a reason to celebrate. "Cassava could be a real game-changer for their futures," explains Tymon Mphaka during our walk through the fields. Tymon is a young Malawian with enviable drive and energy. As Senior Market and Trade Officer at Farm Concern International (FCI) he spends his days driving from village to village across the bumpy roads of Malawi in a four-wheel drive. His job is to coordinate smallholder farmers into functioning farming associations, training them and supporting them during their first interactions with private sector buyers.

Three hours into a meeting at Universal's Blantyre office, we realise that, completely immersed in the conversation, our discussion with the Operations Director of Universal Farming and Milling Limited has run overtime by two hours. Navin Kumar's passion is contagious. It has been nine years since he moved from the South of India to Blantyre with his wife and children. *"I have learnt such a huge amount from BIF during the last two years. Inclusive businesses are the future,"* Navin tells me towards the end of our interview. More than anyone else I spoke to during my field work, Navin really means it. *"I have no doubt that we will make it, learn from previous mistakes and make the production of HQCF a success."*

These two experiences capture the essence of Universal's High Quality Cassava Flour (HQCF) inclusive business: high hopes, large potential gains and development impacts, lessons learnt, perseverance and the drive and passion of a few key individuals.

Universal plans to source raw cassava from poor, marginalised smallholders in order to produce a flour product with high market potential in Malawi and the surrounding region. What makes this inclusive business particularly interesting is Universal's ambition to minimise the role of the middleman in its relationship with producers (a role traditionally played by NGOs), and to source and process a low-value crop never before commercially produced in Malawi.

The last three years have been a true journey for Universal, Navin and others involved in this inclusive business. SInce this case study was written in September 2013, the team have made further progress and taken new initiatives.I hope you find the story of Universal's HQCF as interesting and fascinating as I have found writing this report.

Acknowledgements

I would like to thank the following people who were consulted for the development of this report: Imani Development, Universal, Navin Kumar (General Manager, UFML), Rex Nyahoda (Projects Manager UFML), Neffie Mkumba (Technical Office UFML), Gitau Mbure at ACDI-VOCA/WALA, Vito Sandifolo at C:AVA, Tymon Mphaka at FCI and Rodrick Chirambo at MVP.

The case study would not have been possible without the contributions of Georgina Turner, who was closely involved in the research and analysis in Malawi, and Carolin Schramm, who guided the interpretation and findings.

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Table of Acronyms

BoP	Base of Pyramid
C:AVA	Cassava: Adding Value for Africa
FCI	Farm Concern International
HQCF	High Quality Cassava Flour
NGO	Non-Governmental Organisation
MVP	Millennium Village Project
MK	Malawian Kwacha
MT	Metric Tonne
UFML	Universal Farming and Milling Limites
UIL	Universal Industries Limited
PnL	Profit and Loss Statement

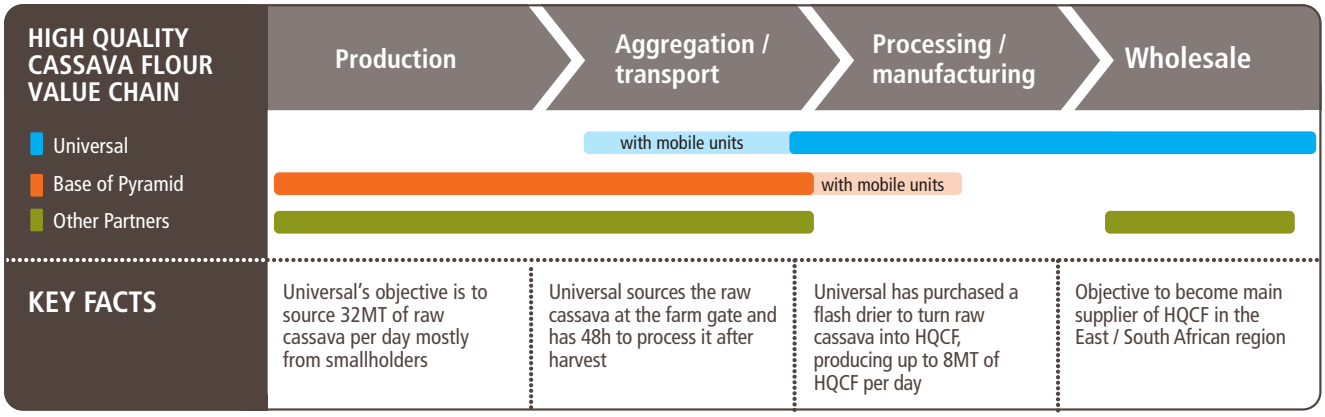
Executive summary

With fertile soils, mild climates and an estimated 78 per cent of the population engaged in agriculture, Malawi offers significant opportunities for growth in agribusiness. Yet at present, the sector only accounts for a small portion of the country's GDP and the farming community is mostly made up of marginalised smallholder farmers with low levels of education, inefficient farming techniques and limited connections to formal markets.

Malawian biscuit manufacturer, Universal Industries, has launched an innovative inclusive business that diversifies its product range while tapping into this agricultural potential by engaging smallholder cassava farmers into its supply chain. As Figure 1 shows, Universal's business venture aims to source raw cassava directly from smallholder farmers for large-scale production of High Quality Cassava Flour (HQCF), which can be used as a substitute for wheat flour in its manufacturing of snacks and biscuits. Not only will this reduce reliance on wheat imports and increase exports for much needed foreign exchange, it also aims to provide smallholders with market linkages, access to business training and a secure source of income, as well as turning a traditionally low-value food crop into a commercial cash crop.

The success of this venture, in terms of both commercial and development goals, depends on a substantial increase in volumes of local production of cassava, and in turn on an effective intermediary working with farmers to share market information and provide extension. While this intermediary role has traditionally been played by NGOs, Universal has had to explore a number of options and is now adapting the model to create more direct engagement between the company and the smallholders. Innovation in forms of farmer engagement is one of the most striking parts of this model, with potential value for other supply chains in the region. It is also the aspect of the model which has been actively supported by advisory support from the Business Innovation Facility.

Figure 1: *Universal's High Quality Cassava Flour (HQCF) value chain*



Universal has faced a number of challenges and set-backs since launching in early 2011, including delayed equipment and the Malawian currency crisis of 2012, but the company successfully started producing HQCF in April 2013, with the aim of breaking even in 2014 and generating a turnover of up to $190,000 after two years. As Figure 2 shows, the project is still in its early stages and gains for the farmers are yet to be fully realised. Nevertheless, the company expects to source raw cassava from around 4,000 farmers by its third year of operation. Given the large number of smallholders across Malawi, potential is high and Universal aims to scale up its HQCF venture even further, doubling production capacity and expanding its network of smallholder producers.

The case study presented in this report is based on existing data and field work conducted for the Business Innovation Facility (BIF) in July 2013, and looks at how the inclusive business model has evolved over time, and how it has adapted to the challenges met during its journey. Some of the most interesting issues that Universal has come across, and that are covered in more detail in the full report include:

- **Sourcing the right volumes at the right price:** With no current formal commercial market for cassava, which is perceived as a food crop and has never been farmed intensively before, Universal faces the challenge of finding a correct pricing model that works for both seller and buyer, and intensifying smallholder production enough to make aggregation of large amounts of cassava root at the farm gate feasible.
- **Engaging with smallholder farmers successfully:** Smallholder farmers have low levels of education and are not used to formal commercial relationships, making contract farming in this current state unfeasible. Universal's model has sought to find innovative approaches to sourcing from farmers.
- **Smallholder buyer-seller relationships are based on trust:** Because a contract farming model does not work in the Malawian context, there are no formal business relationships between smallholders and buyers. These relationships are, therefore, heavily based on trust and require significant time to develop, especially in a new market like the one Universal is creating.

Figure 2: *Summary of Universal's HQCF impacts*

Universal Farming and Milling Ltd

Country: Malawi

Sector: Agriculture

Product: High Quality Cassava Flour (HQCF)

BoP: Smallholder farmers

Website: www.universal.co.mw

Inclusive business model:

Sourcing raw cassava from smallholder farmers for the production of High Quality Cassava Flour. BIF support for drafting the business plan and to develop a smallholder engagement strategy.

Market opportunity:

- New revenue stream from a new versatile product
- Decreasing reliance on wheat imports
- Export of HQCF will provide foreign exchange

Commercial results:

- Project still at its early stages, no revenue generated yet
- Revenue projections are of $190k in Year 4, to be doubled in Years 5 and 6
- Forex gains not quantified yet

Development impacts:

- Aims to reach up to 4,000 smallholder farmers by the end of Year 4
- Benefits to farmers are increased and secure income from the sale of cassava

Future plans:

- Purchase of a second flash dryer to double production capacity
- Scaling up and replicating the model with other farming associations

Note on figures used:

Currency: Financial figures that were provided in Malawian Kwacha are expressed in USD, based on an exchange rate of $1 = 350MK as of 20 September 2013.

Base of Pyramid: Numbers of people reached at the base of the pyramid represent those directly engaged as suppliers, entrepreneurs or consumers, and are not multiplied by household size to represent 'lives touched'.

1 The inclusive business in brief

> **The inclusive business studied here is Universal Industries Limited's High Quality Cassava Flour (HQCF) value chain, which is one part of Universal's business operations. The venture aims to source raw cassava from smallholders to produce HQCF for use in its biscuit manufacturing activities, as well as for export.**

> **Universal aims to source over half of its raw cassava from poor, marginalised smallholders, providing them with market linkages, access to business training and a secure revenue stream. Although similar smallholder sourcing models exist, this venture is breaking new ground by trying to turn a traditionally low-value food crop into a commercial cash crop.**

1.1 What is the business?

The inclusive business that is the subject of this study is the production of High Quality Cassava Flour (HQCF), by Universal Farming and Milling Ltd. Universal Industries Limited (UIL) is a large business by Malawian standards and a well-established household brand. Its biscuits and snacks can be found in most supermarkets across the country and have been consumed by several generations of Malawians. The company is headquartered in Blantyre, which is the commercial hub of Malawi located in the south. UIL's subsidiary, Universal Farming and Milling Ltd. (UFML) is based in Njuli, just outside of Blantyre, and is responsible for all agriculture and agro-processing activities. UFML therefore handles the sourcing and growing of the raw ingredients used to manufacture its snacks and biscuits, as well as the processing of raw cassava into flour for use in biscuit manufacturing.

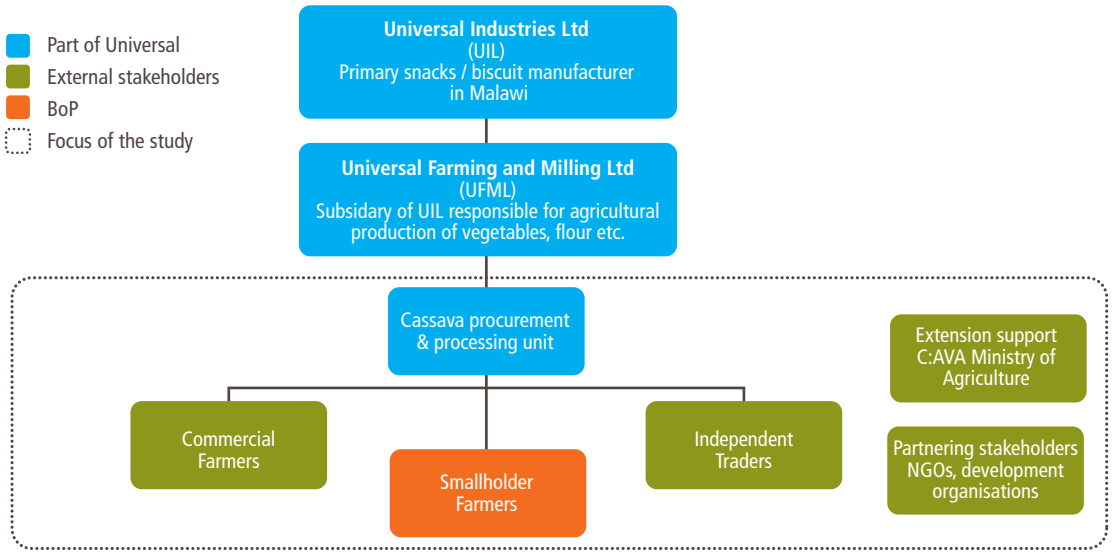
The diagram below shows how the inclusive business model is integrated into the wider company. It refers exclusively to the HQCF value chain, which consists of the farming, sourcing, aggregation and transport of raw cassava from the farm gate to the UFML processing plant where the root is peeled, mashed, pressed, dried and sieved into flour.

Since the raw cassava is sourced from a combination of commercial farmers, smallholders supported by NGOs and occasionally independent traders, the study covers a number of stakeholders, shown within the green border.

Table 1: Universal's HQCF value chain: key facts

Lead company	
Name	Universal Farming and Milling Limited
Sector of operation	Agriculture and agro-processing
Inclusive Business	
Name	High Quality Cassava Flour (HQCF)
Country	Malawi
Product/ Service	Sourcing, purchasing and aggregating raw cassava from smallholder farmers for the manufacturing of HQCF, a versatile product that can be used as a substitute for wheat flour or to produce starch
Relationship with lead company	The inclusive business is one small part of the main company

Figure 3: The focus of this study[1]



[1] Operating as a separate entity from UIL, all agricultural products produced by UFML are then sold to the parent company. The two companies, although operating under the same umbrella, are run independently and run two separate balance sheets, PnLs and are individually audited. All products are sold at competitive market prices from one organisation to the other.

Cassava farming and HQCF

The cassava root is a seasonal crop cultivated all around Africa and one of the continent's most important staple foods. There are two main categories of cassava, a sweeter one and a bitter one. The bitter kind stores for longer and is more popular in the North of the country, while the sweeter type is more common in Southern Malawi, where Universal's inclusive business is based.

In Malawi, seeding time is usually in October and harvesting is nine to 12 months after, between July and October. Once harvested, the root is usually dried in the sun and then ground into a fine powder that is used as flour.

Cassava is viewed as a food crop rather than a cash crop and not generally produced on an industrial scale. Smallholder farmers grow cassava in small amounts alongside other crops and mostly use it for their own subsistence, drying any excess supply and selling it on local markets. Studies show that smallholders only sell between 25 and 50 per cent[2] of the cassava that they produce and consider the revenue generated as a secondary, additional source of income.

High Quality Cassava Flour is a white, flavourless and odourless flour produced from the cassava root, which thanks to its small particle size and moisture content, is a particularly versatile input, useful as a substitute for wheat flour, starch in beer and adhesive for industrial use.

Smallholder farmers holding up a cassava root

HQCF on the left, the more granulose standard cassava flour on the right

Compared with standard cassava flour, HQCF is challenging to produce. By the time the raw root is harvested, there is a 48 hour window within which it can be turned into HQCF; a process that requires cleaning, peeling and grating the root into a wet mash, pressing it into a 'cassava cake' within six hours and drying it in a flash drier for further milling and sieving into a fine flour.

Standard cassava flour is instead produced from dried cassava chips (Makaka). It has a distinctive taste and odour and has a much larger particle size, making it unsuitable for most industrial uses as it does not meet the requirements of packaging manufacturers. It can only be used for hard dough biscuits, which Universal has been producing with a percentage of cassava flour since the 1990s.

The optimal yield is 1kg of HQCF for 4kg of raw cassava, but the amount of HQCF that can be produced from raw cassava depends on the amount of dry content in the root. The higher the dry content, the higher the HQCF yield.

Box 1

[2] The International Institute for Tropical Agriculture/Southern African Root Research Network (IITA/SARRNET)

1.2 How is the business commercial, inclusive and innovative?

How is it commercial?

Universal is venturing into the production of HQCF in order to use the flour in its biscuit manufacturing process to decrease its reliance on imported wheat, and to sell the new product abroad in order to earn foreign currency. To ensure that the model is commercially viable, Universal will need to source cassava at unprecedented scales for Malawian standards. Scale is crucial to making this inclusive business commercially viable, which is why Universal has set itself ambitious production targets from the very beginning.

How is it inclusive?

Universal is planning to source more than half of the raw cassava it needs from smallholder farmers at the BoP. These farmers are marginalised, living on less than $1 a day and not engaged in value chains that link to formal markets. By supplying Universal, they would benefit from a new, diversified and more resilient revenue stream (cassava is less affected by droughts than other crops), guaranteed by a reliable buyer. Universal also plans to provide smallholders with training in farming techniques and business skills.

How is it innovative?

Universal's HQCF value chain is innovative in a number of ways. In terms of the product, it introduced HQCF into the market as a new substitute for wheat, starch or adhesives.

In terms of the business model, Universal has been running a similar model to the HQCF model for Irish potatoes and has been successfully sourcing these from smallholder farmers for the last two years, through partnerships with various NGOs and their farmer networks. But like tobacco, sugar or tea, potatoes are already known to be a cash crop and have been used as such in Malawi for decades. What makes the HQCF value chain truly innovative is the fact that Universal is trying to find a way to source a low-value crop that has never been farmed intensively before in Malawi, directly and sustainably from smallholders. Universal is creating a new market for an agricultural output for which there has historically been little demand. It is aiming to do this by working directly with the smallholders, without the help of a middleman (a role usually played by NGOs), which is an innovation itself in Malawi.

The type of farmers Universal is seeking to integrate into the supply chain are not used to formal sector transactions and models that work for high-value crops such as tobacco cannot be applied to cassava, so a new model has to be created, along with all the changes in attitude and culture that are involved.

2 The story behind Universal's High Quality Cassava Flour

> **Universal first launched its HQCF supply chain venture in early 2011, after seeing the potential of intensive cassava farming in Nigeria.**

> **After suffering a number of unforeseen set-backs including a delayed flash dryer delivery and the Malawian currency crisis of 2012, Universal launched production in April 2013 and in July 2013 was able to source an average of 5MT of raw cassava per day.**

> **Universal still faces a number of challenges around securing volumes and managing aggregation, which are related to engaging with dispersed smallholders cultivating cassava mainly for subsistence.**

2.1 Commercial drivers

There are two key commercial drivers at the core of the HQCF inclusive business. The first is the opportunity to venture into a new profitable business, diversifying Universal's current product offering. No one is producing HQCF in Malawi and in the rest of the South-Eastern African region. By making the business model work, Universal would strategically place itself in an advantageous position as the first mover in a new, potentially lucrative market. The second commercial driver is the need for foreign exchange, which has been exacerbated by the 2012 Malawian financial crisis. Universal is heavily reliant on imports of wheat which are becoming more and more expensive. HQCF would allow Universal to reduce its wheat imports while exporting HQCF to the region to earn foreign currency.

2.2 HCQF timeline

In late 2010, staff from C:AVA, a project funded by the Gates Foundation, took the executives of some of Malawi's largest food processing organisations[3] including Universal on a study tour to Nigeria, where production of HQCF was already happening on a large scale. The objective of the tour was to showcase how HQCF was manufactured and to encourage those entrepreneurs to do the same in Malawi.

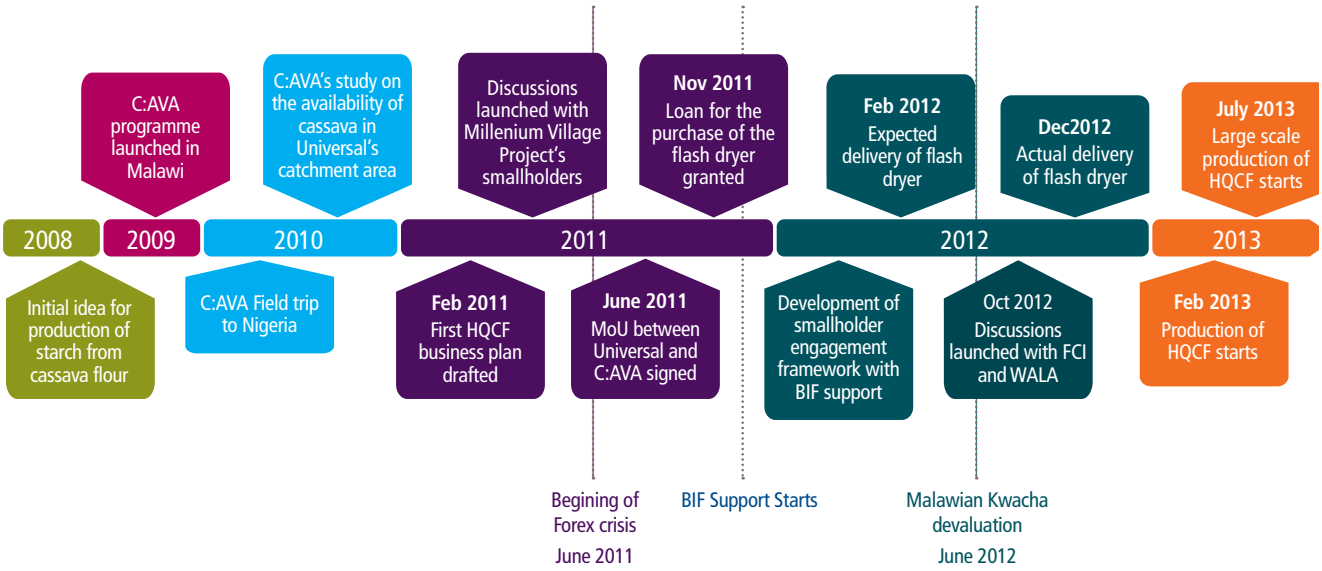
Encouraged by a study conducted by C:AVA in 2010[4], which reported an abundance of cassava in Universal's region of operation, Universal's Board decided to invest into the HQCF business venture. C:AVA reports that most of the other participants to the study tour in Nigeria decided to wait and learn the lessons from Universal's experience.

Universal then drafted a business plan and initiated discussions with C:AVA on how to bring the HQCF to market. A Memorandum of Understanding for co-operation between the two parties was signed in June 2011. C:AVA's role thereafter was to provide technical assistance to Universal on the production of HQCF, financial support to procure the flash dryer, advice on cassava farming techniques and support for Universal to develop the supply chain.

[3] Companies included Rab Processors, Bakhresa Grain and Milling, Press Agriculture and Universal Industries Ltd.

[4] An assessment of the potential of smallholders to supply fresh cassava to flash driers located at Mzuzu and Njuli, C:AVA, 2010.

Figure 4: *Timeline of evolution of the HQCF inclusive business*



Universal then purchased the flash dryer from Nigeria for the final stages of the HQCF manufacturing process. Initially expected for February 2012, the flash dryer was only delivered a year later because of customs issues, a delay that had knock-on effects on the supply chain and on the relationships with the cassava producers.

Universal started setting up its supply base in 2011, which is when it first reached out to the Millennium Village Project (MVP)[5] and its network of smallholder farmers. Universal also approached commercial farmers early 2011 and formalised partnerships for the 2012 harvesting season, when HQCF production was scheduled to begin. It is in late 2011 that the collaboration between Universal and BIF began, lasting for 12 months during which BIF provided assistance in several technical areas (see Box 2 for details)

Because of the delays caused by the flash dryer, production of HQCF only began in April 2013 and entered into full swing in July 2013, during which Universal was able to source an average of 5MT of raw cassava per day.

BIF support in brief

Although Universal had longstanding experience in the agri-processing sector and had already developed its smallholder potato sourcing inclusive businesses, producing HQCF was proving challenging, Universal had to understand the commercial implications of venturing into a completely new product and a new smallholder-focused value chain. These difficulties were reflected in the baseline assessment carried out by BIF, during which the lack of information and the need to access finance were highlighted as core challenges.

BIF support was therefore provided in three main areas: drafting the business plan, developing a smallholder engagement strategy and designing KPIs. BIF support allowed Universal to strengthen the business plan and to understand the complexities of working with smallholder farmers in the cassava value chain, and the time needed to build robust relationships with the farmers.

"We learnt that though we might have done our own internal study on a supply chain or value chain, a fresh outside perspective can contribute tremendously to the project. For some reason, there is a risk that managers from within who do the initial scoping study might omit certain important elements which are picked up and highlighted by the consultant."

Navin Kumar, Universal Operations Director

Box 2

2.3 Market context and competitors

Market demand

Since HQCF is sold on the market as a direct substitute for wheat flour, its price is highly dependent on international wheat prices, which have been extremely volatile during recent years. At the time of writing this report, Universal has estimated the market price of HQCF at $0.57 (200MK) per kg.

Universal does not see demand for HQCF as a challenge. Research by C:AVA suggests that because of the versatility of the product and its competitive price compared to wheat flour, there would be sufficient demand on regional markets for supply levels anticipated by Universal.

What could pose a challenge is securing the supply of raw cassava. Although Malawi is the second largest producer of cassava in the South-Eastern African region, it does not trade any on the export market. Cassava is grown by an estimate of around 5,400,000[6] farmers, most of whom harvest it for their own subsistence and for sale in small quantities on local markets. The number of smallholder farmers that grow it for commercial reasons is estimated at only 380,000 nationally, which corresponds to only seven per cent of the cassava-growing farming population[7].

Cassava is mainly grown in the lakeshore areas of central and northern Malawi, where more than 75 per cent of households grow the crop. In the Southern regions that are the focus of this study however, the proportion is much smaller with 11 to 24 per cent in Zomba and Blantyre, and 50 to 74 per cent in Chiradzulu and Mulanje[8].

Competition

For Universal, competition is an issue not so much in terms of others producing HQCF in the market, but in terms of sourcing the raw material. Local markets and the subsistence needs of farmers represent competing demands for raw cassava. For instance, in the eventuality of drought and poor production of maize, smallholders tend to consume more cassava and sell less on the market. In general, smallholders are able to sell cassava on local markets for higher prices, even if in smaller quantities. Moreover, the type of cassava that is farmed in Southern Malawi is the tasty, sweet kind that smallholders often prefer to eat raw rather than to sell on the market.

[5] Launched in 2006, the Millennium Village Project is a programme run by the UNDP, Columbia University's Earth Institute and Millennium Promise. At the cost of $120 per beneficiary, it promotes an integrated approach to rural development by providing key infrastructure (clean water, sanitation) and resources (education, food production, health care) to rural communities in order to move out of the 'poverty trap'

[6] World Bank data, Year 2013. Database, accessed on 8th August 2013 http://data.worldbank.org/

[7] The International Institute for Tropical Agriculture/Southern African Root Research Network (IITA/SARRNET)

[8] Commercial Dynamics in Zambia's Cassava Value Chain. Steven Haggblade and Misheck Nyembe. December 30, 2007

"To create the new market they need to introduce a new variety of cassava that doesn't compete with people who eat it."

Robin Saunders, Managing Director of Wallace Estates, Zomba district

2.4 Other country-specific factors

Ranking as one of the least developed countries in the world, Malawi's local economic and social context present challenges for any business. According to latest available data, 51 per cent of the population lives below the poverty line[9], and life expectancy is lower than the average for Sub-Saharan Africa at only 54. The Malawian economy is heavily reliant on agriculture with approximately 78 per cent of the economically active population working in this sector, mainly as smallholder and subsistence farmers.

Characteristics and challenges of working with Malawian smallholders:

The characteristics that make trading cassava with Malawian smallholder farmers particularly challenging include:

- Malawian smallholders, and especially cassava producers, are not formally linked to markets and formal agricultural value chains and have little experience of interacting and satisfying the demands of large buyers in the private sector
- Farmers lack education and business sense. They have no or limited understanding of gross profit margins, pricing, scale etc
- They are rarely organised into functional farming associations, making communication with the private sector difficult
- Cassava is produced by a large number of farmers, but spread out in small plots, grown as a boundary crop or intercropped, making aggregation a challenge
- Agricultural support from the government is limited, with a ratio of one extension worker to 1,500 households[10]
- Food security comes before anything else. During droughts farmers are likely to consume the cassava rather than sell it
- Contract farming is not yet established in Malawi[11] among smallholder farmers.

Table 2: Summary of influences on the initative

Factor	Influence
Individual champion/ leadership	Navin Kumar, General Manager of UFML, played a crucial role in driving the inclusive business forward, obtaining the board's buy in, building relationships with partners and seeking financing and other support such as BIF. *"Securing the supply chain is a question of time and money. A lot of individual effort is needed or otherwise it wouldn't work."* Navin Kumar, UFML General Manager
Macro-economic conditions	The volatility of the Malawian Kwacha had both a positive and negative influence. The fiscal instability pushed the company to move into HQCF, a product that can be exported for valuable foreign exchange. But devaluation, in May 2012, caused great financial strain to Universal, which then re-prioritised investment strategies and risk (therefore limiting the resources to dedicate to HQCF).
Regulatory context	As a result of customs, the late delivery of the flash drier not only delayed the start of HQCF production, but also had a knock-on effect on the cassava supply chain, the relationship with farmers and the plans for the 2013 harvest season.

[9] World Bank data, year 2011. Database accessed on 8th August 0213 http://data.worldbank.org/–

[10] National Export Strategy, 2012

[11] Contract farming in Malawi, for the Ministry of Agriculture and Food Security". World Bank, J Agar and P Chiligo, 2008.

3 How does the inclusive business model work?

- **Universal initially designed a model in which cassava was sourced from a combination of commercial farmers, independent traders and smallholder farmers. To reach smallholder farmers Universal was hoping to partner with NGOs.**
- **To make the inclusive business model commercially viable, the price of cassava cannot be higher than $0.7 per kg (25MK). Scale is also important to breakeven in the long run because of the current levels of investment.**
- **During the first year of production, Universal has struggled to successfully engage with farmers, to aggregate the required volumes of raw cassava, and to source the raw cassava at the prices required for commercial viability.**
- **Universal has revised the business model in order to make it more commercially viable, investing in production facilities that make the aggregation of cassava simpler, and by taking a lead in the relationship with the smallholder farmers, minimising the middleman role of the NGOs.**

3.1 Overview of the value chain

The HQCF initiative is a producer-focused inclusive business, in which the manufacturer, Universal, has set up a supply chain that sources part of its inputs from smallholder farmers at the BoP. The BoP is therefore involved in the early stages of the value chain, alongside other producers such as commercial farmers and independent traders.

3.2 The current model

Figure 6 overleaf provides a graphic overview of the current state of the HQCF inclusive business model. The raw cassava is sourced from the three producer types described in Box 3, with the NGOs currently acting as the middleman providing a communication link between Universal and the farming associations that they have set up. Other players include C:AVA and the Ministry of Agriculture, who provide extension services and training to the farmers.

Who forms Universal's cassava supply base?

Smallholders: These are farmers with little education and limited access to markets who farm on small plots of land of an average size of 1 acre (0.4 hectares). Because of their large numbers they have the potential to provide extremely high levels of supply.

Commercial farmers: These are well-educated, business-savvy entrepreneurial farmers who farm on large plots of up to 50 hectares. Their main products are coffee, tea, chillies, maize and tobacco. They can provide a regular and reliable supply, and would be able to start producing on a large scale faster than smallholder farmers.

Independent traders: These are the middlemen that source agricultural products from the farm gate to then sell them at either local or regional markets for a profit. They offer the flexibility to source extra cassava when supply cannot meet demand.

Box 3

Figure 5: Roles and key facts in the HQCF value chain

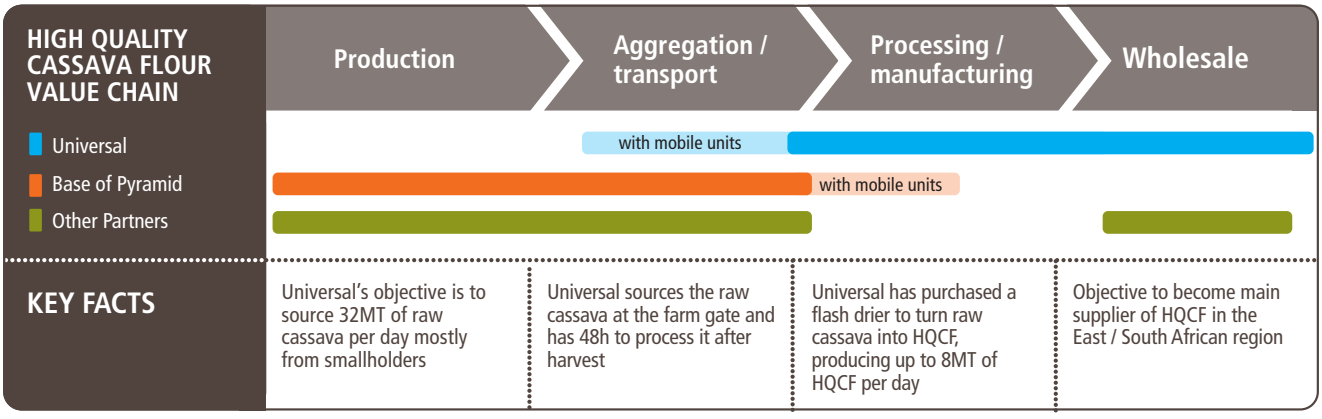
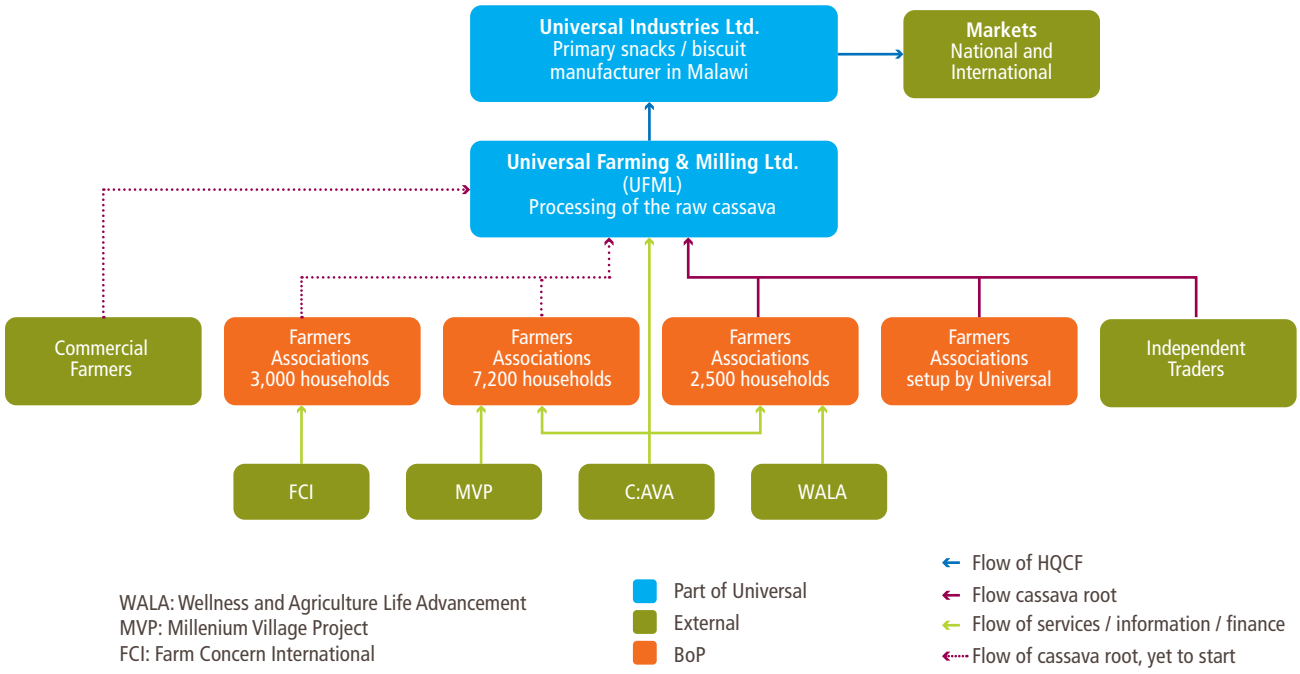


Figure 6: The current HQCF model



3.3 Partnerships

Partnerships play a crucial role in the HQCF model, and Universal has relied on them for technical assistance on cassava farming techniques, and to access networks of smallholder farmer associations. Although partnerships have been key to the model, they have also been a significant challenge as they have not always gone to plan. Universal aims to decrease its reliance on partners and take over their responsibilities, starting by removing the role of the middleman and taking a more leading role in the relationship with the smallholder farmers.

Table 3: Types of partnerships

Partner	Type of organisation	Beginning of partnership	Role
Technical assistance			
C:AVA	Project funded by the Gates Foundation	Late 2010	C:AVA played a pivotal role guiding Universal at all stages by funding the flash dryer, assisting in technical backstopping and conducting supply chain analysis.
Ministry of Agriculture Extension	Public services	Early 2011	Provided some level of extension support to the smallholder farmers.
Smallholder farmer associations coordination			
Millennium Village Project (MVP)	Programme funded by the UNDP	Early 2011	Seven clusters of 7,200 households have been set up by the MVP in the Zomba region. MVP has provided basic infrastructure, education and training to the farmers, has set up farming co-operatives and is currently co-ordinating their interaction with the private sector in a fairly top-down manner. The programme is due to end in 2015.
Farm Concern International (FCI)	International NGO. Malawian project funded by the Gates Foundation	Mid-2012	Network of 6,000 farmers, of which around 3,000 are expected to be growing cassava. FCI has set up a 'Commercial Village Model' to organise the farmers in communities of 100-250 smallholders. Universal is already working with FCI's smallholder network for the supply of Irish potatoes.
WALA	USAID funded programme. Market Linkages component delivered by ACDI VOCA	Mid-2010	Set up associations of farmers that organised into marketing groups (80-100 farmers per group, 25 groups in a district) led by Agribusiness Community Agents (ACAs). The ACAs are literate and with a good business sense.

3.4 Margins and pricing

Assumptions

The HQCF model that Universal has developed works on the following assumptions:

- The rate of conversion of raw cassava into HQCF is an optimal 4:1 (4kg of raw cassava are required to produce 1kg of HQCF)
- Universal will be able to sell the HQCF at $0.57 per kg (200MK[12])
- Overheads are 15 per cent of the sale price of HQCF

Given that the average industry gross profit margin is 30 per cent, Universal has estimated that to make the inclusive business model sustainable in the long run, the price of the fresh root cannot be higher than $0.07/kg (25MK). This would allow Universal to make a gross profit margin of 23.8 per cent, as described in Figure 7.

This highlights the importance of a low market price for the raw cassava. If the price increases above $0.07/kg (and if the yield is worse than 4:1), the impact on the gross profit margin can be significant.

The HQCF production targets that Universal had set itself are described in Table 4; these are expected to generate a turnover of over $190,000 in Year 3. Production is expected to be spread out across the year as shown in Figure 8, driven by cassava's harvesting cycle, which tends to be concentrated during the peak months of July and August.

Table 4: *Estimated production of HQCF in Year 1-3*

	Year 1 [2012-2013]	Year 2 [2013-2014]	Year 3 [2014-2015]
Supply of raw cassava per year (MT)	1,210	1,327	1,451
Production of HQCF (MT)	302	331	362
Turnover ($)	159,210	175,131	191,052

[12] Currency: Financial figures that were provided in Malawian Kwacha are expressed in USD, based on an exchange rate of $1 = 350MK as of 20th September 2013

Figure 7: *Targeted production and profit margins in the HQCF model*

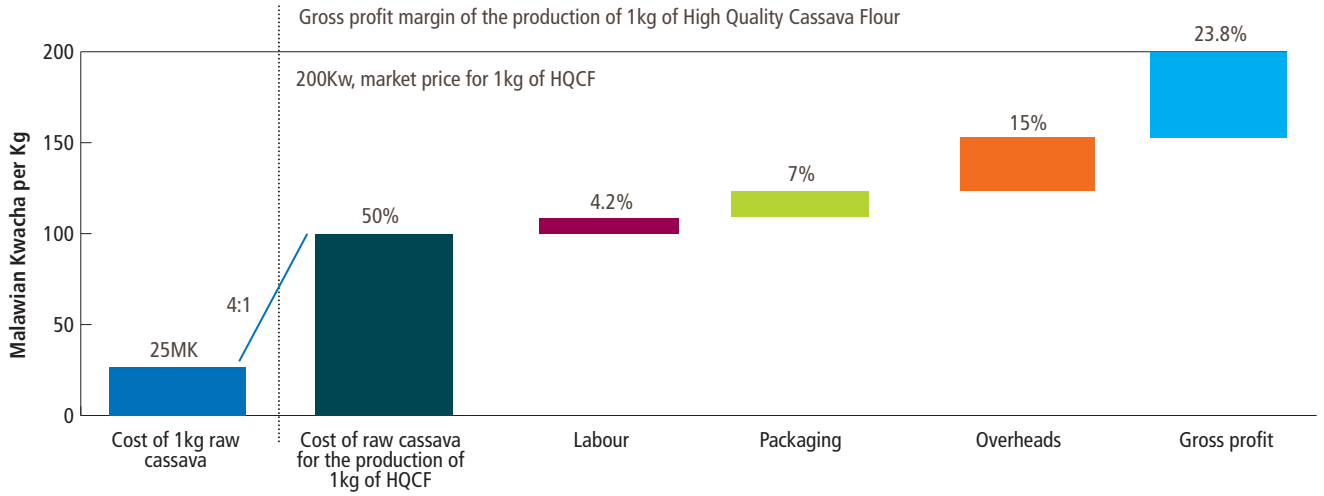
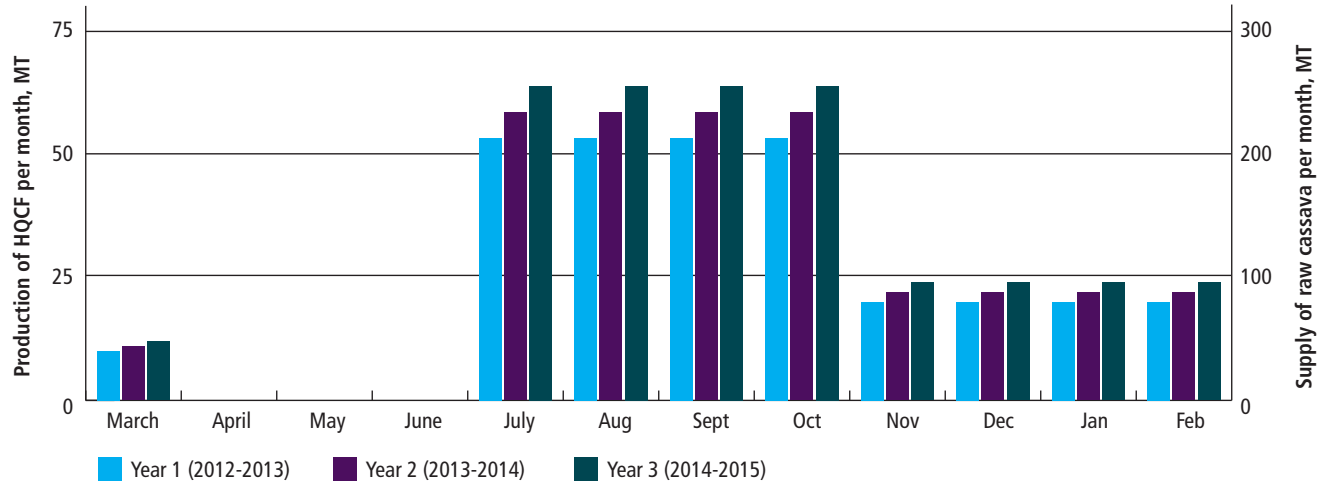


Figure 8: *Estimated monthly production of HQCF in Year 1-3*



3.5 The challenge of volumes and prices

The current market price for raw cassava is $0.1/kg (35MK), which is above the ceiling identified in Universal's HQCF business plan. National levels of production of raw cassava are estimated at around 4 million MT (2010 estimates)[13], of these 189,805MT are produced in the Zomba district[14], which seem well within Universal's targets.

Universal's initial assumption was that if farmers recognised the large potential market and increased regular income, while investing appropriately in scaling up production, it would have been feasible to increase volumes, while decreasing market price. This has not been as simple as first envisaged, and Universal has come across a series of challenges which has made it difficult to increase volumes and decrease market prices (see Table 5).

***Table 5:** The challenges of volume and price*

Issue	Overview
Volume challenge	
Planting material	Smallholders said the biggest obstacle to producing higher volumes of cassava was the lack of planting material, or the availability of finance to purchase the cuttings.
Competition – use of cassava for household consumption	In case of drought and low production of maize, smallholder farmers are likely to use larger amounts of cassava for their own household consumption, rather than selling it on the market.
Supply chain – smallholder farmers' trust	Impossibility of entering into contract farming agreements, commercial relationships are exclusively based on trust via informal agreements.
Supply chain – commercial farmers' engagement	Difficult to obtain buy in from commercial farmers. The yield and profit margins generated from farming cassava are not high enough.
Ability of partners	Partners have not always been as responsive as Universal hoped, especially in managing the communication with the smallholder farmers.
Price challenge	
Inefficient planting material	The type of cassava is of a variety that offers a low yield and that is particularly disease prone, making its farming inefficiently expensive.
High prices in local markets	Producers are able to sell cassava for higher prices, in smaller volumes at the local markets.
Smallholder farmers lack business education	Smallholder farmers do not fully understand the value of scale and of selling larger amounts of agricultural products, in bulk, for lower prices.

Although Universal liaised with the farmers at the seeding time of their first year of operations, production did not increase as hoped. Universal's initial expectations were that NGOs were going to play a more proactive role in stimulating production and managing the relationship with the smallholders. From the field work conducted at the Millennium Village however, it emerged that out of five farmers interviewed, only one had intensified production at all. On several occasions both farmers and the NGOs expressed surprise at the volumes that Universal was hoping to source. In general, the smallholder farmers interviewed during our field work shared concerns at their current ability to aggregate more than one MT of cassava given their current levels of production.

Since contract farming is not currently an option in the Malawian smallholder context (see Box 4), buyer-seller arrangements are exclusively based on trust and can only be made informally. During its first year of operations Universal did not fully understand the amount of resources that had to be dedicated to building the trust with the farmers in order to guarantee the increase in production required. Pricing also proved to be a hurdle. With cassava prices inflated by local markets, smallholder farmers did not see the value in selling cassava for a lower price, albeit in larger volumes, to Universal.

Contract farming

What is contract farming? "An agreement between farmers and processing and/or marketing firms for the supply and production of agricultural products under forward arrangements, frequently under pre-determined prices"[15]

Why is contract farming not used by smallholder farmers in Malawi?

Mistrust: *"There is a widespread perception amongst farmers and other stakeholders that contract-buyers take advantage of farmers' weak position by paying low prices due to information asymmetries"*[16]

Contract compliance: All stakeholders interviewed identified as the main obstacle to contract farming the challenges in enforcing contracts in Malawi, as there currently isn't a framework for binding contractual agreements in the country.

"Contract-buyers are very frustrated with free-riding third-party buyers, but see that farmer contracts cannot practically be enforced through legal or regulatory mechanisms"[17]

Box 4

[13] Malawi National Statistics Office, also reported in Imani Development's "Cassava Value Chain Analysis and Smallholder Engagement Framework", October 2012

[14] ibid

[15] "Contract farming, partnerships for growth', Eaton and Shepherd, 2001.

[16] "Contract farming in Malawi, for the Ministry of Agriculture and Food Security". World Bank, J Agar and P Chiligo, 2008.

[17] ibid

Perspective from a commercial farmer

Robin Saunders is a Malawian coffee growing expert, Managing Director of Wallace Estates, a large commercial farm in Zomba District.

As well as several other commercial farmers, Robin was approached by Universal in early 2011 and signed a contract for the supply of cassava at an agreed price, to which he dedicated 5 hectares of his estate's land during the 2011 planting season. The cuttings for the cassava were supplied by C:AVA, who then provided extension support on cassava farming techniques. Robin recalls that commercial returns in the first year were disappointing in terms of production yields, but especially in terms of profit. The 5 hectares fully dedicated to cassava yielded 100MT of output, which at the price sold to Universal only profited $143 (50,000MK). Compared to the $88,000 (33,000,000MK) that Wallace Estates profited from 30 hectares of coffee, to Robin the HQCF model in its current form it is not commercially viable because of four reasons: yield, extension advice, pricing strategy and the level of investment.

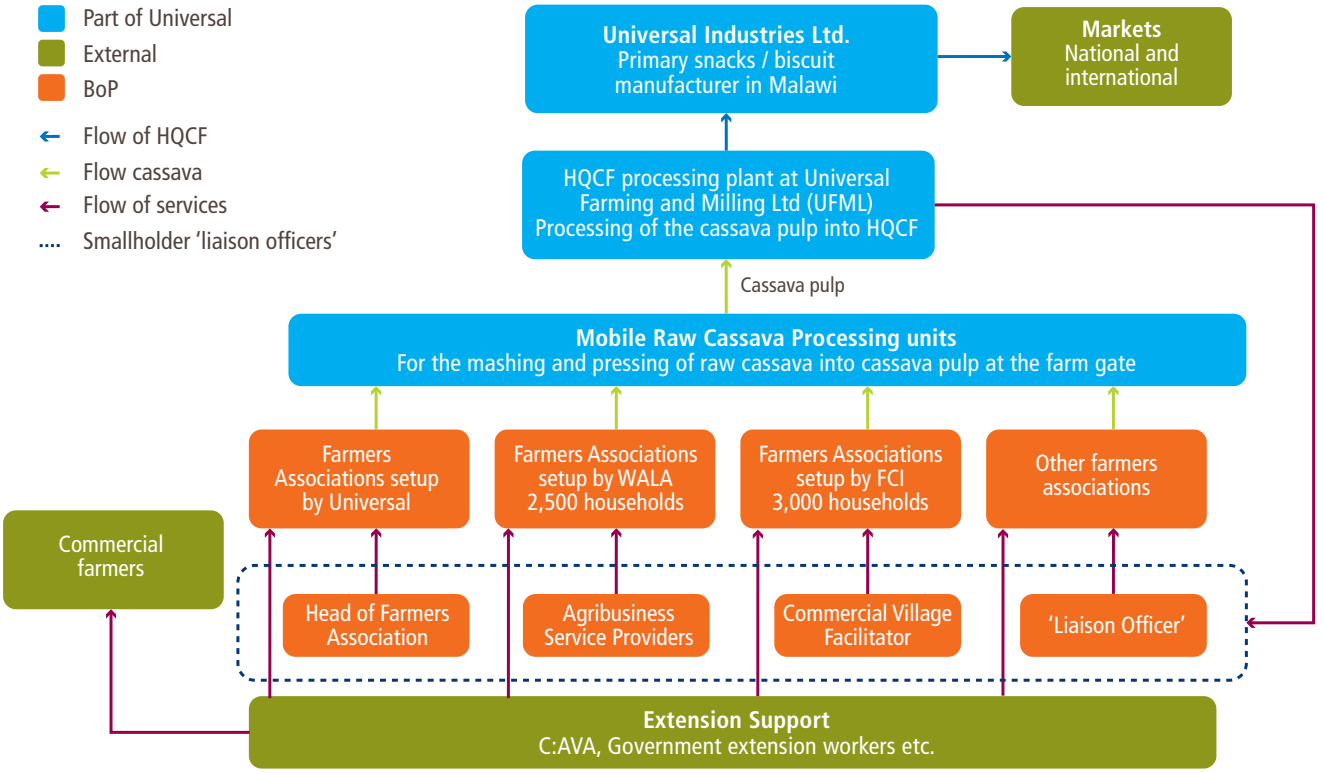
Box 5

3.6 Evolution of the business model

The business model that Universal is working towards for HQCF described in Figure 9. The value chain in place at the moment is therefore going through a process of transformation including:

- **Removing the NGO link, educating and empowering farmers:** This is the truly sustainable element of the whole model. Universal aims to remove the middleman role of the NGO by setting up 'liaison officers' at the head of farming associations. These will be educated, entrepreneurial smallholder farmers that will manage the relationship between the farming associations and private sector buyers.
- **No independent traders:** Ending the reliance on independent traders because of their high prices.
- **Introduction of mobile processing units:** Mobile processing are trucks mounted with mashers and hydraulic presses that turn the raw, peeled cassava into 'wet cassava cake' straight from the farm gate, simplifying the manufacturing process for HQCF. These units reduce the costs of processing and transport, decrease processing time and introduce a value-addition activity for the farmers, as Universal would pay a premium for the peeled cassava.

Figure 9: The future HQCF model



Universal is implementing a number of targeted interventions towards implementing the mature model described below:

- **Building trust among producers to stimulate supply:** Universal is setting up a radio-based media campaign to stimulate the production of cassava for the 2013 seeding season. It also plans to purchase the raw cassava in high volumes from the 2013 harvesting season to build trust among the farmers that Universal is a reliable buyer, as well as to organise stakeholder meetings with cassava growers and government representatives to share Universal's strategy, plan and objectives (first one scheduled for 30 of September 2013).
- **Influencing prices:** Decreasing cassava's purchasing prices from the 2013 harvesting season.
- **Extension support and training:** Universal plans to extended services to all smallholder producers. Extension support will include training on best farming practices and agri-techniques, and business training will educate smallholders on economies of scale and gross profit margins.
- **Planting material:** At the time of going to press, Universal managed to obtain a grant of $50,000 from C:AVA for the provision of cassava cuttings to smallholder farmers at MVP, FCI and for two commercial famers. These cuttings of cassava are of a variety that is disease-resistant. Once these are planted, it will allow these farmers to produce 900MT extra of raw cassava.

  In addition, Universal has decided to dedicate 50 hectares of land at its Njuli estate as an extra source of raw cassava (it is estimated that the land can provide up to 1,500MT of fresh root) and for the production of disease-free, high yield cuttings. This will allow Universal to supply more cuttings to farmers in the coming years, which are estimated to be enough for the planting of up to 250 hectares of cassava.

Reaching the mature business model will require a number of investments, as outlined in Table 6.

Table 6: Investment requirements in the model

Investment area	Detail	Funding origin
People	• Hiring an out-grower manager to manage the relationship with the farmers during the seeding season and stimulating production • Extension support throughout the year on cassava farming practices • Providing business training to farmers • Managing the logistics during aggregation	External – Donor
Equipment	• Mobile processing units • Equipment for peeling the cassava	Internal
Planting material	• A new variety of planting material that is disease-resistant and that offers a higher yield	External – C:AVA Internal

3.7 Key success factors and business risks

The key to the success of the business for Universal is to successfully engage with the smallholder farmers in order to set up a strong and reliable supply chain. Without this, Universal will struggle to source the right amounts of raw cassava at the right time and for the price needed for commercial viability.

The key risks facing Universal come from the unstable macroeconomic environment and the effect that a further devaluation could have on the market price of raw cassava and on the stability of Universal as a business. Droughts can also be a risk for Universal as they would have a negative impact on both the price and the availability of raw cassava. Since the market price of HQCF is dependent on the price of wheat flour, excessive fluctuations in the price of wheat could also have a negative effect on the sustainability of the model.

4 Commercial results

> **Delays due to the delivery of the flash dryer mean that Universal is on track to achieving year 1 targets in year 2 of production.**

> **Gross profit margins in year 2 are lower than expected, at only 3.8%, because of high market prices and low cassava-to-HQCF yield.**

> **With a further investment of £30,000 expected to fund the purchase of mobile production units, aggregation and processing of cassava will become cheaper and more efficient and yield is likely to increase.**

Investment to date

The importance of setting up a scalable business model is highlighted by the investment levels described below. To date, Universal has invested $161,400 to set up the HQCF inclusive business, and is planning on investing $30,000 more out of internally raised capital (see Table 7). Given the forecasted levels of turnover, to make the business model successful in the long run and to generate enough gross profits to guarantee a return on the investment, scaling and increasing production targets will be crucial.

Table 7: *Current and future investments in the inclusive business*

Origin of financing	Amount	Purchase
External, interest-free loan from C:AVA	$67,000	Flash dryer
External, grant from C:AVA	$25,000	Three block factory building, intangible assets (regulatory compliance requirement), other assets such as motor vehicles (for distribution), computers and pre-production inventory (cost of raw materials and packaging materials)
External, grant from C:AVA	$50,000	Cassava cuttings for MVP and FCI smallholder farmers, and two commercial farmers
Commercial debt	$69,400	
Future investment		
Internally raised capital	$30,000	Purchase of Mobile processing units
Total	**$241,400**	

Current results

When Universal first designed the business model, the initial objective was to operate the flash dryer at full capacity from the very beginning, aiming to source up to 4,500MT of raw cassava per year (32MT per day during the peak production months, compared to the current 6MT) in the first two years of production, and doubling this in 2015 and 2016 via the purchase of a second dryer. The reality of the challenging smallholder context meant that Universal had to review its expectations and re-draft the more realistic business model, presented in this report.

The first year of HQCF production is viewed as an investment year, during which Universal is expected to break into the market, establish trust and relationships with farmers, and get production of the HQCF off the ground. Universal understands that the model in its current form is not commercially viable, due to the high prices of the raw cassava. In order to reach commercial viability, while production volumes increase, prices must fall. The immediate goal is to therefore cement the supply chain and strengthen the relationships with the NGOs and the farmers.

Production volumes

Latest progress reports suggest that Universal is on track to achieving its first year targets of 300MT of HQCF in Year 2 of production. The delay is attributable mostly to the late delivery of the flash dryer.

Supplies, however, have come in very small amounts from the sources initially planned, which were the NGO-led farming associations with which Universal had partnered at seeding time. During the first month of HQCF production, only a total of 5MT came from WALA and 1MT from MVP farmers. The rest of the raw cassava came from smallholder farmers in the Thyolo District, with no affiliation to any NGO. These were connections that Universal had made without the help of any middleman NGO.

Prices and profit margins

Gross profit margins in Year 2 are estimated to be lower than expected at only 3.8 per cent, compared with the 23.6 per cent in the business model required for commercial viability (see Figure 10) because of high market prices and a low cassava-to-HQCF yield. Market prices were $0.1 per kg (35MK/kg) during July and August 2013, and decreased to $0.09 per kg (30MK/kg) in September. Poor planting materials and cassava farming techniques mean that the productivity of the cassava root for the production of HQCF is lower than hoped; almost 5kg of raw cassava are currently required for the production of 1kg of HQCF, against the optimal 4kg.

Future targets

Universal is optimistic about the future of its HQCF inclusive business venture. A further investment of $30,000 is planned for the purchase of mobile production units that will make aggregation and processing of raw cassava cheaper and more efficient.

- Engineers working on the efficiency of the flash dryer in November 2013 managed to improve the efficiency of production of the HQCF bringing the yield down to 4.25:1. This is expected to decrease even further once farmers start to grow the new type of cassava and improve their farming techniques.
- With a more proactive sensitisation campaign at seeding time and consequent increased production, prices are likely to drop to $0.07 (25MK/kg) over the coming years.
- Latest developments at the time of going to press suggest that Universal is likely to greatly exceed its year 3 estimates of HQCF production of 360MT. HQCF production estimates for 2014 /2015 have now been revised to 1,000MT.
- First small export order will be despatched to Zambia at the end of 2013.

***Figure 10**: Current production and profit margins of the HQCF model*

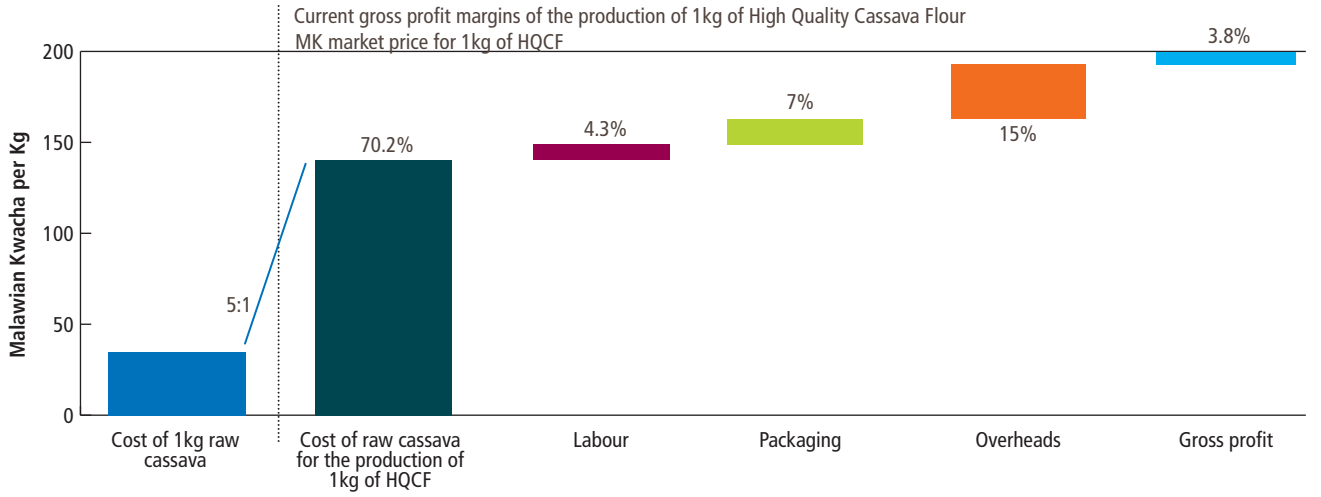


***Table 8:** Summary of commercial objectives and impacts*

Commercial returns	Financial	Strategic
Company objective	Production of around 360MT of HQCF in Year 3. Doubling this over the following years through the purchase of a second flash dryer	Becoming the main producer of HQCF in the regional market Removing reliance to the middleman to manage the relationship with the smallholder farmers
Progress to date	Production of HQCF started in July 2013. Volumes targets likely to be achieved Price of raw cassava of $0.09-0.1 per kg (30-35MK/kg) is still too high	No exports yet as HQCF production has only just begun First farming associations set up without the help of NGOs
Trajectory going forward	Optimistic. Targets for Year 1 of 300MT of HQCF should be achieved in Year 2 (2013-14) Prices to slowly decrease to $0.07 (25MK/kg) Investing in second flash dryer in Year 5 to double production capacity	Large potential in regional market. Finding buyers for HQCF does not seem a problem WALA, FCI and MVP are all expected to cease their operations by 2015
Key challenges	High prices of raw cassava Building trust with farmers to increase production Mitigating the risk that droughts can have on cassava supply	Supply chain needs to mature in order to stabilise levels of production Low prices of wheat flour driving market price of HQCF down

5 Development impact

> **Direct benefits to farmers include increased and more secure incomes from selling cassava to Universal, new market linkages as well as business and entrepreneurial skills. Cassava generates higher revenue per acre than other traditional crops.**

> **Given that cassava is a 'women crop', Universal estimates that 70 per cent of the BoP beneficiaries of its inclusive model will be women.**

> **Universal's venture could also create improved vertical linkages where BoP farmers can develop into entrepreneurs and provide a model for smallholder engagement that could be replicated more widely.**

"The MVP farmers are dynamic. If they see a market opportunity then they do chase it and start producing. It's all about offering them the right incentives and price."

Rodrick Chirambo, Cooperatives coordinator, Mwandama Millennium Village Project

5.1 Direct impact at the base of the pyramid

Who is benefitting?

It is common agreement among all interviewees that Malawian smallholder farmers are considered to live at the BoP because the majority live on less than $1 a day, are not linked to formal value chains, have high levels of illiteracy and that most of the households are led by women.

Nevertheless, there are a range of poverty levels and livelihoods within the farmers reached by Universal, and the Progress out of Poverty Index[18] strongly reflects this. Living standards are higher for farmers who have access to some healthcare, live in marginally better housing units with iron sheet roofs, have access to better lighting fuel and to regular electrical supplies. Poorer smallholders on the other hand have much higher levels of illiteracy and do not have access to infrastructure of the same quality.

Unsurprisingly, it is these differences in livelihoods that influence their perception of what opportunity is a 'game changer' for their future. During the research for this report, wealthier and more educated farmers were more inquisitive, raised doubts about the profitability of cassava, and made it clear that it would be difficult for cassava to become their main cash crop.

For poorer farmers on the other hand, cassava had the potential for significant impacts on their livelihood, as it could become their main source of income.

"Farming cassava and developing a relationship with Universal could really be something for our future and could make us significantly richer."

Mace Kanginga, Mandauala Village (affiliated to Farm Concern International)

Insights from smallholder farmers

Cassava is the main crop that the farmers of Mandauala produce. Once the root is harvested, they dry it in the sun and then grind it into flour (also called makaka) that they mostly use for their own consumption and then sell in small amounts at the local markets.

When asked if they would be willing to plant more cassava, Mace Kanginga, a 25 year old mother of two children took the lead. "Of course we would, we would plant cassava as far as you can see," gesturing with her hand at the fields surrounding us, "all we need is the guarantee from Universal that they would buy from us next year, at a fair price." The farmers then move on to the appeal that cassava has to them; it is easy to grow, requires limited labour and does not need fertiliser. They welcome the idea of selling all of the crops in one go as it would allow them to do something meaningful with the money earned. Their main concern however is the lack of cassava cuttings, and the fact that the planting material that they have is old and diseased. But their hopes are high, that cassava and Universal could be life changing for them.

The farmers of Mandauala village

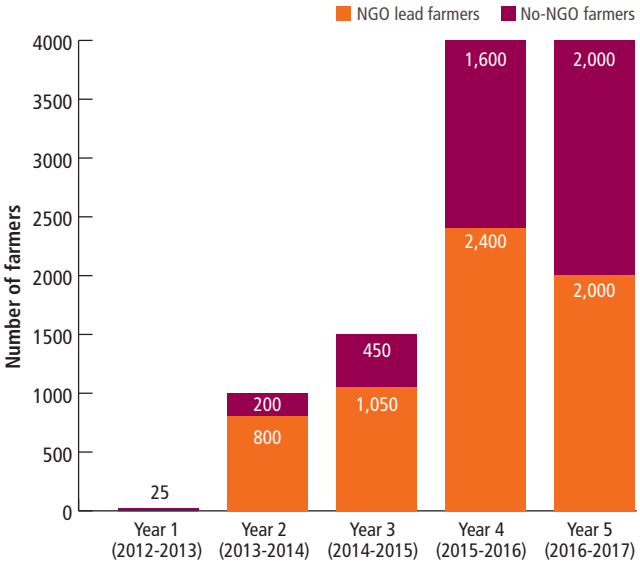
Box 6

[18] The Progress out of Poverty Index® (PPI®) is a poverty measurement tool for organizations and businesses with a mission to serve the poor. Source: Progress out of Poverty, accessed 2013, http://www.progressoutofpoverty.org/

How many people are benefitting?

Universal only started to regularly source raw cassava at the time this study was conducted, so there are no actual figures beyond Year 1. The number of farmers reached is however expected to grow to 4,000 individuals by Year 4, half of which will be from farming associations set up by NGOs (such as WALA, FCI and MVP), and half from associations set up directly by Universal. Figure 11 shows numbers of farmers reached for Year 1, as well as projections up to Year 4.

Figure 11: Number of smallholder farmers reached



How are farmers benefitting?

There are a number of direct benefits to farmers at the BoP, ranging from income to increased opportunities for women.

Income

Table 9: Smallholder revenue yields[19]

Crop	Yield per acre (MT)	Average price per kg	Revenue per acre
Maize (Local breed)	1.75	$0.2 (70MK)	$350 (122,500 MK)
Maize (Hybrid)	2.5	$0.2 (70MK)	$500 (175,000 MK)
Pigeon peas	2	$0.26 (90 MK)	$514 (180,000 MK)
Cassava	14	$0.07 (25MK)[20]	$1,000 (350,000MK)

- **Income and margins:** Compared to other crops farmed by smallholders such as pigeon peas and maize, cassava brings much higher revenue per acre (see Table 9). In addition, costs of farming cassava are significantly lower than for other crops, making margins the highest.[21]
- **Security:** Universal would be a reliable buyer, guaranteeing a consistent revenue streams to the farmers.
- **Choices and resilience:** Cassava is a crop that can grow in harsh climates without much water. Planting more cassava would allow smallholder farmers to diversify their crop-base and have a reliable revenue stream in case of droughts.

Market linkages

Being involved in the HQCF value chain is a breakthrough opportunity for BoP farmers to be connected to formal markets. This would lead to benefits such as improved access to markets, relationships with private sector buyers and new business skills.

Developing entrepreneurs

Universal is taking over existing farming association structures set up by NGOs and empowering farmers by removing the external intermediary link. BoP farmers from within the farmers associations are identified to lead the relationship with the private sector buyer and act as intermediary. These individuals that develop into more commercially minded and entrepreneurial farmers are the true sustainability element of the model.

Gains for women

Women in particular are expected to gain as a consequence of HQCF. More than 90 per cent of all Malawian women work in agriculture and they make up 60 per cent of the total agricultural workforce of Malawi. Since cassava is considered a secondary crop, most decisions surrounding its farming are left to them, and they tend to manage the revenue generated from its sale. Universal estimates that women make up approximately 70 per cent of the main beneficiaries of the HQCF value chain. All NGOs interviewed therefore believe that the growth of cassava has the potential to have a significant, positive impact on women.

[19] Figures provided by Farm Concern International.

[20] This is not the current average price, but the price required by Universal for commercial viability.

[21] One of the MVP farmers interviewed reported to have sold 1,100kg of raw cassava to Universal for total revenue of $114 (40,000MK), only incurring in $20 (7,000MK) of costs.

5.2 Potential for systemic impacts

Is this a one-off initiative that will stand alone or an approach that could influence how the agricultural system works more broadly? It is too soon to say, but the significance of the HQCF model is that it is actors from within the informal agriculture sector that are trying to create a commercial opportunity out of a market in which productivity levels have traditionally been small, outputs is of poor quality and income is low throughout the chain.

Smallholder sourcing arrangements tailored to tobacco and tea do exist in Malawi, but these do not work for non-high value crops for which contract farming in the traditional sense is not appropriate, and informal trading not effective. Better vertical linkages need to therefore be developed, and the key to this could be the model that Universal is implementing. In this model, BoP farmers with the right business mind-set are identified and grown into entrepreneurs, and given the role to manage the relationship between the farming associations and the private sector buyers. Universal is taking the lead in looking after the development of the smallholders and building their capacity. If Universal's approach is successful, it has the potential to be replicated across other value chains, leading to systemic impact.

If the Universal model works, it is likely to demonstrate what approach works best and what level of investment and return should be considered. In this sense UIL is pioneering a new smallholder engagement model.

6 Future outlook and lessons learned

6.1 Future outlook and potential for scale

- **Shifting to a model where companies take the lead:** The model that Universal is moving towards is one in which there is more investment by the company, leading to more security and better quality of farmer engagement (see section 3.6). This is in contrast to the traditional farming model in which NGOs play a more central role, or there is reliance on informal traders.
- **BoP vs more entrepreneurial farmers:** Reaching out to poorer smallholders can be an attractive option as they are easier to engage with and tend to be more willing to produce cassava in the volumes that Universal is looking for than other suppliers. On the other hand, trading with these farmers does require more time and investment as they are less educated and have extremely limited experience of being integrated into a formal value chain. Universal needs to find the balance between both of these actors as entrepreneurial farmers are the way to access the BoP.
- **Volumes:** Universal is currently sourcing a very small proportion of the national production of cassava. If it manages to successfully develop the current smallholder engagement model, Universal predicts that there is potential to source up to an annual 6,000MT of cassava within the next three years, reaching a supplier base of up to 20,000 farmers.

6.2 Additionality of BIF support

"The work carried out by BIF has allowed us to save time and money and at least one year worth of work. Thanks to the BIF support we avoided costly mistakes that we would have otherwise made."

Navin Kumar, Universal Operations Director

Universal has identified positive value added in a number of different areas:

- **Provided valuable outsider's insight and fresh perspectives:** BIF support was able to pinpoint challenges in the initial model, draw on other experience, and bring fresh perspectives to smallholder engagement.
- **Smallholder engagement:** BIF support has helped Universal understand the importance of actively engaging with suppliers in a relatively immature sector like cassava production, where significant support and 'handholding' may be required.
- **Reviewing and challenging assumptions:** BIF's M&E process supported Universal in revising the business plan at shorter intervals and adapting it to potential shocks in the market and unforeseen circumstances. This allowed Universal to better understand risks and how to mitigate them.
- **Expert support:** Obtaining buy-in from the board is a long and challenging process. Businesses in a context like Malawi would rarely invest in essential consultancy work, unless they were funded by international donors.
- **Time and money saved:** Thanks to BIF's support Universal was able to avoid making costly mistakes in the implementation of the inclusive business, saving time and money.

6.3 Lessons learned

Universal has learnt many lessons during the HQCF inclusive business journey, with many of these relating to the challenge of selecting the right partners and engaging with the smallholder farmers.

- **Partner engagement:** There is a need for parallel procurement structures and strategies to be put in place, and procurement should not purely depend on NGO led smallholder farmers. Universal learnt the value of investing more time in the procurement process and the need to shift to a model where the company does more and is less reliant on partners. The venture also revealed the importance of carrying out due diligence on the technical skills of the contractors that the partners will engage in the project.
- **Timing of farmer engagement:** Cassava is a seasonal crop planted during the rainy season and takes nine to 12 months to grow. It is critical for Universal to time well when to engage with the farmers, in order to set up successful commercial arrangements and to stimulate production.
- **Education:** Both agricultural and business skills are worthwhile investment to enable more productive price negotiations, formal contract set up and production of higher quality crops.
- **Contracting:** Formalising contracts with smallholder farmers is the way forward in order to decrease risk and build a more reliant supply chain.
- **Partnerships with farmers:** If you do not complete a sale that was agreed then trust can be lost very quickly.
- **Farming techniques:** Fertilisers have the potential to increase cassava yield four-fold and might be a worthwhile investment for the smallholder farmers.
- **Driving supply:** There needs to be more clarity from the earlier stages around who is driving the supply, if it is the NGO, the entrepreneurial farmer or the company itself.

Annex 1: Case study methodology

Overview

The case studies were conducted using both primary and secondary data.

Primary data was collected during discussions with stakeholders and beneficiaries run between the 15th and 26th of July 2013 during a two week field visit in Blantyre and the surrounding areas. Data collection was carried mostly via semi-structured meetings with individuals connected to the HQCF inclusive business. These were: Navin Kumar and his team at UFML, Gitau Mbure at ACDI-VOCA/WALA, Vito Sandifolo at C:AVA, Tymon Mphaka at FCI and Rodrick Chirambo at MVP.

In addition to the semi-structured interviews, two focus groups were carried out with smallholder farmers at both MVP's Mwandama village and FCI's Mandauala.

The focus group at the FCI village was run informally in the middle of a field, with farmers joining spontaneously and the FCI office accountant helping with the translation, while Tymon Mphaka was facilitating the interaction with the farmers. The focus group was attended by around 15 individuals, 80 per cent of which were women. Discussions covered the farmers' relationship with Universal, their willingness to farm cassava, understanding the challenges and their hopes for the future and what impact cassava could have for their livelihoods. The meeting lasted for half an hour.

The meeting at the MVP village was coordinated by MVP and run in their main office, with translation from English to Chichewa and vice versa provided by the local MVP staff, who also facilitated the meeting. Attended by around 12 individuals, of which only one was female, the farmers had been invited directly by the Cooperative's Coordinator. Discussions covered their relationship with Universal and how this had evolved over time, their interest in growing cassava, what they see the main obstacles being and what impact cassava could have for their livelihoods. The meeting lasted for an hour.

Secondary data included BIF's M&E reports (baseline reports, progress reports, progress updates, country manager wrap-ups and service provider feedback reports), project deliverables and external sources such as academic papers, the World Bank database, C:AVA's website. This desk research was conducted before, during and after the field visit (in July, August and September 2013).

Strengths of this case study

Strengths are without a doubt the help and support that the author has been given by Imani Development and Universal during his visit to Malawi. Universal has been incredibly helpful and collaborative throughout the study, by offering their availability for interviews and sharing data and information for our analysis.

Other strengths have been the opportunity to talk first hand to a variety of NGOs and market players, while also speaking first hand to a range of smallholder farmers.

This case study has not exclusively been the consequence of a two week in-country study, but the fruit of three years of data collection and analysis, without which it would have not been of this standard.

Limitations of this case study

The main limitation to this case study is the fact that the study was conducted just when the production of HQCF had started. We have therefore not been able to interview smallholder farmers who were already benefitting from the intensive production of HQCF. Evidence on the impact that HQCF has had on the BoP is therefore limited.

We have also not been able to speak to any smallholder farmers from the associations that Universal has set up individually. Their perspective could have potentially have added a new layer to our understanding of the impact that HQCF can potentially have on the BoP.

- Due to the limited depths and scope of data collection undertaken for this report, the nature of BoP level data is indicative
- This case study is based on field work and analysis as of mid 2013. Although discussion of specific details has continued with key stakeholders in the process of finalising this report for publication in December 2013, it should be seen as a snapshot of a rapidly-evolving business taken in mid 2013.

Partner profiles

Business Innovation Facility

The Business Innovation Facility supports companies as they develop and implement inclusive businesses. Inclusive business is profitable, core business activity that also expands opportunities for people at the base of the economic pyramid: either as producers, suppliers, employees, distributors, or as consumers of affordable goods and services.

The Business Innovation Facility is a pilot project funded by the UK Department for International Development (DFID). It is managed for DFID by PricewaterhouseCoopers LLP in alliance with the International Business Leaders Forum and Accenture Development Partnerships. It works in collaboration with Imani Development, Intellecap, Renaissance Consultants Ltd, The Convention on Business Integrity and Challenges Consulting.

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For further information and to join the discussion on inclusive business, go to:
Practitioner Hub on Inclusive Business: www.businessinnovationfacility.org

Business Innovation Facility

Institute for Development Studies (IDS)

The Institute of Development Studies (IDS) is a leading global charity for research, teaching and information on international development. Our vision is a world in which poverty does not exist, social justice prevails and economic growth is focused on improving human wellbeing. We believe that research knowledge can drive the change that must happen in order for this vision to be realised. IDS hosts six dynamic research teams, several popular postgraduate courses, and a family of world-class knowledge services. These three spheres are integrated in a unique combination – as a development knowledge hub, IDS is connected into and is a convenor of networks throughout the world.

The Impact and Learning Team (ILT) conducts action research to generate new insights into the ways that evidence is used in decision making in policy and practice, including the generation of multiple types of evidence and knowledge (from evaluation, monitoring, and research), and the behaviours and capabilities of decision makers in using evidence to contribute to organisational, programme and policy changes. The ILT is situated under the Knowledge Services department of IDS, and works collaboratively with the six research teams in the institute as well as external partners.

For more information about the Impact and Learning Team, please visit:
http://www.ids.ac.uk/team/impact-and-learning-team

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IDS Institute of Development Studies

Oxford University, Saïd Business School

Saïd Business School is one of the world's leading and most entrepreneurial business schools. An integral part of the University of Oxford, the School embodies the academic rigour and forward thinking that has made Oxford a world leader in education. The School is dedicated to developing a new generation of business leaders and entrepreneurs and conducting research not only into the nature of business, but the connections between business and the wider world.

For further information please visit: http://www.sbs.ox.ac.uk/

Skoll Centre for Social Entrepreneurship

The Skoll Centre is a leading academic entity for the advancement of social entrepreneurship worldwide that is housed in Oxford University's Saïd Business School. The Centre fosters approaches to market-based social transformation through education, research, and collaboration among business, policy, academic and social leaders

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About this series of case studies

The definition of inclusive business is fairly well known by now – profitable, core business activity that also expands opportunities for people at the base of the economical pyramid (BoP). But what does it look like in practice? That is a harder question to answer. Experience is diverse, much of it early stage, and published reports often err on the side of 'cuddly', not forensic.

This report is one of a series of 'deep dive' case studies that seeks to understand inclusive business in practice. The series explores contrasting inclusive businesses, all of which have been supported by the Business Innovation Facility (BIF). Support from BIF is not cash, but technical input to help overcome challenges, seize momentum, and build a business model that will take the inclusive business to scale and sustainability. The partnership with BIF is, thus, very focused on the practicalities of business models and identifying key milestones in an inclusive business journey.

Over the past three and a half years, BIF has worked with almost 100 companies in five countries. BIF-supported businesses offer rich lessons about the evolution and impact of inclusive business, ranging from working with smallholder mango farmers in Malawi to rural energy solutions in India. Some of this is captured in the monitoring and evaluation (M&E) system. However, the system was designed to be applicable to all projects, not necessarily to capture the richness of the most interesting.

In order to add a deeper understanding of BIF supported inclusive business, BIF, in partnership with the Institute of Development Studies (IDS) of Sussex University and Saïd Business School (SBS) of Oxford University, has generated a set of case studies of inclusive business.

Following a joint framework developed by BIF and IDS, these reports explore what counts as success and what factors have created it. They assess the internal and external context of a company's business model, the 'nuts and bolts' of how the model works, actual or likely commercial returns, emerging impacts on bottom of the pyramid beneficiaries, value added from BIF support, key success factors for scale and lessons relevant for other companies.

We hope that the reports will provide inclusive business practitioners with knowledge and insights on how companies are progressing on their inclusive business journeys – each one distinctive, yet each discovering challenges and solutions that resonate with others.

Caroline Ashley and **Carolin Schramm**, BIF, **Elise Wach**, IDS and **Pamela Hartigan**, SBS

The full series of case studies:

> ACI Agribusiness: Designing and testing an integrated contract farming model in Bangladesh
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> Commercialising cassava: New opportunities for Universal Industries and Malawian smallholders
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> iSchool: Transformative learning in the Zambian classroom
> MEGA: A commercial approach to off-grid power in rural Malawi
> The JITA sales network: An inclusive business on the rise

To view all case studies, go to Practitioner Hub on Inclusive Business:
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The series was coordinated by Carolin Schramm, and edited by Caroline Ashley. The methodology was developed and shared with authors in collaboration with Noshua Watson and Elise Wach of the Institute of Development Studies. Editing was done by members of the BIF team and by John Paul, independent inclusive business consultant. The series Production Manager was Clare Convey, and design was done by Caroline Holmqvist.

We are grateful to the authors, contributors and companies who have provided the images used within these case studies. Images cannot be reproduced without their permission.

We welcome feedback on our publications – please contact us at enquiries@businessinnovationfacility.org