TRAINING MANUAL
Seed Business Management

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Rice SEED Sector Development

ISSD Myanmar

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For a world without hunger

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Keywords: Seed business management, seed business model canvas, seed producers

Abstract

This manual has been developed in the context of the Rice Seed Sector Development Project (RSSD project) in the Ayeyarwady Delta in Myanmar (2017–2020) and the Integrated Seed Sector Development in Myanmar project (ISSD Myanmar) in the Dry Zone in Myanmar (2017–2021). Both projects have components focussing on supporting seed business development. This manual aims to support development partners and professionals to train and coach farmer seed producers and seed companies in managing their seed production and marketing efforts as a sustainable business. After introducing adult learning principles and steps in curriculum design, the manual elaborates training sessions according to different building blocks of a seed business model canvas. In separate sections key components of the business management plan are elaborated: (1) a long-term vision supported with virtues and vitals; (2) a medium-term goal supported with marketing, production and financial strategies built on resources; (3) and short-term operational tactics and activities that revolve around time and money. Each section provides key messages, learning objectives, explanations on theoretical concepts and applications through exercises. The RSSD project is coordinated by Welthungerhilfe (WHH) in partnership with Wageningen Centre for Development Innovation (WCDI), Myanmar Rice Federation (MRF), Resilience B.V. and Mukushi Seeds; and supported by the Livelihoods and Food Security Trust Fund (LIFT) in Myanmar. ISSD Myanmar is coordinated by the Wageningen Centre for Development Innovation (WCDI) in partnership with the Ministry of Agriculture, Livestock and Irrigation (MOALI), Welthungerhilfe (WHH) and Resilience B.V.; and supported by the Ministry of Foreign Affairs, The Netherlands.

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ABBREVIATIONS

BMC	Business Model Canvas
BS	Breeder Seed
CS	Certified Seed
DAR	Department of Agricultural Research
DOA	Department of Agriculture
EGS	Early Generation Seed
FS	Foundation Seed
KPI	Key Performance Indicator
LIFT	Livelihoods and Food Security Trust Fund
MRF	Myanmar Rice Federation
QMS	Quality Management System
RS	Registered Seed
RSSD	Rice Seed Sector Development
ToT	Training of Trainers
VMS	Value Management System
WCDI	Wageningen Centre for Development Innovation
WHH	Welthungerhilfe

1 INTRODUCTION

WHY THIS MANUAL?

Many projects in Asia and Africa are supporting farmers in seed production. These projects often focus on building capacities for producing high-quality seed, concentrating on pre-harvest agronomic practices and the efficient organization of farmers for seed production into seed producer groups. In many cases focus on the management aspect for running seed production, and marketing as a sustainable and profitable business is lacking. Also, private small and medium seed enterprises in developing countries often lack expertise and skills in the business management aspects of running their enterprise. A viable business model – a rationale of how to create, deliver and capture value - is essential for each business to survive. Basic knowledge on business model development and looking at how seed production and marketing can be approached as a viable business, will make intervention efforts with seed producers more sustainable and commercially viable.

In this manual we look at seed production and marketing from a business perspective, taking into consideration that successful seed entrepreneurs need to be: (1) technically well-equipped to produce quality seed; (2) well-managed as an operational business; (3) market-oriented to produce a product with high demand; and (4) strategically linked to other value chain actors. The current manual provides theoretical inputs and practical examples for the development of interactive and experience-based training on how to develop a seed business model.

HOW HAS IT BEEN DEVELOPED?

This manual has been developed based on experience from Mukushi Seeds, Wageningen Centre for Development Innovation (WCDI) of Wageningen University & Research, and Welthungerhilfe (WHH), in supporting seed entrepreneurs in Asia and Africa on strengthening their capacities on seed business management over the past ten years. During this period training materials have been developed, tested, and adapted to specific contexts and training needs.

From 5 to 11 June 2018, the Rice Seed Sector Development Project (RSSD project), as coordinated by WHH, in partnership with WCDI and Mukushi Seeds organized a training for development partners on seed business management in the Ayeyarwady Delta. The purpose of the Training of Trainers (ToT) was to strengthen the capacities of these professionals to better support farmer seed producers in their projects by improving their seed business performance. Another training, organized from 25 to 28 September 2018 trained rice seed companies in seed business management. ISSD Myanmar project in partnership with WCDI, Mukushi Seeds and WHH have conducted a series of similar trainings with seed producers in the Dry Zone of Myanmar (i.e. Mandalay region, Sagaing region) in 2018. We gathered the materials of these trainings in this manual. Several colleagues reviewed and further improved the manual.

FOR WHOM IS THIS MANUAL?

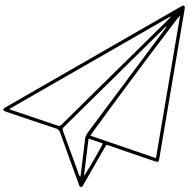
This manual has been designed for professionals with an interest in promoting the business orientation of seed producers in developing countries. These seed producers may be operating at different scales, including single farmer seed producers, farmer groups, and local seed businesses as well as seed companies. At all these levels several key concepts apply when going from a supply-driven to a demand-driven approach of seed production and marketing, and when developing a business model that supports the generation of profitable income for a seed business to sustain in the long-term. This manual is self-explanatory; trainers with a basic background in seed production and business will be able to use it to train seed producers in their business orientation.

HOW IS IT ORGANIZED?

The manual is composed of several chapters. The manual begins with an introduction on the background and principles of adult learning, and introduces the steps in the development of a course curriculum for adult learners. The next chapters are training sessions for seed entrepreneurs. We start by introducing the concept of seed business and factors for success in seed business. Subsequently, the manual guides trainers through the fundamental building blocks of a seed business and does so using the business model canvas (BMC). The BMC has been developed by Osterwalder and Pigneur (2013)[1] and is a simple but strategic management tool that helps to design and describe a business model. It elaborates the different components of the business but also provides a bird's eye overview showing the connections between the different important business components. We adapted the BMC to the context of seed business, resulting in a specific seed BMC. We elaborate each building block of the seed BMC in a separate session.

For each session, we first present the key messages and learning objectives. Next, we provide an explanation on the key theoretical concepts for the topic, with boxes, figures, and tables for further clarification. In most cases a session includes an application, i.e. an exercise to apply the theory in practice. We guide trainers with instructions on how to facilitate the exercise.

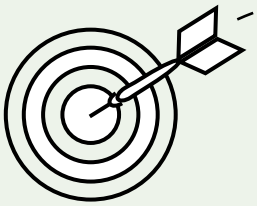
[1] Osterwalder, A. and Y. Pigneur. 2013. Business Model Generation. Hoboken, NJ: Wiley. https://docs.google.com/file/d/0B4E64nqKSeljZWtBZnpraGtqS0k/view?resourcekey=0-CJwqi3OuA4eKFjg9l82yjQ



Key messages

- *To create interest in a training, it is important to make adult learners aware of their knowledge gap (consciously incompetent).*
- *Contextualising new knowledge allows adult learners to see its relevance in relation to their work, get them engaged and stimulate knowledge sharing among peers.*
- *Inclusion of practical exercises in trainings for adults brings them to the final stage of the learning cycle (active experimentation) and makes them consciously competent.*

2 ADULT LEARNING PRINCIPLES



Learning objectives

After the session participants will be able to:

- *understand the basic principles of learning and adult learning;*
- *design and develop an effective training programme for a specific target audience.*

Explanation

ADULT LEARNING PRINCIPLES

Training adults is different from teaching young students. While students may be satisfied with passively receiving new knowledge, adults are not empty baskets that need to be filled. The key element in adult learning is building upon the experience they already have. Based on previous experience, adults deliberatively choose what and how to learn, as well as when to do so. They have specific needs and clear expectations, and generally like interaction and debate during a training. Facilitators must be aware of those issues (Gordijn et al., 2018)[2]. According to adult learning principles, adults:

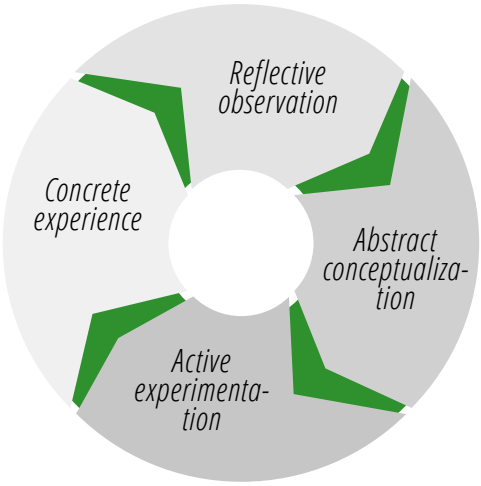
- learn when issues are relevant to their work/life;
- learn when they are internally motivated to do so;
- learn by doing;
- learn on a problem-solving base not on a content-base;
- build on their own knowledge and experience;
- want to share their knowledge and experience; and
- learn best informally.

Two theories provide insight into the learning process of adults: Kolb's experiential learning cycle (Kolb, 1984; Morris, 2019)[3,4], and the conscious-competence learning model of Burch (1970)[5]. We explain both theories below.

KOLB'S EXPERIENTIAL LEARNING CYCLE

The experiential learning cycle is based on the idea that people build new knowledge based on the reflection on past experiences. Kolb's theory assumes learning has four different stages (Figure 1).

FIGURE 1
Kolb's experiential learning cycle



(1) concrete experience (feeling); (2) reflective observation (watching); (3) abstract conceptualization (thinking); and (4) active experimentation (doing). Kolb suggests that one may begin the cycle at any stage but should go through the four stages of the cycle for a full learning experience.

Learning may start with living a *concrete experience* such as joining a training or a workshop. After this phase, the learner reflects on the experience he/she has just lived. The learner starts asking questions such as, 'what are the concepts and tools I have been introduced to?', 'how does this theory work?' and 'why does it work this way?'. With those questions, the adult learner decomposes the experience in smaller parts to understand how they differ and how they relate to one another. In doing so, the learner begins to understand the meaning of the experience and its parts both as single entities and as a whole. This is referred to as *reflective observation* in Kolb's model.

[2] Gordijn, F. N., J. Helder, H. Brouwer. 2018. Reflection Methods. Practical guide for trainers and facilitators. https://edepot.wur.nl/439461
Tools to make learning more meaningful. Wageningen Centre for Development Innovation, Wageningen University & Research. ISBN 978-94-6173-403-7 Wageningen Centre for Development Innovation. https://edepot.wur.nl/222693

[3] Kolb, D. A. 1984. Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice-Hall https://www.researchgate.net/publication/235701029_

[4] Morris, T.H. 2019. Experiential learning – a systematic review and revision of Kolb's model, Interactive Learning Environments, DOI: 10.1080/10494820.2019.1570279 http://researchspace.bathspa.ac.uk/13077/1/13077.pdf

[5] Burch, N. 1970. Conscious competence learning model: Four stages of learning theory-unconscious incompetence to unconscious competence matrix-and other theories and models for learning and change. Gordon Training International.

Kolb suggests that, after a deconstruction of the learning experience in the smaller parts, a reconstruction phase starts. During this phase, the *abstract conceptualization*, the adult learner connects the dots of his/her learning experience and relates it with experience. For an adult joining a workshop, new concepts and tools of the training are related to previous knowledge and the questions that the learner has been asking himself in the previous phase, now are contextualized to his/her own reality and field of work. Self-reflection and critical thinking are essential in this phase. Here, the learner makes sense of the experience as a whole.

The final stage of the learning cycle is *active experimentation*. In this stage, the learner consolidates his/her knowledge by putting knowledge into practice. Following our example, the new concepts and tools that have been re-constructed during the earlier phase, now must be tried out for a final check on the underlying assumptions and to draw clear conclusions.

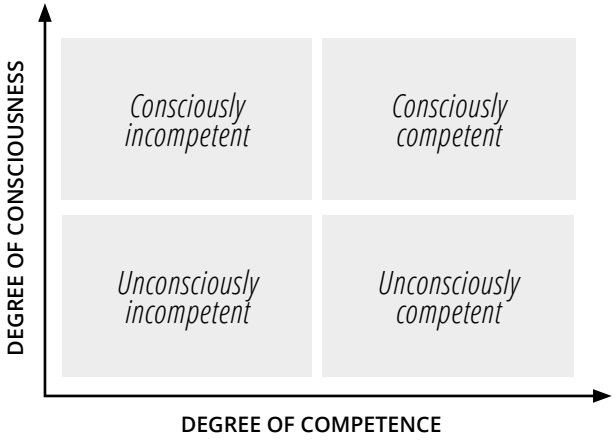
Kolb's model highlights that learning does not stop with getting exposed to new concepts and tools in a training session. In order to truly learn, professionals need to relate new notions with their actual reality (abstract conceptualization). Furthermore, Kolb's model also points out that the learning journey is only concluded if learners try out what they have learnt (active experimentation).

CONSCIOUS COMPETENCE LEARNING MODEL

In the so called 'conscious competence learning model' (Figure 2) learning is seen as having two dimensions: competence and consciousness. The basic idea is that the two dimensions play a role in the learning experience and that they interact with one another simultaneously.

The best way to introduce this model is through an example: learning how to ride a bicycle. At first, the learner has never been exposed to bikes and does not feel the need to learn how to ride one. In this phase, he/she is not aware of not knowing how to ride a bike. He/she is not competent and not conscious (Figure 2, no. 1).

FIGURE 2
Conscious competence learning model



When the learner becomes exposed to bikes and their benefits in transport, then he/she becomes also aware of being unable to ride a bike (becomes conscious), but he/she still does not how to do so (incompetent; Figure 2, no.2). Trainers are essential in showing trainees their knowledge gaps; this is a prerequisite for the learning process.

At a biking course, the learner gets good at riding bikes and, at the end of the course, has become a biker. By being exposed to a learning experience, the learner improves skills and becomes conscious and competent (Figure 2, no.3).

The model includes a fourth stage in the learning journey: unconsciously competent (Figure 2, no. 4). At this point, the mechanism of cycling is completely internalized. The leaner is so experienced and good at the skill that he/she does not need to think of it.

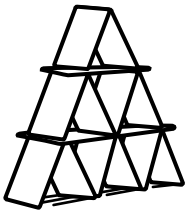
This model suggests that before competences are fully realised and a learner has actually learnt, he/she needs to be aware of the knowledge gap and needs to see the relevance of new knowledge and be willing to engage in a learning process. Moreover, once new knowledge is internalized, it is also taken for granted and becomes unconscious. It is important to note that at this stage, to learn new things, the learner must try to find the gap in his/her knowledge and start again at the consciously incompetent phase of learning.

STEPS IN CURRICULUM DEVELOPMENT

The development of a training curriculum needs detailed information about trainees' needs and expectations, topics of interest, the training budget, venues, and available materials; this information needs to be collected well in advance of the training. With this information at hand, several steps need to be followed to develop the training curriculum; find these steps in Table 1.

TABLE 1
Steps in curriculum development for adult learners

NO.	CURRICULUM AND TRAINING DEVELOPMENT COMPONENTS	GUIDING QUESTIONS
STEP 1	**Identify target audience and assess training needs**	• Who are the envisaged trainees? • What existing knowledge do the trainees have? • What are their knowledge gaps?
STEP 2	**Identify training objectives and competences**	• What are the objectives you aim to achieve at the end of the training? • What are the competences you aim to develop?
STEP 3	**Develop assessment and evaluation tool**	• What tools need to be created to assess the progress? • Assessment -> on-going (monitoring) • Evaluation -> final reflection(evaluation)
STEP 4	**Select relevant topics**	• What content needs to be addressed which is relevant for adults?
STEP 5	**Develop teaching materials**	• What formative instruments, tools, exercises, or games need to be developed, related to the content? • And which ones need to be developed in relation to the experience?
STEP 6	**Elaborate a programme**	• What activities need to be planned? • What should not be included to avoid confusion • How should the programme be developed? • Who participates? • Who does not?
STEP 7	**Develop a daily program**	• How long does each activity take? • What is the pace of learning of your audience?



Application

EXERCISE: DEVELOPMENT OF TRAINING FOR ADULTS

Objectives

Developing a training curriculum for adult learners.

Who to involve

Trainers who want to develop a new course.

How to do it

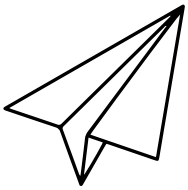
Apply the seven steps approach to curriculum development for adult learners by using the table and the guiding questions (Table 2).

Time needed

- **Instructions:** 20 minutes
- **Implementation:** 90 minutes
- **Presentation and discussion:** 15 minutes per group

Materials

- Background information on the trainees' needs, topics of interest, the training budget, venues, and available materials.
- Spread sheet with a simple table and markers.
- One print per group of Table 2 with the guiding questions.



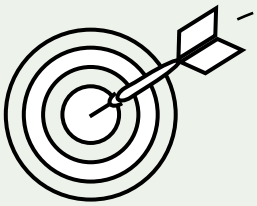
Key messages

- *Successful seed businesses have in-demand marketable products and organisational structures that are appropriate and internally well-functioning, and that focus externally on customers and key partners.*

- *Three components comprise the business plan: (1) a long-term vision supported with virtues and vitals; (2) a medium-term goal supported with marketing, production and financial strategies built on resources; (3) and short-term operational tactics and activities that revolve around time and money.*

3

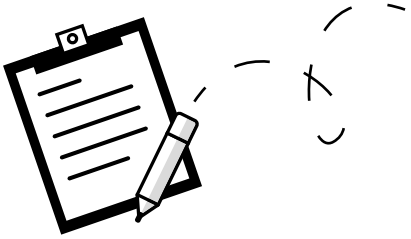
SUCCESSFUL SEED BUSINESS



Learning objectives

After the session participants will be able to:

- *understand the essential elements of a successful seed business; the importance of developing a vision; and establishing marketing, production, and financial strategies, to enable the business to progress towards the vision.*



Explanation

CHARACTERISTICS OF A SUCCESSFUL SEED BUSINESS

Successful seed businesses are characterized by a few key features of operations, as given in Table 2 below. A business has an inward focus (internal activities and structure) and an outward focus (important external relationships) in two main components: the product (the value proposition that the business offers) and the organisation (how the business operates). In each of these quadrants are key points that a business must excel at in order to be positioned for success.

Even when an organization is clear on what is a successful business, no one would state that reaching success is an easy task. From the smallest local enterprises to the largest corporations, a business includes inputs, goods and machineries, exchanges of goods, information and a variety of employees and collaborators with their own expectations, needs and personalities. Of course, the level of complexity increases as the business organization grows or gets more specialized. Management models and frameworks help to organize and oversee this complexity, providing managers and employees with a structure to follow in their daily activities. The simplest version of a business management model includes goals, strategies, and resources.

Any business needs to state what it wants to achieve by running the business. Being short-term objectives, business goals must be defined to lead operations, reinforce motivations, and put aspirations into practice.

The strategies must concern at least the relations between customers and product (marketing) and the way operations are organized (production), as well as the linkages that ensure that money are channelled and support the business (financial). Furthermore, resources can be of many types, such as infrastructure, employees, working capital and land (Figure 3).

The business, its goals and the other components can be visualized as a three-legged stool, where the goal represents the seat, the strategies are the three legs, and the resources constitute a floor on which the stool stands. This image helps us to realize that, like a stool, if one of the three strategies is missing or shorter than the others, the whole business lacks important support and will eventually fall apart. Thus, if one strategy is either underdeveloped or overdeveloped compared to the others, the business is unbalanced. To achieve efficiency and effectiveness, all strategies should be equally developed and implemented. It is also important to note that the three strategies are thoroughly integrated and co-dependant. The marketing strategy requires production of the products to be sold, while the financial strategy integrates the income expected from sales with the cost of production and all three utilise the resources available.

Finally, to achieve goals and to get all components running properly and in a harmonious way, a daily plan is needed that defines the activities to be done timeously and effectively. While implementing the daily plan, continuous evaluation is required, followed by improvement (evidence of what works), that finally gets back to revision of the daily plan. This daily or near-term planning, implementing, and evaluating revolves around time and money, which needs to be managed effectively and efficiently.

TABLE 2
Characteristics of a successful seed business

BUSINESS COMPONENT	INWARD FOCUS	OUTWARD FOCUS
Product	**Technically competent employees** • Well-equipped to produce quality seed (seed and services) • Innovation and improvement • Quality assurance systems • Inventory management systems	**Market oriented** • Customer-driven with valued products (seed and services)
Organization	**Professionally organized** • Operational excellence • Cash conscious, financial control	**Strategically linked with key partners**

SEED BUSINESS ORIENTATION AND RESPECT

Every business operates within a context. One way of reviewing this context is with the "RESPECT" model. This model helps to orientate the business activities in a structured manner. In addition to these, and as the business plan is constructed, cognizance must be taken of the context of the business, and the risks associated with the various assumptions made. The business context can be reviewed according to the following factors:

R REGULATORY ISSUES. Seed regulations may change from time to time and so influence the ease, scope, or cost of doing business. Furthermore, new seed and operational regulations may allow for local seed businesses to flourish, facilitate improved quality seed production or add layers of increased costs and complexity to businesses. Keeping track of seed and other business regulations and anticipating their influence on the market will help formulation of the business plan.

E ENVIRONMENTAL CHANGES. Climate change is often touted as a significant influence that will affect cropping patterns, and seed companies, and seed entrepreneurs need to anticipate this by identifying and marketing climate-resilient as well as high-demanding varieties. But other environmental factors may play a role, such as pesticide use, pest and disease dynamics, and crop diversity.

S SOCIAL DYNAMICS. There are continuous changes in the social arena, with increasing urbanisation, shifts in demographics, changes in diets and health-related issues. Seed companies and seed producers need to track these, as they will influence demand patterns for food, feed, and textiles.

P POLITICAL FACTORS. Policies of government in all spheres of life may affect agriculture and consequently the seed sector. Political interference in the seed market is not uncommon, with government sometimes playing a major role in seed purchase and distribution. Related to political factors is the activity of NGOs that may also subsidise seed markets or promote certain products (such as bio-fortified crops).

E ECONOMIC FORCES. Macro- and micro-economics are dynamic and influence crop production trends, input and output markets, and the profitability of farmers. Businesses need to track exchange rates, prices, buying patterns, government expenditure etc., to be able to make informed business decisions.

C COMPETITION. While competition is generally a good thing in that it stimulates innovation and diversity, provides alternatives to farmers, and helps to rationalise prices, it nonetheless influences market share prospects and business activities. Knowing and competing with the competition is vital for sustainability.

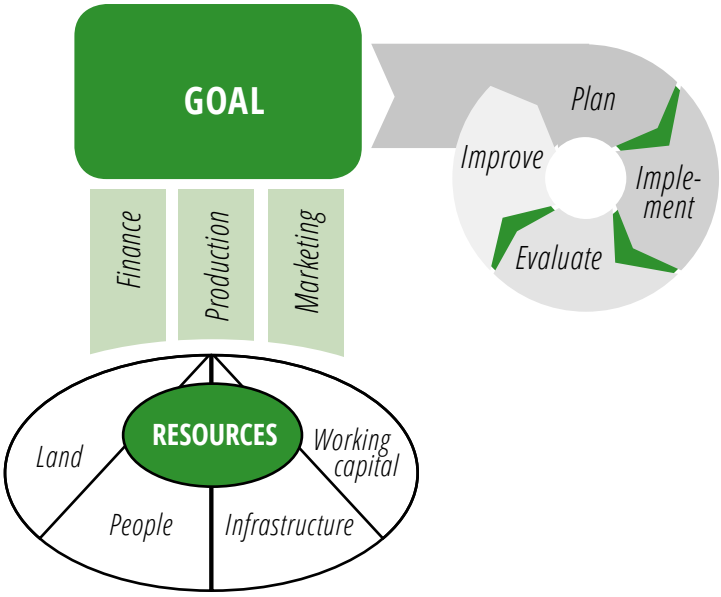
T TECHNOLOGY DEVELOPMENTS. Technology is a fast-moving feature of modern agriculture in both product development (breeding and genetic modification), yield enhancement and post harvesting, and seed companies need to keep pace with technology because farmers will generally want the best techniques to achieve productivity and profitability. The prospect of GMOs in some crops may drastically alter the commercial landscape and demand for seed.

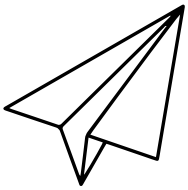
In evaluating risks, it is helpful to identify the principal assumptions made and rank these according to riskiness of not being true (i.e., combination of likelihood of being incorrect or not materialising and the impact of this on the business). The ranking of riskiness of assumptions allows the business to establish risk avoidance or mitigation strategies, so that a more robust and stable business plan can be constructed. The heart of business plan riskiness is the interface with customers in terms of reaction to the value proposition, and it is this component that must be vigorously validated.

Resources

MacRobert, J.F. 2009. Seed business management in Africa. Harare, Zimbabwe, CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa

FIGURE 3
Seed business goal together with strategies and resources

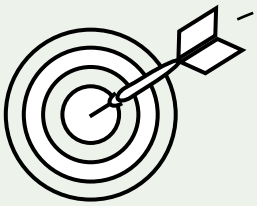




Key messages

- *A seed business model canvas is a tool that enables a seed entrepreneur or company to define the key elements required to achieve the vision of the company.*
- *The construction of the canvas begins with defining customer segments, the value propositions that will meet customer expectations, and how these products will be delivered to customers. This is followed by establishing sales goals, revenue streams and customer relations. Then, how the products will be produced, quality-assured and cost structures are defined. Finally, key partners and key resources are specified.*

4 SEED BUSINESS VISION AND SEED BUSINESS MODEL CANVAS



Learning objectives

After the session participants will be able to:

- *appreciate the components and inter-relationships of the concepts contained within the seed business model canvas.*

Explanation

SEED BUSINESS VISION

Business planning starts with developing a vision that articulates a brief and clear statement of what the business would like to achieve as a business and with customers in the long-term (five to ten years). Along with the vision, the business should define three to five *"virtues"* (i.e., words that describe the ethical boundaries within which the business will operate) and three to five *"vitals"* (i.e., principal non-negotiable cross-cutting activities that must characterise all aspects of the business) that will guide and assist the business to progress towards the vision. These concepts of vision, virtues, and vitals are the high-level, over-arching drivers of the business that set the culture and context for all employees and will influence the relationship with customers and external partners.

A practical way to develop and communicate a seed business vision is to use the seed business vision sheet (Figure 4). A seed business vision is a statement that makes the business goal-oriented, describing the long-term objective or desire of the enterprise. The vision should be well known and understood by everyone working in the company. Along with a vision, it is critical to define:

- » the seed business' ethical virtues (also sometimes called values)
- » the business' vitals (also sometimes called themes) – the cross-cutting activities the seed business can perform well and be proud of
- » a number of key activities that will set in motion the journey of the seed business to realise the vision in the future, called the *bold steps*
- » what (external) support is needed and what are the key challenges to the business.

This vision sheet will focus the members of the business towards realising the future.

FIGURE 4
Example of a seed business vision sheet

SEED BUSINESS MODEL CANVAS

The business model canvas (BMC) is a management tool to visually define and communicate a business idea (Osterwalder, 2004). A version of the BMC has been developed by John MacRobert to embed the framework in the specific context of seed business. The seed business model canvas has been used in trainings for professionals in the seed sector in Asia and Africa. It is presented below.

The seed BMC is a chart composed of eleven boxes indicating the core elements of a seed business (Figure 5). In addition to those, on the top row of the chart, the vision, virtues, and vitals of a seed business are defined.

FIGURE 5
Elements of the seed business model canvas

B. VIRTUES	A. VISION	C. VITALS
2 – value proposition	3 – sales targets	1 – customer segments
7 – value creation		6 – customer relations
8 – value assurance	4 – marketing channels	10 – key partners
9 – cost structure	5 – revenue streams	11 – key resources

Adapted from *Business Model Canvas* by Alexander Osterwalder, used under CC BY-SA 3.0 (Strategyzer.com).

On the left-hand side of the seed BMC, all elements are placed that are *supply (or cost) oriented*, such as the product to develop (value proposition), the quality assurance mechanism or cost structure. On the right-hand side of the chart, all elements are placed that are *demand-oriented*, such as customers, partners, or resources. The elements placed in the centre serve as bridges between the supply and demand elements and relate to income.

Table 5 provides a description of the seed BMC elements. More details on each element are provided in the sessions that follow. The elements are presented in the order they are most easily dealt with in the different sessions.

When explaining the elements and the functioning of the seed BMC, it is important to follow the order of the numbers. To begin with, a vision (A) should be developed, followed by defining the key words for the virtues (B) and vitals (C). The process continues with defining the customer segments (1) and the value proposition (2). The mechanism to bring the product to the identified customers, the marketing channels (3), should follow, and so on. The central area is occupied by the core elements of the seed BMC: these elements put customers, product, product quality and sales in relation one another. The last part is dedicated to resources as well as the mechanism that rules the cost allocation in a seed business.

BOX 1
What is value?

What does it mean… value?

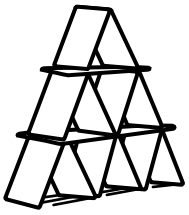
What is value? Think of the following example. For a seed farmer, a board marker pen which costs 10,000 Kyats has no real value because the seed farmer is not interested in the pen for his/her seed farm. He will never pay such amount of money for it. He gets no enjoyment in having it. However, for a teacher, a board marker pen can be of a great value, and he or she will be willing to pay such an amount of money for the utility that the pen will provide for teaching.

Message: *Value is what you get relative to what you pay for it with respect to your needs. What you get depends on what needs are to be met at what cost.*

TABLE 3
Description of the seed business model canvas elements

NO.	SEED BMC AND DESCRIPTION
A	**Vision** The vision stands on top of the seed business idea. This is the long-term expectation of a seed business. It provides a description of how the seed business and customers will look like in the distant future, i.e. 10 years from now. A vision should be guided by the acronym MAP (being a kind of map to the future), i.e., Measurable, Ambitious and Positive.
B	**Virtues** The virtues (sometimes called "values") are the ethical and moral boundaries within which the business will operate. They determine the style and culture of the business.
C	**Vitals** The vitals (or themes) are the essential elements or operational activities that will characterise all aspects of the business. They are cross-cutting issues that must be embedded in all components of the business.
1	**Customer segments** When developing the seed business idea in more detail, customer segments are the first element that must be identified. It is important to realise that various customers have different expectations. Most commonly, they require different products and services, and may be reached through different channels or require different relationships. For the seed business to meet customers' needs, a clear understanding of who they are, and how they differ from each other, is essential.
2	**Value proposition** Identifying customers and their expectations goes together with identifying the product that would provide value to customers. Customer segments will have specific needs to be fulfilled and problems to be solved, and the value proposition identifies the products to satisfy various customers' expectations.
3	**Marketing channels** Seed business encompasses not only the development of a product, but also a mechanism to bring the product to customers. This includes both identifying distribution channels and developing a communication strategy.
4	**Sales targets** Core to any business is the sale of products. This element defines the quantities of product to be sold to customer segments in the forthcoming three to five years. Having a future orientation of sales expectations in a seed business is essential because of the multiple growing seasons needed before certified seed is available for sale.

NO.	SEED BMC AND DESCRIPTION
5	**Revenue streams** This clearly defines the way revenues are generated. This is important, especially when one wants to get an understanding of linkages with service providers and competitors. Key to this is company pricing policy, sales terms to be established and revenue collection methods.
6	**Customer relations** Once customer segments are identified, one should set a mechanism to build relations with customers to obtain and retain customers. The aim here is to develop systems to ensure sales of seed and provide appropriate services. This is largely about marketing products but also about how to engage customers and lead them to the buying decision.
7	**Value creation** The seed business is creating value for farmers in seed supply. The value stream describes the key activities in production and processing to achieve a product that will be valued by customers.
8	**Value assurance** Pivotal importance should be given to the mechanism to assure the quality of products and services. This box will describe the elements of a quality (or value) assurance system, beginning with the quality policy, followed by key components needing quality procedures, and how these will be communicated to employees. Key to this box is also compliance to National Seed Regulations.
9	**Cost structure** Basic to any business is to properly identify the cost structure and determining ways to manage, record and review costs. This includes costs related to produce, process, advertise and distribute seed as well as to provide post-sale services to customers.
10	**Key partners** For a business to be successful, the network of suppliers, regulators and supporters should be well-known and developed.
11	**Key resources** To complete the plan, the business needs to specify the key resources to be acquired and managed, such as infrastructure, human, natural and economical resources.



Application

EXERCISE: DEVELOPMENT OF A SEED BUSINESS VISION SHEET

Objectives

Developing a business vision for farmer seed producers or seed companies.

Who to involve

This assignment is performed by grouping employees of the same seed business or company. Staff with different roles and responsibilities but working in the same organization should be included, as everyone working in the business should know and endorse the business vision.

How to do it

Develop a seed business vision sheet by indicating on coloured cards: a) the vision statement, b) the themes, c) the values, d) five bold steps, e) the support needed and f) the challenges faced by your seed business. Make use of the guiding questions, following Table 4.

Step 1: The facilitator divides participants in as many groups as the number of companies/seed producers in the training. Each group works on one flipchart and elaborates on the seed business vision sheet (Fig. 4). Use coloured cards, one colour for each element of the seed business vision exercise. Make use of the guiding questions (Table 4).

Step 2: In plenary, each group presents the business vision sheet of its organization depicted on the flipchart

Step 3: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

Time needed

» **Instructions:** 10 minutes
» **Implementation:** 50 minutes
» **Presentation and discussion:** 10 minutes per group

TABLE 4
Guiding questions for development of a seed business vision sheet

BUSINESS VISION SHEET COMPONENTS	GUIDING QUESTIONS
Vision	• What is the dream you have for your seed farm or business? • What changes do you want to see taking place in the future? • What would be different or better?
Virtues	• What are the overarching, crosscutting activities that your farm should do, that would make your farm able to reach towards the vision?
Values	• What are the ethical values (or virtues) of your farm that allow it to function as a business? • What are the ethical boundaries within which your farm operates?
Five bold steps	• What are the five bold steps your farm needs to take to start the journey towards the vision?
Support	• What support does your farm need to achieve the vision? • From whom?
Challenges	• What is the context within which your farm operates? What challenges does your farm face?

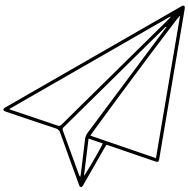
Materials

» One large table for each group, or alternative surface such as the floor.
» Large white sheet of paper and markers for each group; the paper size should allow multiple drawings and texts.
» One print of the guiding questions per group.

Resources

Osterwalder, A., Pigneur, Y. (2013). *Business Model Generation*. Hoboken, NJ: Wiley. https://docs.google.com/file/d/0B4E64nqKSeljZWtBZnpraGtqS0k/view?resourcekey=0-CJwqi3OuA4eKFjg9l82yjQ

Osterwalder, A. (2004). *The Business Model Ontology – A Proposition In A Design Science Approach*. PhD Thesis, University of Lausanne. http://www.hec.unil.ch/aosterwa/PhD/Osterwalder_PhD_BM_Ontology.pdf



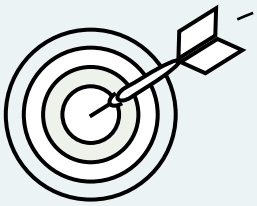
Key messages

- *Customers are individuals or institutions with a problem needing a solution or with aspirations that need fulfilment.*
- *Customers may be grouped into segments that have specific common seed product value expectations, need specific delivery systems, have particular payment methods, and/or require different relationships.*
- *Seed businesses must develop a specific product for each customer segment.*
- *An effective demand for each product-customer combination must be determined.*

5

Seed BMC Component 1: **CUSTOMER SEGMENTATION**

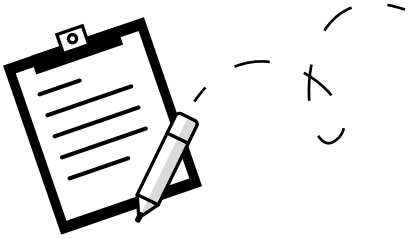
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *recognise that customers comprise individuals or organisations that may be grouped into market or customer segments that an enterprise aims to reach and serve with products and services.*



Explanation

CUSTOMER PROFILING AND SEGMENTS

A customer is a person or institution with problems needing solutions and/or with aspirations that need fulfilment. Defining and grouping customers into segments based on their characteristics of needs and aspirations enables the company to better define the value propositions and methods of engagement. Without customers, a business does not exist. The better the business understands and interacts with customers, the better it will be able to serve them with products and services. Obtaining and retaining customers is key to business success.

Seed companies need to be specific about who their customers are in order to make a defined seed product (i.e., variety, pack size, quality, etc.) available and accessible with the expectation of actually securing seed sales. The customer segments are the different groups of customers the seed company aims to reach. According to Osterwalder and Pigneur (2010), customers may be grouped into different segments if they:

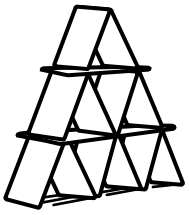
- have different problems and needs, requiring unique value propositions (see Chapter 2 for further information on value propositions);
- access their seed through different marketing channels;
- need different relationships;
- have significantly different income and cost structures; and
- are willing to pay for particular product characteristics or services.

A seed company or seed producer may target one or many customer segments, but for each, a uniquely defined product and/or service (i.e., value proposition) will be defined for which the effective demand for that product-customer combination must be determined, and a value creation and assurance system developed to provide the product and/or service.

To define the characteristics of each customer segment, it is useful to describe the following:

- What is the job (i.e., task or activity) the customer has to do – what are they trying to achieve?
- What pains and problems do they experience in doing this job or activity?
- What gains do they expect from doing the job or work?
- Who are the customers of your customers – for whom are they doing the job?
- How do they access the product that will help them do the job, minimise the pain and reap the gain?
- What relationships do they expect with the seed company?
- What is their ability to pay for the product?
- How many individual people or institutions comprise this market segment?
- How willing are they to change and what will help them make the change?

Once you have defined the customer segments, it is possible to design the products that will meet their needs.



Application

EXERCISE: DEFINING CUSTOMER SEGMENTS

Objectives

Profiling customers of a seed business.

Who to involve

All members working in the same seed business, regardless of the specific role and responsibility. It is advisable to include all levels of a business organization. Special attention should be given to the marketing experts who are better equipped to collect and share updated information on customers' needs.

How to do it

Step 1: In plenary, all participants brainstorm the type of customers active in the seed sector and list them all.

Step 2: In plenary, all participants establish what criteria to use to group customers into homogenous segments. Criteria can include geographic location, volume of purchase, services required etc.

Step 3: The facilitator divides participants into as many groups as the number of different customer segments identified in Step 2. The facilitator manages time, and at the end of the exercise summarises the outcomes.

Step 4: Each group works on one flipchart and elaborates on the customer profile characteristics (see customer profile chart in Fig. 10), in terms of:

» job to be done
» gains
» pains.

Use coloured cards, one colour for each characteristic. Make use of the guiding questions (Table 5).

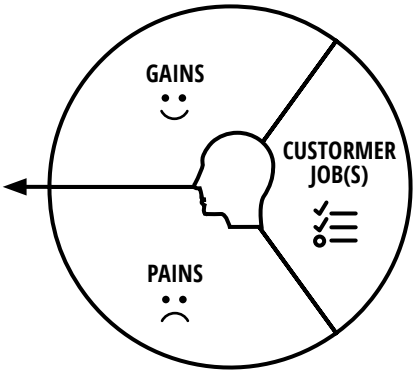
Step 5: In plenary, each group presents the flipchart.

Step 6: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

TABLE 5
Customer segments

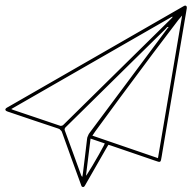
CUSTOMER CHARACTERISTICS	GUIDING QUESTIONS
Customer's job	• What is the job the customer must do? • How does it relate to the seed your business sell? • What is it that the customer is trying to achieve? • What are the needs he/she tries to fulfil?
Customer's gain	• What goals does the customer expect to achieve by doing this job or work? • What are the outcomes expected in doing the work?
Customer's pain	• What problems does he/she experience in doing this job or work? • What are the risks he/she needs to consider? • What are the challenges he/she needs to overcome in doing this work?
Basic quality requirements	• What are his/her basic seed quality requirements? • What are the genetic and biological characteristics the customer expects from seed?
Other quality requirements	• What are the requirements in terms of packages, seed life cycle, storage, transport?

FIGURE 6
Customer profile chart



Resources

Osterwalder, A., Pigneur,Y., Bernarda, G., Smith, A. (2014). *Value proposition design: How to create products and services customers want*. Hoboken, NJ: Wiley. http://www.orange.ngo/wp-content/uploads/2017/04/value-proposition-design.pdf



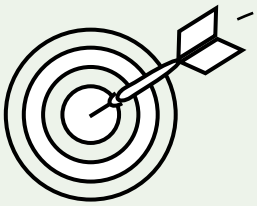
Key messages

- *Customers will only buy products and services in which they perceive value.*
- *The value relates to achieving the job to be done through minimising or overcoming the pains of the job and/or providing benefits that result in gain.*
- *The value proposition articulates the value attributes of the product and service.*
- *Effective demand is an estimate of the current and near-future demand for the product.*

6

Seed BMC Component 2: **VALUE PROPOSITION**

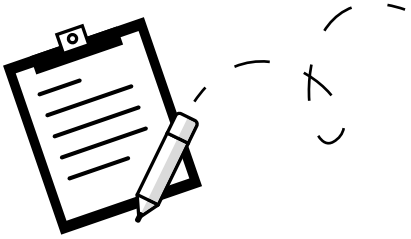
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *understand the term "product" in terms of the value proposition it presents to customer segments;*
- *appreciate the critical value attributes of products: basic (e.g. germination percentage), performance (e.g. yield) and excitement (e.g. additional services) quality attributes.*



Explanation

VALUE PROPOSITION

Customers have needs to be met, problems to be solved and aspirations for a better life. A seed company needs to understand these requirements and challenges faced by customers in order to develop products that have value to the customer. Customers will only buy a product in which they see value, utility, and benefit. Ideally, a business ought to develop products for customers, rather than finding customers for its products. Therefore, it is necessary to first understand the customer and his/her needs.

After identifying the customer segments for the general product and services that a company intends to or does offer (e.g. rice seed), the next step in business planning is to determine the "job to be done" by the customer, and the pains and gains associated with that job. This can be visualised by using the Customer profile – value proposition chart in Table 6.

Every potential customer would like to achieve something, but they cannot fully achieve their goal without some necessary input. For example, a rice farmer is going to plant and grow rice, and in order to do that, one of the essential inputs is seed. For every job or activity that a customer does, there are associated problems, such as lack of resources, that result in "pain" or difficulty, that might even result in failure to achieve their goal. For the rice farmer, this might be lack of good quality seed of the right variety needed in the market. The seed company needs to be able to provide a solution to the problem(s) faced by the customer. Also, when a customer sets about doing a job or activity, they expect to achieve certain gains, such as improved food security or profit from sale of grain. Knowing what gains the customer expects enables the seed company to design and provide a product that will help ensure the customer achieve the expected gains. Thus, solving the problem and assuring the gain, while providing a product with good service, is what value proposition is all about.

TABLE 6
Customer segments and value proposition relation

CUSTOMER SEGMENTS		⟷	VALUE PROPOSITION	
Job to be done	• planting rice for the market	⟷	• technical services • right variety • basic quality of seed • package size packaging	**Product and services to be delivered**
Gains expected	• high yield and income • good quality grain • good price	⟷	• right variety • high yield • disease resistant • translucent • good milling	**Gain creators**
Pains expected	• limited resources • climate & diseases • labour shortage • timeliness • poor technical support	⟷	• resilient variety • disease resistant • seed treatments • provide the right information	**Pain relievers**

CRITICAL VALUE ATTRIBUTES

Products have certain attributes or features that present value to a customer. These may be divided into three critical value attributes based on what the customer expects and experiences:

1. **Basic value attributes** – these are those attributes that must be inherent in the product, because if they are absent, they cause customer dissatisfaction. An example of this is a minimum germination percentage. Farmers expect seed to germinate, and if it does not germinate because the seed itself has poor germination, the farmer will be unhappy. However, if the seed does meet the germination expectations, the farmer is not necessarily happy, but will be indifferent because that is what is expected of the product.

2. **Performance value attributes** – these are attributes related to the performance of the product, such as yield and disease resistance. If a product has these attributes, the customer is satisfied and may even be happy, especially if they significantly improve field productivity. However, in many cases these attributes are environmentally determined, but farmers will understand this, so lack of performance due to adverse environment of a product that has the potential to perform can be explained and farmers will not necessarily be disappointed with the product per se. The more performance attributes associated with a product, the more value is provided to the customer.

3. **Excitement value attributes** – these are additional attributes, not directly associated with the seed or product per se, but provided in addition to basic and performance attributes, that will delight a customer. Examples of these are point-of-sale or after-sales services, information, rewards, and so on, that provide customers with added value without obvious additional costs.

Application

EXERCISE: CREATING A GOOD VALUE PROPOSITION

Objective

Creating a good value proposition.

Who to involve

All members working in the same seed business, regardless of their specific role or responsibility. It is advisable to include all levels of a business organization.

How to do it

The value proposition exercise is a follow-up of the customer profiling exercise addressed in Section 2. To carry out this exercise, the same customer segments, customer profiles and groups identified above should be used. Two exercises must be conducted subsequently.

Step 1: The facilitator explains that each group should use a flipchart and coloured cards to describe their value proposition, in terms of:

- products and services to be delivered
- gain creators
- pain relievers.

See the value proposition chart in Figure 7.

The facilitator explains that products and services to be delivered, gain creators and pain relievers should match with the customer's job, gains and pains identified in the customer's profile exercise. Products and services are designed to be used in the customer's job. Pain relievers and gain creators should outline how the company's value proposition solves the customer's problem and make him/her better off. The facilitator manages time, and at the end of the exercise summarises the outcomes.

Keep colours consistent across the two exercises. Make use of the guiding questions (Table 7).

FIGURE 7
Value proposition chart

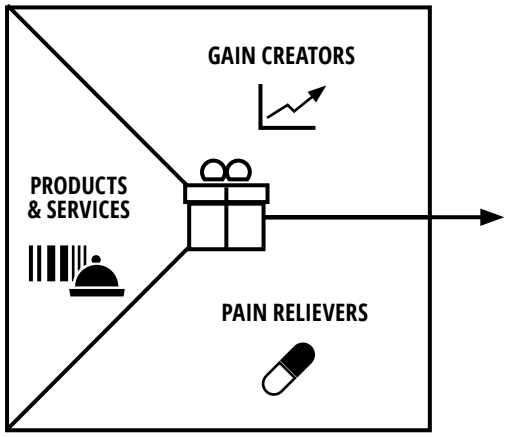


TABLE 7
Designing meaningful value proposition

CUSTOMER CHARACTERISTICS	GUIDING QUESTIONS
Products and services to be delivered	• What are the products relevant to the job or activities your customer needs to do, that your company can provide? • What are the services that matter to your customers and that your company can provide? • How do they relate to your business model idea?
Gain creators	• How do your products and services support customers in reaching their goals? • How do your products and services contribute to the outcomes customers pursue? • How do your products and services help customers to achieve the benefits they desire? • How does your products and services generate positive changes in the professional and private life of customers? • Can your products and services positively influence customer social or economic status?
Pain relievers	• Can your products and services have a positive impact on the drawbacks of the customer's job? In what way? • How do your products and services help customers facing the challenges of their job or activity? • How do your products and services reduce risks associated to customers' work? • How do your products and services support customers in the development of copying strategies? • Can your products and services contribute to customer resilience? How?

Step 2: In plenary, each group presents the value proposition flipchart to the audience

Step 3: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

Time needed

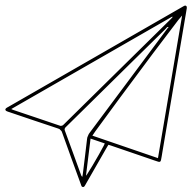
- **Instructions:** 5 minutes
- **Implementation:** 45 minutes
- **Presentation and feedback:** 10 minutes per group

Materials

- One large sheet of paper and markers for each group.
- Coloured cards to be used to fill up the chart, answering the guiding questions (Table 7).
- One print of the guiding questions per group.

Resources

Osterwalder, A., Pigneur,Y., Bernarda, G., Smith, A. (2014). Value proposition design: How to create products and services customers want. Hoboken, NJ: Wiley. http://www.orange.ngo/wp-content/uploads/2017/04/value-proposition-design.pdf



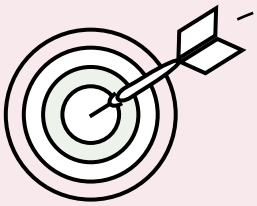
Key messages

- *Seed businesses are by nature long-term endeavours, requiring seed sales to be forecast three to four years into the future.*
- *Forecasting seed sales is based on recent historic sales figures, current productions, and estimated future demand for each customer segment – product combination.*
- *Sales targets should be ambitious simply because early generation seed (EGS) production must be done in advance and EGS supplies should not limit future sales prospects.*

7

Seed BMC Component 3: **SALES TARGETS**

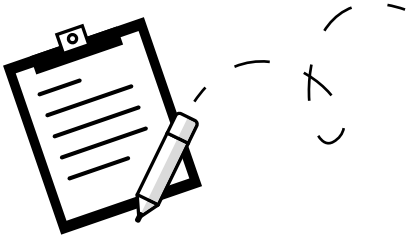
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *understand the principles and estimate the seed demand for certified seed of a crop variety;*
- *develop a three- to five-year sales projection for products and customer segments.*



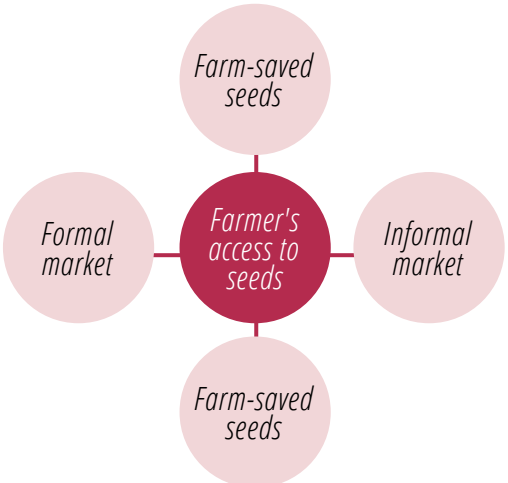
Explanation

SEED PRODUCTION TARGETS

A seed business is, by nature, a long-term endeavour. Certified seed (CS) must be produced from registered seed (RS), which in turn must be produced from foundation seed (FS), which originates from breeders' seed (BS). Thus, it takes at least four seasons (generations) from BS to have seed for sale. Consequently, the sales targets must be a forward projection by three to five years. This makes it very difficult because the future is uncertain. Nevertheless, it must be done so that the estimated required quantities of early generation seed (EGS) can be produced or secured in the current season. Although the future sales targets are estimates and uncertain, they are adjusted annually to meet expected demand and seed sector developments.

Determining the effective demand for products in the seed sector is difficult because farmers obtain seed from various sources and there are many thousands of farmers distributed over a large diverse area. There are at least four sources of seed accessible by farmers (Figure 8): own-saved seed, informal market, government and/or NGOs and the formal market. For many self-pollinated crops, farmers will first use self-saved seed or seed from the informal market before or instead of purchasing seed from the formal sector.

FIGURE 8
Seed sources farmers may use



To understand the dynamic of seed demand estimation, it is necessary to estimate what portion of the seed use is derived from these sources. This is best done through conducting formal surveys with farmers, but these are expensive and time-consuming. Alternatively, informal surveys and feedback from reliable sources, such as government extension services and field staff, may provide a good indication of the proportions.

Whatever kind(s) of market research is carried out, the objective is to arrive at the following data:

- the total area of land and quantity of seed that customers use to grow the kind of seed that the company has for sale in the target market area or customer segment. This will give the total seed use by all farmers (all potential customers). These data may be obtained from national statistical data or the extension services.

- the total proportion of land area and total seed use by the customer segment at stake. This is estimated from customer surveys or conventional wisdom of the seed market.

- the area of land and quantity of seed that the customer segment sows to purchase certified seed (from the formal market) of the kind of product the company has for sale (the seed purchase frequency). This will give the certified seed use or the total amount of seed use from the formal sector.

- the market share the company has in the formal market for this kind of product and customer segment; this may be estimated by reviewing sales figures and purchase patterns of customers.

- what growth expectations or what kinds of improved products the customers require in the coming seasons. This will be determined by the company as they look into future prospects and expectations.

With this information, a few simple steps may be followed to estimate effective seed demand for a product in a customer segment. In the exercise section, an example with explanations is provided.

SALES FORECASTING

Coupled with seed demand will be the historic sales data and current production of all seed classes. Thus, from a knowledge of recent historic sales and an estimate of current season seed sales, based on current seed production volumes (or availability) of all seed classes, future sales may be forecast. A simple table such as the one below (Table 8) may be completed to give the company focus and intention for the future with regards to sales targets.

Several things must be noted: (i) it is essential to always look to the future, (ii) sales targets are established for a combination of customer segment and product, (iii) future sales targets are based on current production/availability of all seed classes, and (iv) sales targets must be set before making production calculations. Sales forecasting is an estimate of future possibilities. It is unlikely that reality will be the same as the forecast, but that is the purpose of having a marketing strategy. The aim is to achieve the sales forecast. The sales forecast needs to be reviewed annually, based on immediate and recent past achievements while considering changes in the market.

BOX 2
Think big!

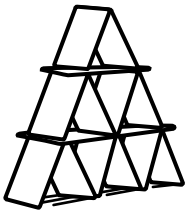
Think big!

Dare to be ambitious with regards to future sales targets. The assumption that farmers need good quality seed of adapted varieties to be productive is true, and if the customers and products make a good value match, then there is reason to be ambitious. The present can always be adjusted according to prevailing conditions, but unless future sales plans are ambitious, current EGS production will likely limit any future unexpected or realistic growth in seed sales. EGS production is a small cost to the business relative to the value in certified seed, and so this should not be allowed to limit future sales opportunities. Furthermore, being ambitious gives the sales team a target to work towards.

***Message:** Plan for progressive and ambitious seed sales growth within the context of the prevailing seed market and combine this with a vigorous marketing campaign and selling strategy to achieve the goal.*

TABLE 8
Future sales targets

CUSTOMER SEGMENT	PRODUCT DESCRIPTION	2019		2020		2021	
		Quantity	Units	Quantity	Units	Quantity	Units
TOTAL							



Application

EXERCISE: ESTIMATING SEED DEMAND

Objectives

To be able to estimate sales targets for a given customer segment.

Who to involve

This exercise is best carried out by the marketing and production department.

How to do it

The facilitator explains the exercise using Table 9. What follows is a detailed description of the formulas in the table, in six steps.

The total seed use of the product the company has for sale in a target area is the overall amount of seed of a certain type and variety supplied by the company and that farmers sow in the given geographical region. Seed use is given by the total area of land available to grow the given seed product times the average productivity or seed rate of the given variety. This represents the total seed use described in point 1 of Table 9.

In our example: 700,000 kg:

Step 1: 700,000 = 10,000 × 70

Next step is to consider the total seed use for a given customer segment. This represents the amount of seed demanded for the varieties offered by the company. First it is established what proportion of farmers are in the given customer segment and that grow the given seed product, in our example, 40%.

Then the amount of seed use for a given variety by a given customer segment is calculated. This can be calculated in two ways. First option is to calculate the % of the land required to satisfy the demand of the given seed product (here, 40%), and to multiply by the average productivity. This point is described in no.2 and 3.

Step 2: 4,000 = 10,000 × 0.4
Step 3: 2,800 = 4,000 × 70
or
Step 2 and 3: 2,800 = 700,000 × 0.4

Then, based on the seed sources diagram, determine the percentage of seed certified seed purchase or seed purchase frequency (from the formal market), in our example 20%. Thus, the amount of certified seed required is found. This point is described in no.4:

Step 4: 56,000 = 2,800 × 0.2

TABLE 9
Seed demand estimation

DETAIL	EXAMPLE	CALCULATION
1. Total seed use in the target market area	700,000 kg	10,000 ac × 70 kg/ac
2. Proportion of farmers who are in the customer segment of interest	40% = 4,000 ac	Estimate: 10,000 ac × 40%
3. Total seed use of a product by a customer segment	280,000 kg	4,000 ac × 70 kg/ac
4. Seed purchase frequency (or certified seed use)	20% = 56,000 kg	280,000 × 0.20
5. Your market share of certified seed use	60% = 33,600 kg	56,000 × 0.60
6. Growth expectation in the next year/season	5% = 35,280 kg	33,600 × 1.05

Unless the case of a monopoly, a seed company or seed producer would only be able to hold a share of the seed demanded for the given seed product, as competitors also supply a portion of this seed. Therefore, a seed company or seed producer will need to establish what is the market share it can realistically cover with its products and services. In this example, we assume that the seed company reaches a market share of 60% and leaves the remaining 40% to other seed companies in the same sector and segment. This is shown in step 5.

Step 5: 33,600 = 56,000 × 0.6

In the final stage an assumption about growth must be made. In our example, 5% at step 6. This assumption must be realistic, and it can be derived from historical records of sales. Yet it must be driven by a certain degree of ambition if the company wants to be prepared to succeed.

Step 6: 35,200 = 33,600 × 1.05

From this example, the near-future estimated demand for the customer segment–product combination is 35.2 t of certified seed. The growth expectation may come from company market share growth, total formal market growth or both.

Time needed

» **Instructions:** 15 minutes
» **Implementation:** 30 minutes

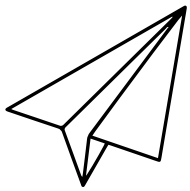
Materials

» Official statistics or data on the amount of land grown to a given variety in a specific geographical area.
» Official statistics or data on the average seed rate of a given variety.
» Flipchart and markers.

Resources

Osterwalder, A., Pigneur, Y. (2013). *Business Model Generation.* Hoboken, NJ: Wiley. https://docs.google.com/file/d/0B4E64nqKSeljZWtBZnpraGtqS0k/view?resourcekey=0-CJwqi3OuA4eKFjg9l82yjQ

MacRobert, J.F. (2009). *Seed business management in Africa.* Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa



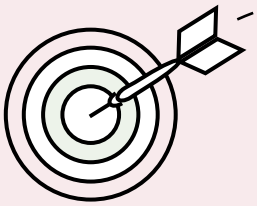
Key messages

- *Marketing channels connect customers to products to secure sales.*
- *Two important components of marketing are distribution networks and communication.*
- *Setting up continuous and correct communication with customers aims to create awareness and trust in product value.*

8

Seed BMC Component 4: MARKETING CHANNELS

B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *understand the basic importance of communication with customers;*
- *understand the importance of establishing and administering seed distribution systems and trade networks;*
- *identify advantages and disadvantages for direct and indirect distribution channels.*

Explanation

DISTRIBUTION CHANNELS

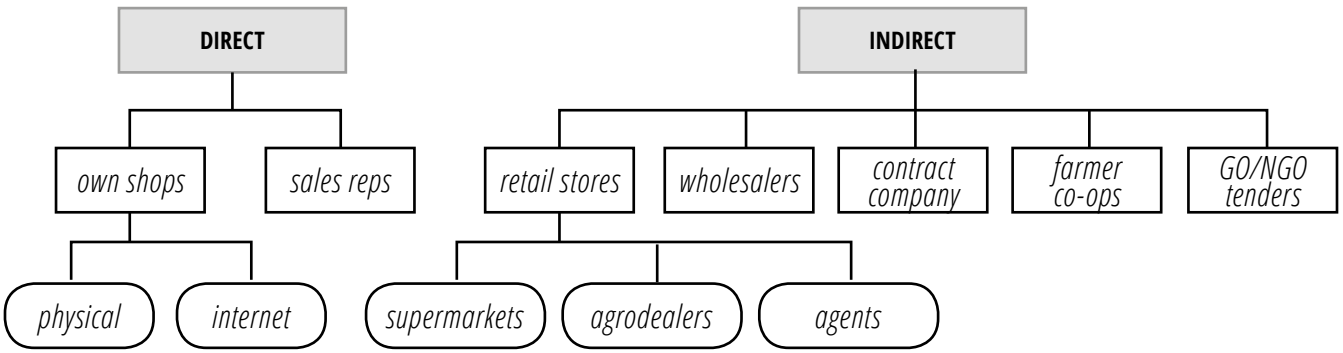
Products of a seed business or company must be made available to customers so that access is ensured for purchase and use. Marketing is that aspect of the business that seeks to connect customers to products with the intention of securing sales. This involves establishing marketing channels and building relationships to attract, gain and retain customers. Marketing may also concern itself with knowing and competing with the competition, but if the marketing strategy effectively pursues customer relationship building and efficient distribution systems, this will be an effective means of competing with the competition.

There are two types of distribution channels, direct and indirect (Figure 9). Generally, in markets made up of numerous dispersed smallholder farmers, indirect channels will be more important than in markets comprising fewer large-scale farmers or institutions. Indirect distribution will cost the company more due to the price waterfall (such as discounts, delivery charges and credit reducing the final price received), but they do enable the company to have a wider reach, and the distributers carry some of the risk of stock management and onward credit where given. The downside of indirect marketing is that the company does not have much direct contact with customers, unless in-store merchandisers or field company representatives are employed to promote sales and interact with customers.

Some considerations regarding the distribution network include:

- Establishing sales agreements, sales expectations, and budgets for each distributor, based on location, customer traffic, history and so on.
- Where to locate shops so that products are available to customers. Locations that are convenient and accessible to customers is key.
- Qualifications for partner stores and agents. Decide what kind of store you want to work with, what kind of people you want to work with, and what kind of turnover you expect.
- Terms of trade. Will you expect exclusive or non-exclusive stocking of your products? Will the deal be a one-off, cash on delivery, credit (e.g. 30 days to pay after delivery) or consignment stock (distributor pays for what is sold when it is sold, with stock ownership remaining with company)? Cash is king but may require the offering of discounts. Early payment discounts with credit sales may also be used as an incentive for timely payment. Consignment stock requires regular check-ups and timely payment demands.
- Support services. How will you support the sales efforts of your distributors? Considerations include advertising, in-store merchandising, stock management, quality control, and customer follow-up.

FIGURE 9
Distribution channels to deliver seed to customers



» Quality assurance. Because seed is a perishable product and quality is highly dependent on storage conditions, distributors must be monitored to ensure seed quality is maintained. Careful records of lot numbers and stock age will help maintain quality, but regular checks of distributor warehousing will also help. Return of unsold stock at the end of the season will prevent carry-over of seed and quality deterioration in the distributor warehouse.

» Customer records. Gathering information on customer purchase patterns and their location is useful for marketing products, follow-up service provision, and quality assurance.

» Training of distributor staff on seed quality maintenance, product attributes and benefits (the value proposition), seed use and agronomy of crop management and brand awareness will assist in sales performance.

COMMUNICATION STRATEGIES

Marketing also involves communicating with customers. This can be achieved in two ways: (i) creating awareness about the seed product, and (ii) engaging customers with services, at all stages of the customer journey (i.e., from pre-sale, through point-of-sale to after-sales).

To create awareness around the product, seed businesses need to:

» define a communication strategy,
» conduct a promotion campaign, and
» develop a customer-service system.

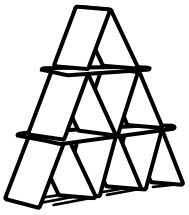
The communication strategy will consider the ways farmers and customers obtain information, the kind and form of information that is required, and the timing of communication relative to seeding and crop growth. The promotion campaign will be both direct and indirect, and will involve personal and impersonal (or passive) engagement. Regardless of the way chosen, the aim is to give the opportunity to customers to examine and evaluate the product to ascertain its value. It is important to realise that in any marketing activity trust plays a pivotal role.

BOX 3
Trust in the seed business

Trust in the seed business

From a customer's point of view, buying seed is an emotional activity, not just cognitive, because he/she is buying a future and their livelihood is linked to the seed they buy and grow. The real value of the seed is only realised three to six months after purchase, when the crop is harvested and sold. Thus, customers need to gain trust in you and the product. Trust is built by giving credible information, honouring commitments, having products that perform and being reliable. Furthermore, farmers gain trust by seeing and experiencing product performance in their fields or in fields of other people they trust.

***Message:** Trust is essential in seed business. As buying seed is more than purchase and input, great attention should be given to the ways trust is created and reinforced between suppliers and customers.*



Application

EXERCISE: DISTRIBUTOR ASSESSMENT

Objectives

Assess the two types of distribution channels, direct and indirect, by identifying the advantages and disadvantages for each channel.

Who to involve

This exercise is particularly relevant for managers of a company's marketing department as well as business promotion experts supporting farmer groups and cooperatives.

How to do it

The facilitator forms as many groups as the number of companies and seed producers participating in the training. To each group, the facilitator hands out coloured cards, one flipchart sheet for direct channels and one flipchart sheet for indirect channels (Figure 10). The facilitator manages time, and at the end of the exercise summarises the outcomes.

Participants:

Step 1: Each group should name, describe, and evaluate the different distributors in the geographical area of interest, in terms of:

- type of distributor (such as private sale shop, private retail shop, farmer cooperative, private company, NGO trader, public trader)
- size of distributor (small, medium, large)
- accessibility from seed user farmers/final customers (from 1 to 5)
- company's influence on quality assurance mechanisms (from 1 to 5)
- customer's awareness about the product (from 1 to 5)
- personal involvement rate with customers (from 1 to 5)

Step 2: In plenary, each group presents the distributor system flipchart to the audience.

Step 3: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

FIGURE 10
Distributor assessment example

DIRECT DISTRIBUTOR SYSTEM					
Type of distributor	**Size of distributor**	**Accessibility (+,++,+++, etc.)**	**Influence on quality (+, ++, +++, etc.)**	**Customer's awareness (+, ++, +++, etc.)**	**Personal involvement rate (+, ++, +++, etc.)**
Private shop					
Etc.					

INDIRECT DISTRIBUTOR SYSTEM					
Type of distributor	**Size of distributor**	**Accessibility (+,++,+++, etc.)**	**Influence on quality (+, ++, +++, etc.)**	**Customer's awareness (+, ++, +++, etc.)**	**Personal involvement rate (+, ++, +++, etc.)**
Farmer cooperative					
Etc.					

Time needed

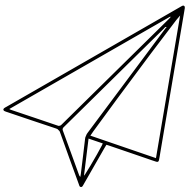
» **Instructions:** 10 minutes
» **Implementation:** 45 minutes
» **Presentation and feedback:** 10 minutes per group

Materials

» Two large sheets of paper per each group, coloured cards, and markers.

Resources

MacRobert, J.F. (2009). *Seed business management in Africa.* Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa



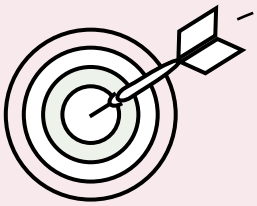
Key messages

- *Setting a realistic selling price is key to business viability.*
- *The selling price must be above the breakeven price but less than the ceiling price.*
- *Revenue must be captured through clearly defined sales agreements, whether for cash, credit or on consignment.*

9

Seed BMC Component 5: **REVENUE STREAMS**

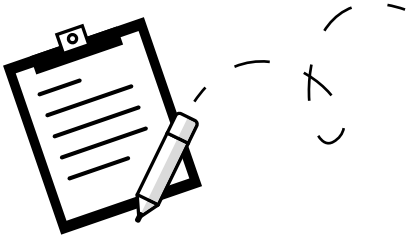
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *understand how revenues are generated through sales of seed;*
- *understand key concepts related to seed pricing.*



Explanation

SETTING THE SELLING PRICE

This section seeks to answer how we capture the value of our products that we sell. The most effective ways of achieving revenue streams are, firstly, setting the right price of products, and secondly, ensuring that the value is received into the business. While increasing volumes of sales is important for revenue, seed price determines the margin over costs of production. The greater the margin, the greater will be the profit at any volume of seed sales.

To understand the right price to set for a product, we can think of the selling price sitting in the range of possible prices that vary between a floor (breakeven) price (which is the price that allows you to meet your costs of production and operation) and a celling price (which is the maximum price your customer is prepared to pay for the product). But it is not an easy number to determine. Obviously, the closer the selling price is to the ceiling price the greater the margin, but the greater the chance of consumer resistance to purchase. For some crops, like rice and other self- or open-pollinated crops, where farmers can retain grain for use as seed, a third factor to consider is the grain price. For such crops, the seed price is relatively elastic, because there are easy alternatives to seed access. Therefore, as price increases above the grain price there is a relatively faster increase in price resistance. However, if the customer complains about the price, it is an indication that you are not delivering value in the product.

The floor price, or breakeven price (BEP), is determined by the following formula:

$$\mathbf{BEP = (OE + \sum COG) / Q}$$

where

OE = operational expenses (i.e., all the costs of operating the business, such as salaries, rent, vehicles, electricity, licenses, etc.)

∑COG = total cost of goods (i.e., total cost of production and processing seed into a saleable form)

Q = quantity of seed produced for sale.

The breakeven price is the minimum price that must be charged for the seed, assuming that all the seed (Q) is sold. If less seed is sold than produced, then the breakeven price increases. Many seed companies will determine the breakeven price on selling a proportion of their total production, say 80%, so as to be conservative and give a measure of risk mitigation.

Once the breakeven price is set, a selling price may be calculated based on the expected gross profit (GP) expectation, with the following formula:

$$\mathbf{P_{GP\%} = (\sum COG + OE) / ([1 - GP\%] \times Q)}$$

The higher the expected GP, the higher will be the price. Again, the expected amount of seed sold may be set as a proportion of the total seed produced (Q). Usually, in a non- or low-inflationary environment, a GO of 20% is reasonable, and sales of 80% of production is a conservative estimate to use for calculating this selling price.

The box on next page shows an example of how to calculate the seed price using both methods.

ENSURING THE COMPANY RECEIVES REVENUES

There are three ways that the company may receive revenue.

1. Cash sale, which is the best, as value is captured at the point of sale. To encourage cash sales, companies may consider offering cash discounts, but in effect this reduces revenue significantly, unless the expected discount is included in the cash price.

2. Credit sale, in which the product is provided now, with payment received some time in the future. To ensure payment, there should be a) an agreement (ideally a written credit sale agreement, that includes, at least, a well-defined timeline for payment, and a defined cost or interest rate) and b) a security statement to establish what to do then they fail to pay.

3. Consignment stock, where product is in a shop, but ownership of the stock remains with the seed business. The payment for the seed is only made when it is sold. Consignment stock should also be placed with distributors with an agreement similar to the credit sale agreement. Note also, that since the stock remains the property of the business, the business must take measures to preserve the security, integrity, and quality of the stock while on the premises of the distributor.

Note that in 1 and 2, the ownership is transferred from the business to the customer, while in 3 the ownership of the product remains with the supplier until sold. In the seed business, consignment stocking is a very common way of distributing seed. This requires constant monitoring and stock-taking, to be able to timeously invoice sales and secure payment.

BOX 4
Calculating the breakeven price

Example: calculate the breakeven price

Consider the following data of a seed business:

- *sale target for the current year: 15,000 baskets*
- *total cost of production: 75,000,000 kyat*
- *operational cost: 30,000,000 kyat*

The total cost of production and processing is as follows:

$$\text{cost of production + operational costs} \rightarrow$$
$$105{,}000{,}000 = 75{,}000{,}000 + 30{,}000{,}000$$

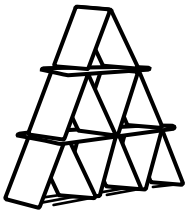
The breakeven price is equal to:

$$BEP = (OE + \sum COG) / Q \rightarrow$$
$$7{,}000 = 105{,}000{,}000 / 15{,}000$$

Using the information in the above example, and assuming a GP of 20%, the breakeven price based on the expected gross profit, is as follows:

$$P_{GP\%} = (\sum COG + OE) / ([(1 - GP\%] \times Q) \rightarrow$$
$$8{,}750 = 105{,}000{,}000 / ([1 - 0.2) \times 15{,}000)$$

Message: *Setting a breakeven price sets the lowest price at which company can afford to sell its seed. A higher price will ensure it makes a positive gross margin and profit.*



Application

EXERCISE:

Objectives

Identifying and evaluate the three basic sale mechanisms – cash sale, credit sale, consignment stock sale – by performing a SWOT analysis (analysing the internal and external factors that support or hamper sales).

Who to involve

Sales experts and staff working in the financial department of a company are the target group of this exercise.

How to do it

Facilitator: on three large flipcharts, draw a SWOT analysis diagram of different sale mechanisms (see Figure 11). The diagram has four quadrants indicating: a) strengths (upper left corner), b) opportunities (bottom left corner), c) weaknesses (upper right corner) and d) threats (bottom right corner). Divide participants in three groups: cash sales, credit sales and consignment sales. Each group will work on one SWOT diagram.

Facilitator: explains how a SWOT analysis works. Strengths and opportunities represent factors that positively affect sales, while weaknesses and threats have a negative influence. While strengths are factors that the company can directly control and leverage to benefit from the sale mechanisms, opportunities are external and represent advantages that the company intend to grab. Likewise, organizational set-ups that make sales more difficult, are the company's weaknesses, while external conditions that have a high chance to hamper sales are the treats that the company need to be aware of when using any given sale mechanisms.

FIGURE 11
Examples of SWOT analysis applied to sales mechanisms

CASH

Strengths	Weaknesses
• direct sales • secure payments	• higher security and control measurements needed
Opportunities	**Threats**
• increased liquidity • being ready to grab market opportunities	• being exposed to currency devaluations

CREDIT

Strengths	Weaknesses
• Direct sales • Higher prices (interest) • Increasing volumes	• Risks of insolvent customers • Delayed payments
Opportunities	**Threats**
• Broader customer bases	• Being exposed to negative effects of market dynamics such as economic shocks and deflation

CONSIGNMENT STOCK

Strengths	Weaknesses
• Shared costs of sales force • Shared selling risks	• Indirect sales • Delayed payments
Opportunities	**Threats**
• Broader sale outreach • Broader sale distribution	• Fewer end user information • Weaker customer relations

Participants:

Step 1: Each group brainstorms and carries out the SWOT analysis using different coloured cards for each dimension of the chart.

Step 2: In plenary, each group presents the SWOT analysis flipchart to the audience.

Step 3: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

Time needed

- **Instructions:** 10 minutes
- **Implementation:** 45 minutes
- **Presentation and feedback:** 10 minutes per group

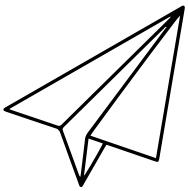
Materials

- Flipcharts, coloured cards, and markers.

Resources

Osterwalder, A., Pigneur, Y. (2013). *Business Model Generation*. Hoboken, NJ: Wiley. https://docs.google.com/file/d/0B4E64nqKSeljZWtBZnpraGtqS0k/view?resourcekey=0-CJwqi-3OuA4eKFjg9l82yjQ

MacRobert, J.F. (2009). *Seed business management in Africa.* Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa



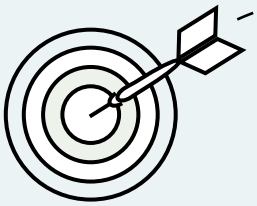
Key messages

- *Customer relations are all about acquisition and retention of customers.*
- *Not all potential customers in a target market will actually become customers.*
- *Customers must have positive experiences when interacting with the company.*

10

Seed BMC Component 6: CUSTOMER RELATIONS

B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *understand the concept of prospecting and the sales funnel as a means of reaching sales goals;*
- *understand the key elements of direct and indirect communication;*
- *appreciate the importance of the customer journey and why that needs to be made an easy and enjoyable experience.*

Explanation

SEED SELLING FUNNEL

The total revenue from sales is determined by the number of customers × quantity of seed purchased × price. Usually, with small-holder farmers, the quantity of seed purchased is small or limited because they have limited resources and small field sizes. The price is set to ensure it will earn the company a certain margin over costs and be at a level where the customer recognises the value of the product. Therefore, to increase revenue, the best opportunity is to increase the number of customers. Acquiring and retaining customers requires an understanding of how to manage customer relations.

The purposes of customer relations are (1) to acquire and retain customers and (2) ensure we have satisfied and delighted customers.

Not all customers in a market are actual customers, in the sense that a customer is only a customer when he/she has purchased seed. Within a target market, every person or organisation in a customer segment is a potential customer. However, there is a process to filter down the (large) pool of potential customers to actual customers, using a system known as the sales funnel (Figure 12).

FIGURE 12
The "sales funnel" from potential customers to the point of sale

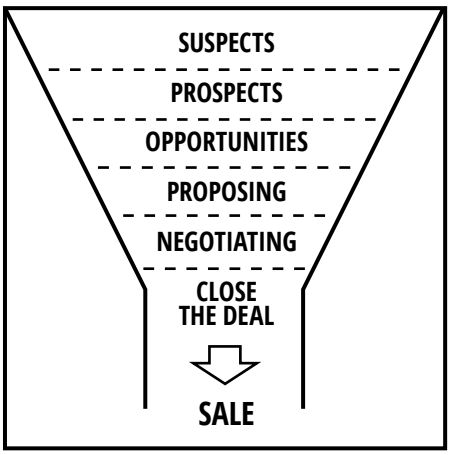


TABLE 10
Customer interaction and openness to deal

CUSTOMER INTERACTION	DEAL LIKELIHOOD
suspect	may or may not be interested in purchase
prospect	some potential for reaching a sales deal, since they show some interest in the value proposition
opportunity	great potential for deal; the customer is sincerely interested in the product and/or service
proposing	the deal is open and possible, and a clear proposition is made to the customer
negotiating	deal is in negotiation, with the price and terms of payment under review
decision made	deal is closed, and the product is sold

The sales funnel identifies six stages of customer interaction:

1. *suspects:* all farmers in the market – includes customers, potential customers, and non-customers;
2. *prospects:* those farmers that express some interest in purchasing seed, e.g. they may approach the shop with interest, with the possible intention of buying;
3. *opportunities:* those farmers who are likely to buy seed if they perceive value in the product, e.g. they approach the shop with a specific interest to buy if the deal is right;
4. *willing:* these are farmers who show willingness to buy and to whom a proposal may be made concerning the offering of a proposition;
5. *negotiating:* those with whom the specifics of the deal are negotiated, such as the price and condition of the sale; and finally
6. *customers:* those who finally make the purchase. At this point the deal is closed and the exchange takes place.

The way customers interact with the product is indicative of the extent to which the deal is likely to happen. As the table above indicates (Table 10), unless farmers get to the proposing or negotiating stage, i.e., showing a concrete interest towards the seed product, the sales is far by closing.

Thus, the company can allocate resources and set up a specific communication strategy to make sure that it maintains the customer's interest in the product.

Note that this model is called a funnel because it goes from a very large audience of potential customers to a small number of customers who actually purchase the product. Another important point to make is that the relation goes from impersonal to personal to finally get to a very close relationship.

What is needed for success in sales? There are two issues that matter: (1) activity – what we do, and (2) effectiveness – how well we do it. It must be noted that to achieve effectiveness, companies need skilled employees who work at achieving sales and actually achieve sales. Therefore, the sales team needs to be trained in engaging and building relationships with customers.

COMMUNICATIONS WITH CUSTOMERS

There are two ways of dealing with customers: direct and indirect.

Indirect communication is one-way communication; tends to be impersonal; is used to communicate with many people; and must have a simple, eye-catching, thought-provoking direct message with information on how the customer may respond.

Direct communication is two-way communication; is personal, with interactive dialogue; is limited in the number of people; and must be principally one of hearing and responding to the customer's needs and aspirations, rather than simply conveying information.

CUSTOMER JOURNEY

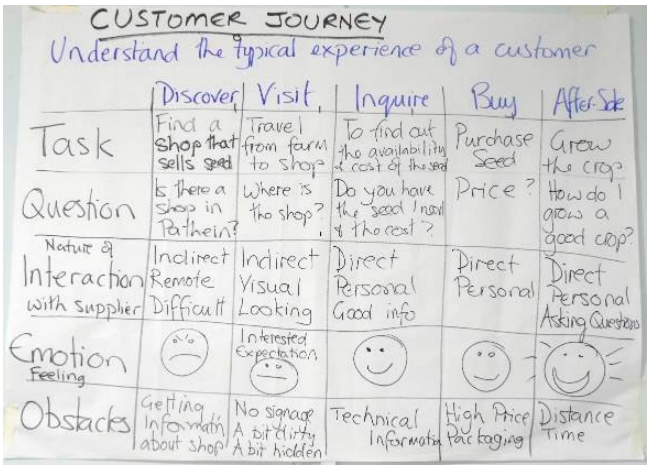
With regards to customer relations it is helpful to consider the journey a customer must go through to reach the point of purchasing seed and making use of it. With this understanding, the company can institute measures to help ensure that customers do not get lost on the way but rather have a good experience at every stage of interaction with the business.

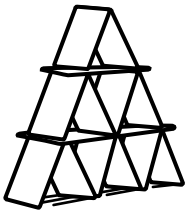
There are at least five stages in a customer journey: (1) discovery of a supplier either from friends or media; (2) making the physical journey to visit and gain access to the business or products; (3) engaging in a conversation with staff to inquire about their seed requirements; (4) purchasing the product; and (5) after-sales service.

It is possible to follow or review the customer journey and describe the experience of a customer paying attention to six elements: (1) task the customer has to do; (2) the related question that the customer asks related to the task; (3) a brief description of a the nature of interaction between the customer and the company; (4) the emotion of the customer during each stage of the journey; and (5) the obstacles that a customer might experience at each stage.

Figure 13 shows a customer journey chart, where the five stages of a customer's journey are combined with five elements of customer's experience in purchasing seed.

FIGURE 13
Customer journey chart





Application

EXERCISE: VISIT TO A SEED COMPANY

Objectives

Experience how seed business or company usually approach and interact with customers.

Who to involve

Seed business professionals.

How to do it

Organize a visit to a seed business. The exchange is best, if participants have the chance to interact with staff responsible for seed sales. It is also advisable to facilitate the interaction by distributing guiding questions in advance; guiding questions are given in Table 11.

Time needed

- **Instructions:** 10 minutes
- **Preparation in advance to the visit:** 50 minutes
- **Implementation (the visit):** travel time plus a 1–2-hour visit
- **Analysis:** 1 hour
- **Presentation and discussion after the visit:** 10 minutes per group

Materials

- Introduction to the company and the assignment.
- Inform the company on the purpose of the visit and type of visitors.
- Print of the guiding questions for participants.

Resources

MacRobert, J.F. (2009). *Seed business management in Africa.* Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa

TABLE 11
Field visit: customer relations

TOPIC	GUIDING QUESTIONS
Brief company overview	• When established and what is the organizational structure? • What is the product portfolio overview and value proposition (type of product)? • Who are the main competitors; what is the market share?
Marketing strategy and customer relationships	• What are the customer segments? • What products does the business have for the different segments (crops and varieties, packaging, quality attributes)? • What channels do they use for reaching the customers? • What is the pricing strategy? How do they determine the sales price? • What kind of promotion strategy is used? • How is dealt with customer complaints?
Overall performance	• Main strengths • Main weaknesses • Main challenges
Lessons learned	• What is a key take away from this visit? • What was interesting and new for you in this visit? • What would you like to implement in your business?

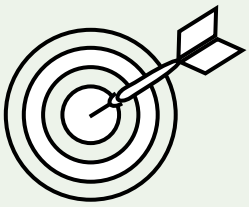
11

Seed BMC Component 7: **VALUE CREATION**

B	A	C
2	3	1
7		6
8	4	10
9	5	11

Key messages

- *Seed production planning needs to be based on future sales targets.*
- *The planned amount of seed to be produced in each seed class needs an additional quantity to cover risks and losses in the production and processing system.*
- *Operational management has the aim of adding value to seed in less time, with less cost, with least losses while maintaining or improving seed quality and utility.*
- *Processing and warehousing needs to be well-organized with supporting documentary records.*



Learning objectives

After the session participants will be able to:

- *plan the production of all seed classes based on future sales projections;*
- *understand key concepts related to seed processing and operational management.*

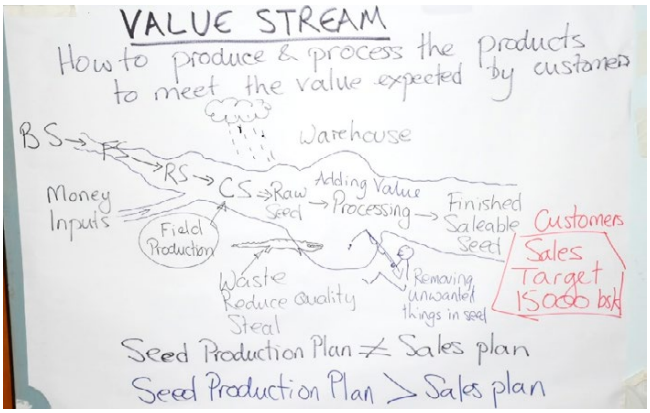
Explanation

VALUE CREATION STREAM

The value creation stream is concerned with creating and adding value to seed. The seed chain consists of different seed classes, starting from breeders' seed (BS), to foundation seed (FS), to (in specific cases) registered seed (RS), and finally certified seed (CS). In Myanmar the Department of Agricultural Research (DAR) is responsible for the development of new plant varieties and the production of BS. Public seed farms of DAR and the Department of Agriculture (DOA) produce FS and RS. Farmer seed producers, local seed businesses and seed companies produce CS. CS produced at seed businesses goes through their processing plants where seed increases its value through cleaning, grading, treating, and bagging, to finally become saleable seed (the finished product).

The figure below (Figure 14) provides a graphic representation of how value is created in the seed value chain by depicting the process of value creation as a river. As the figure shows, the river becomes wider, and so value is added to seed at each stage of the chain.

FIGURE 14
Value creation stream



It is crucial to realise that a great deal of factors may help or hinder a business to add value to seed. Resources for investments in best performing seed or inputs are helpers, for instance. However, external factors (such as challenges related to the climate or flood), and internal factors (such as waste or theft) are hinderances. Both helps and hinderances are likely to occur in the processing station of the seed business. This implies that the business, which has control over the activities performed in the processing station, is accountable for the quality of seed exiting the station and being sold to farmers. In the processing plant, the raw seed that enters should have a lower value than the seed that exits. The only way to ensure this is to monitor and assure quality along the processing path.

SEED PRODUCTION PLANNING

Using the future sales projections, the required quantity of seed that needs to be produced of each seed class can be calculated. The amount of seed is calculated using either standard multiplication rates or making assumptions on the average seed rate and the average seed yield. However, as seed is living material and the production environment is risky in terms of pests and diseases, climate, and yield variability, losses can occur at any stage of production and processing. Therefore, it is prudent to plan to produce more seed than is required or expected to be sold. Usually, the amount of CS production is 10 to 15 % more than the sales target, while for early generation seed (EGS) classes, the planned production may be as much as three times the requirement. This factor is called the "risk reserve". Realizing the importance of EGS for the final result of a production scheme, a seed business must ensure it has enough BS, FS and RS to cover all possible eventualities.

The figure on the right (Figure 15) shows the seed triangle, relating the seed used to the seed rate and the area planted. To use the triangle, think of it like this: If you want to know the answer to one point of the triangle and you have the information for the other two points, then the position of the two known points established whether you multiply or divide the two known points. So:

- seed used = seed rate × area planted
- area planted = seed used / seed rate
- seed rate = seed used / area planted.

To formulate a seed production plan, the first step is to define the future sales targets (Chapter 7, above). Then, the required certified seed production equals the sales target plus the risk reserve. For example, if the sales target is 10,000 baskets, and the risk reserve is 10 %, then the correct formula to use is,

Seed production = sales target / (1 – risk reserve)

e.g. required seed production = 10,000 / (1 – 0.1)
= 11,111 baskets

This required CS production must be produced in the season before the selling season. Based on the expected yield of the CS production, the required area of CS production and the amount of FS required for this area may be calculated using the seed triangle. The FS must be obtained and therefore produced in the season before the CS production. Likewise, the RS and BS required must be produced in the previous seasons. All these calculations may be carried out systematically, so that the amount and area of each of the seed classes can be established from the current season through to the future. An example of this is shown in the figure next (Figure 16).

FIGURE 15
Seed use triangle

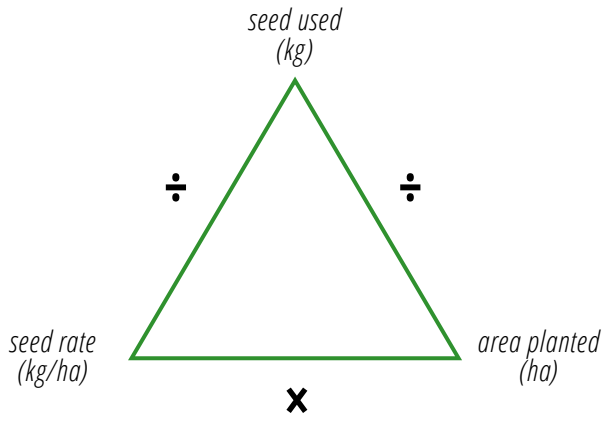
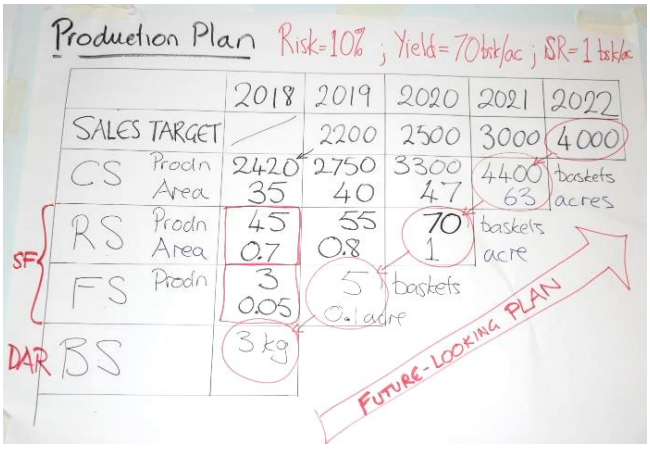


FIGURE 16
Example of a seed production plan



SECURING ACCESS TO EARLY GENERATION SEED

Following the calculation of the seed requirements in the various classes of seed to meet future sales expectations, a seed business has the information required to plan and secure its EGS. For a business that markets proprietary varieties, the BS, FS and RS is produced inhouse under the auspices of the National Seed Authority (NSA). However, for a seed business producing public varieties, the EGS usually needs to be ordered from a public institute. In case of Myanmar, this is generally DOA or DAR. The CS producer ought to place an advance order with the RS and FS suppliers based on their calculated needs. When EGS is under-produced, seed businesses are unable to meet their production plans and ultimately customers will not be able to obtain the CS seed required. In the past, seed businesses may have been reluctant to pre-order their EGS requirements because they had not made realistic sales forecasts or planned their EGS requirements. In such a case, lack of sufficient quantities of EGS hinders development of the seed market.

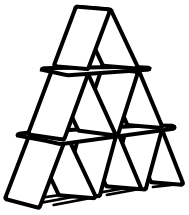
SEED PROCESSING AND WAREHOUSING

When raw seed is produced in the field, it is delivered to the processing warehouse where it is stored, cleaned, and bagged for sale. In some crops, additional steps might include seed size grading (particularly in the case of maize) and treatment with protective and/or yield enhancing chemicals. In this processing of seed, operational management is concerned with doing things more effectively, in less time, for the least cost and guaranteeing highest quality. In addition, processing and warehousing requires a good inventory management system that tracks the identity, quantity, and location of stock at all stages of processing. At the root of this is the assignment of lot numbers to raw seed, as defined by crop, variety, seed class, source, year of production and quantity. During processing and storing seed in a warehouse, management must be concerned with avoiding losses through spillage and spoilage, avoiding dead stock that can no longer be sold, and avoiding human errors in miscoding, mislabelling and poor processing. A key aspect of inventory management is labelling bags, maintaining bin cards on seed stacks, and recording stock quantities and movements in an inventory database.

KEY PERFORMANCE INDICATORS

During production and processing management ought to be concerned with evaluating performance. To do this, two kinds of key performance indicators (KPI) are defined: (1) result indicators that are historic and relate to the physical properties of a product, such as germination percentage, and (2) process indicators, which are rate-based, such as baskets per hour, that are current, predictive, and directly affect results or output. When defining and selecting KPIs, they must be:

- relevant to users;
- achievable and realistic;
- easy to obtain and respond to;
- have an “owner” who is responsible for data collection and reporting on; and
- regularly reviewed.



Application

EXERCISE: DEVELOPMENT OF A SEED PRODUCTION PLAN

Objectives

Develop a seed production plan for different classes of a seed business, using Table 12.

Who to involve

Seed production managers and sales managers.

How to do it

This exercise can be done individually or in group. In a group setting, two options can be used: divide participants into as many groups as there are (a) years of seed production to be planned (each group will work on their given year); or (b) production plans of different crops (each group will work on their given crop; in this case, assumptions on seed rate, seed yield and sale target should be adapted to the crop chosen). Each group works individually and presents in plenary the estimated demand for the different crops.

The required quantity of seed to be produced is calculated using sales targets in the different years and using the following three assumptions:

1. *Crop (rice) yield rate = 70 baskets / ac*
2. *Seed rate = 1 basket / ac*
3. *Risk reserve factor of 10 %*

Step 1: Required certified seed production
From the sale target of a given year, it is possible to calculate the required amount of CS. This should be equal to the amount of seed to be sold (seed sale) plus a certain quantity of seed reserved in case of losses (risk reserve). Provided the sale target and risk reserve, required seed production is found as follows:

required seed production =
sales target / (1 – risk reserve)

In our example,
required seed production = 16,000 / (1 – 0.1)
= 17,777 baskets

TABLE 12
Format for a seed production plan

		Season 1	Season 2	Season 3	Season 4	Season 5
Sales target		8,000	10,000	12,000	14,000	16,000
CS	Production (baskets)	11,111	13,333	15,555	17,777	
	Area (ac)	158	190	222	254	
RS	Production	211	247	282		
	Area	3.0	3.5	4.0		
FS	Production	3.9	4.4			
	Area	0.05	0.6			
BS	Production	0.07				

Step 2: Area planted
As the seed use triangle describes, from the seed produced, the area needed to cover that production can be found by using the following formula:

area planted = required seed produced / seed yield

in our example,
area planted = 17,777 / 70
= 254 ac

Step 3: Required registered seed production and the area planted
It is assumed that seed rate is equal to 1 basket/ac, thus on an area of 254 ac, the estimated production of registered seed is 254 baskets. Likewise for certified seed, the amount of required registered seed and the corresponding area planted are found as follows:

required seed production = 254 / (1 – 0.1)
= 283 baskets

area planted = 283 / 70
= 4.0 ac

Step 4: Calculate required production and area for foundation and basic seed and repeat the exercise for all years.

Time needed

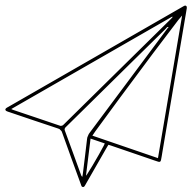
» **Instructions:** 15 minutes
» **Implementation:** 30 minutes

Materials

» One large sheet of paper per each group with a copy of the table.
» Markers.

Resources

MacRobert, J.F. (2009). *Seed business management in Africa.* Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa



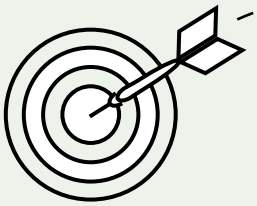
Key messages

- *Value or quality assurance establishes systems that will ensure seed meets and exceeds customer expectations.*
- *Concern for quality must pervade all activities of a seed company.*
- *A value assurance system is a systematic way of preventing defects or mistakes and ensuring quality in all manufacturing activities, products, and service delivery.*

12

Seed BMC Component 8: **VALUE ASSURANCE**

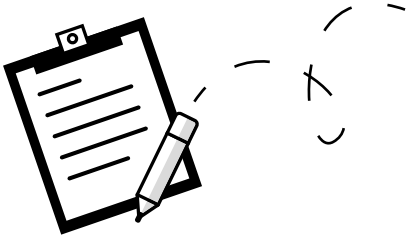
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *define seed quality and the components of seed quality;*
- *appreciate quality management systems within a seed business, such as a quality policy and quality procedures.*



Explanation

VALUE (OR QUALITY) MANAGEMENT SYSTEM

Value assurance aims at consistently meeting and exceeding customer expectations. Seed businesses not only need to give customers basic quality attributes but also to provide a superior product experience, ensuring customer satisfaction and even delighting customers. Quality is usually defined as fitness for use as defined by the customer, or uniformity of performance around a target value. Another way to look at quality is the "degree to efficiency", implying that the higher the quality of the product, the greater the efficiency in achieving value and the degree to which the product meets customers' expectations. In the seed sector, the National Seed Authority specifies basic quality standards, but these are usually less than what customers expect.

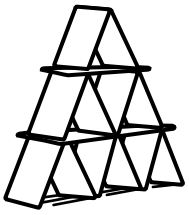
A value management system is a systematic way of preventing mistakes/errors or defects and ensuring value in the products. The main components of a value management system (VMS) can be identified as:

1. quality policy – a brief statement that expresses the company's commitment to quality (value);
2. quality assurance procedures – methods and processes of doing work to meet quality standards;
3. quality standards or specifications for all products and processes (some of which are set by the seed regulations, and others will be internal standards);
4. control procedures using documents, corrective and preventative actions, and root cause analysis; and
5. work instructions for every step in a process.

It is worth pointing out that point 1 has to do with the motivation and willingness, while point 2 has to do with enabling and implementing what we do.

In each stage of seed production and processing there is an activity with inputs and outputs. In a VMS, there should be quality checks at the input and output points of the process, and defined procedures for the activity. This will prevent sub-quality products from entering an activity, ensure that the activity is carried out in such a way that quality should be assured, and then a quality check on the output products to ensure that they meet required standards.

Lastly, it is important to instil an ethos of quality throughout a seed business, and to make it mandatory for any person to stop a process if quality is being compromised. By doing so, the idea that quality is more important than quantity trickles down from the top to the lowest level of management chain.



Application

EXERCISE: DESIGNING A SEED QUALITY SYSTEM

Objectives

Identify the company's commitment towards product quality and develop a system to ensure quality is reached and maintained throughout production.

Who to involve

Field and warehouse managers, operations experts, employees whose tasks are related to production and seed processing.

How to do it

The facilitator explains that this exercise is divided in two parts. First, a quality policy statement is formulated; then a flow chart is used to design quality procedures applied to two cases – field inspections and sampling for germination.

The facilitator divides participants in two groups, each working on one case. Two flipcharts per group are distributed.

The facilitator explains the aim and the basic elements of a flow chart. A flow chart is a tool that supports decision making processes. It shows the steps to carry out a process using diagrams of various types. Each diagram has a different shape and meaning. In a flow chart, diagrams are placed in a chronological order. In addition, a flow chart includes special diagrams indicating the supporting documents needed to give instructions and perform actions in a standard way.

In the simplest formulation, a flow chart includes four symbols, as described in Table 13. An example of a quality procedures flow chart is given in Figure 17.

TABLE 13
Flow chart symbols

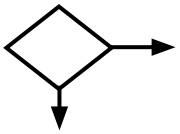
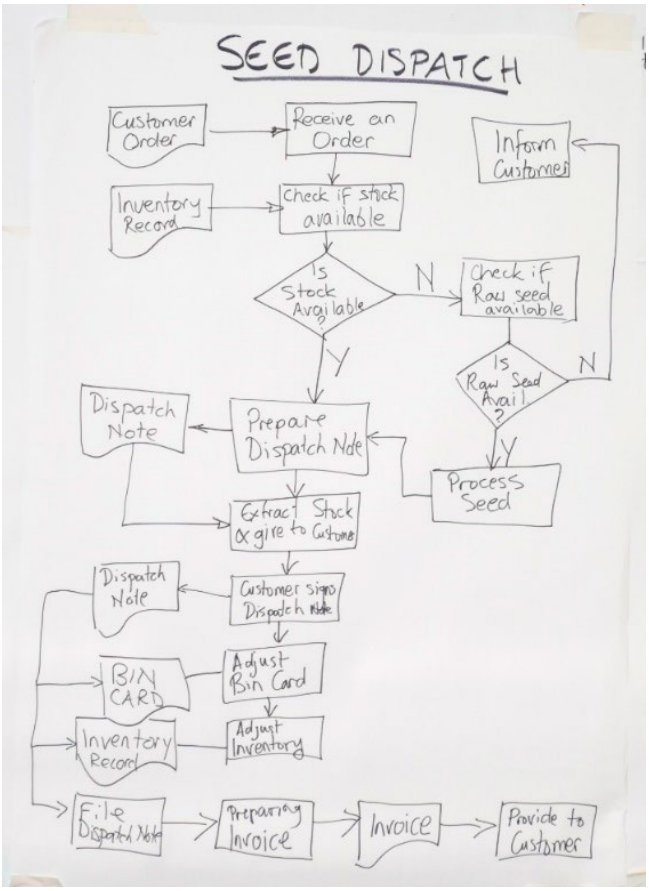
	shows the order of the process
	indicates the beginning/end of the process
	describes the action to take
	shows a choice to make, by formulating a question. The answer is either yes or no. The arrows show the path to choose corresponding to the chosen answer, yes or no
	indicates the supporting document needed to perform the action or the output information from the process

FIGURE 17
Example of a flow chart. The case of seed dispatch procedure



Participants:

Step 1: After brainstorming, each group develops a quality policy statement by indicating:

» what the group means by seed quality
» how it is operationalised in practices
» what measures should be in place to ensure quality is achieved and maintained.

Step 2: Each group develops a flow chart in relation to their case.

Step 3: In plenary, each group presents the quality statement and flow chart of quality procedures flip-charts.

Step 4: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

Time needed

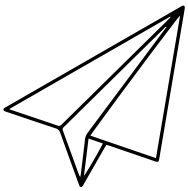
» **Instructions:** 10 minutes
» **Implementation:** 45 minutes
» **Presentation and feedback:** 10 minutes per group

Materials

» Two flipcharts per group and markers.

Resources

MacRobert, J.F. (2009). *Seed business management in Africa.* Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa



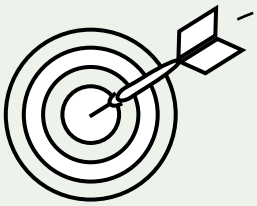
Key messages

- *Seed businesses incur costs of seed production and processing, and operational costs.*
- *The cost of raw seed is usually the largest cost in a seed company.*
- *Operational costs relate to business functions (sometimes called overheads) and need close control because they can easily consume the margin between seed sales and seed cost.*

13

Seed BMC Component 9: **COST STRUCTURE**

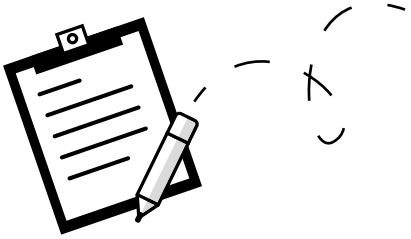
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *Understand the principal cost structures of a seed business.*



Explanation

DIFFERENT COST COMPONENTS

The costs of a seed business are usually divided into two components: (1) the cost of goods, and (2) the operational costs. The cost of goods relates to the field production costs to produce raw seed, and the processing costs needed to achieve saleable seed. The operational costs relate to all aspects of the business that are necessary to function, regardless of how much seed is produced and sold.

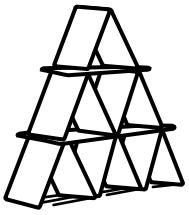
The cost of raw seed depends on whether the seed is produced on the seed business's own land or by contract growers.

Where seed is produced on the business's farm, the costs incurred are the field costs of production, such as land preparation, fertilisers, agrochemicals, labour, irrigation and harvesting.

When seed is procured from contract growers, usually the seed costs are per unit quantity purchased. The production of seed by a business on its own land is usually cheaper than contracted production, and it gives the business more control over the production, but it may limit the amount of seed that can be produced because land area may be limited. Contract production enables a larger production capacity, but requires competent seed growers, good oversight control, and is usually expensive. The payment made to growers may be based on the grain price plus a margin, or the cost of production plus a margin. In addition to the straight field production costs, there are costs associated with registering seed fields with the National Seed Authority, costs of carrying out quality assurance procedures, such as inspections and rouging, and costs of seed packaging and transport from field to warehouse.

Processing costs involve storage costs, operation of processing equipment, handling costs and inputs required, such as packaging and chemicals. In general terms, the cost of production is the largest cost in a seed business, with processing costs relatively small, depending on the amount of processing and storage required. **Operational costs** include marketing costs, office costs, salaries, rentals, electricity, IT, vehicles, and so on. Generally, operational costs will be small in comparison to production costs, especially in a seed business producing certified seed in large quantities. Nevertheless, operational costs can easily become a problem to profitability and sustainability if not controlled.

In terms of proportion of costs to revenue, the raw seed should be around 50% of income, and operational costs around 25% of income, such that the gross profit is about 25%.



Application

EXERCISE: UNDERSTANDING COST STRUCTURE OF A SEED BUSINESS

Objectives

Compare and discuss the differences in costs structure when production of raw seed is done on the company's land or through contract growers.

Who to involve

Field and warehouse managers, operations experts as well as those employees whose tasks are related the production and processing of a seed business.

How to do it

The facilitator divides participants according to two scenarios. In the first scenario, a company produces raw seed on its own land. In the second scenario, a company decides to have outsourced raw seed by contract growers.

Participants:

Step 1: Each group identifies and lists the costs of goods and costs of operations associated with their assigned scenario. An example of costs of goods and operational costs that might apply to either scenario is:

COSTS OF GOODS	OPERATION COSTS
• land preparation • fertilizers and other chemicals costs • seed transport to warehouse • field inspection costs • purchase of raw seed from seed growers • quality assurance trainings • quality assurance protocols • processing equipment • costs of harvest • costs of threshing • etc.	• administration costs of purchasing seed • communication and marketing costs • insurance • agronomy services • warehouse rent • electricity and water • research and development costs • etc.

Step 2: In plenary, each group presents the costs structures for its scenario to the audience.

Step 3: At the end of each presentation, the audience asks clarification questions, provides feedback and/or shares comments.

This exercise points out that in both scenarios, a company bears the cost of goods and costs directly affecting operations. A company producing its own raw seed will have greater production costs which will increase the cost of goods; while if raw seed is purchased, a company will need to manage a higher level of operational complexity, leading to increased operation costs.

Time needed

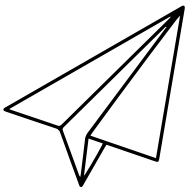
» **Instructions:** 10 minutes
» **Implementation:** 45 minutes
» **Presentation and feedback:** 10 minutes per group

Materials

» Two flipcharts per group, coloured cards, and markers.

Resources

MacRobert, J.F. (2009). *Seed business management in Africa*. Harare, Zimbabwe: CIMMYT. http://dtma.cimmyt.org/index.php/publications/doc_view/87-seed-business-management-in-africa



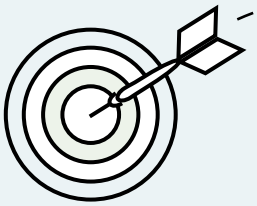
Key messages

- *Seed businesses do not operate in isolation but are highly dependent on key partners.*
- *Partners may be input suppliers, regulators, supporters, and influencers.*
- *Establishing, building, and working with partners will enable seed businesses to function more effectively.*

14

Seed BMC Component 10: **KEY PARTNERS**

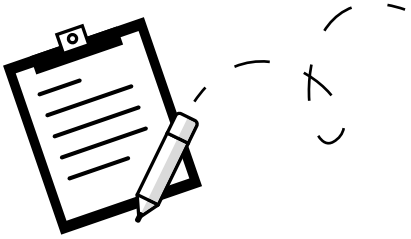
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *recognise the importance of key partners in a seed business (i.e., suppliers, regulators, supporters, and influencers)*
- *identify the key partners; who they are, why they are important and what are key strategies to maintain and build relationships.*



Explanation

STRATEGIC SEED BUSINESS PARTNERS

Seed businesses rely on strategic partners to function effectively. Partners may be grouped as follows:

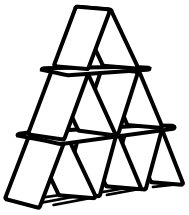
1. **Suppliers** – these provide necessary inputs into a seed company. In prime place are contract seed growers, and these must be managed carefully to ensure adequate supplies of quality seed are provided. Where a seed company relies on a third party to provide EGS, such partners are essential, and must be nurtured and seen as integral participants in the business. Other suppliers include agro-chemical companies, packaging companies, sundry goods suppliers and machinery and maintenance companies. Banks must also be considered as important suppliers of financial services, as must accounting firms.

2. **Regulators** – these are the various government agencies that regulate the seed sector and business operations. Prime place is given to the seed regulator because they administer the national seed laws, and the seed business must conform to their standards and regulations. Consequently, it is important to view the regulators as strategic partners.

3. **Supporters** – these include both government and non-government agencies that are directly involved in the seed sector or with customers. Examples include national extension services, NGO projects, and output market players who want their grain supplies produced from quality seed. Important supporters include seed trade associations, either national, if it exists, or international.

4. **Influencers** – these are the various institutions and people that influence the seed sector and agricultural economy, such as politicians, ministries of government, farmers' associations, international conventions, and so on.

A seed business needs to identify these key partners, understand their importance, and manage relationships with them in a synergistic way.



Application

EXERCISE:

Objectives

By performing a stakeholder analysis and using a power-impact chart, identify who are the key partners of a seed business and analyse their influence in the seed business.

Who to involve

Management as well as employees, regardless of their roles or responsibilities.

How to do it

Step 1: The facilitator designs a four-quadrant chart, where each quadrant is one of the four key partners of a seed business (suppliers, regulators, supporters, and influencers). Ask participants to name and list all partners active in the seed sector of their geographic area of influence. An example of key partners is given in Table 14.

TABLE 14
Key Partners detailed

Suppliers: • fertilizer companies • pump distributors • etc.	**Regulators:** • seed regulatory body • unions • seed trader association • etc.
Supporters: • banks • NGOs • international development institutes and foundations • etc.	**Influencers:** • national seed platforms • DAR research institutes • seed policy makers • etc.

Step 2: The facilitator introduces the impact-power chart by giving the definitions of 'power' and 'influence' of partners over a business.

Power: *"When a partner has power over your business, it affects the goals and scope of your business. It can determine the extent to which and how your business operates in the seed sector. It influences the boundaries of your operations. It influences the long-term high-level decisions your management department can take to play the market game".*

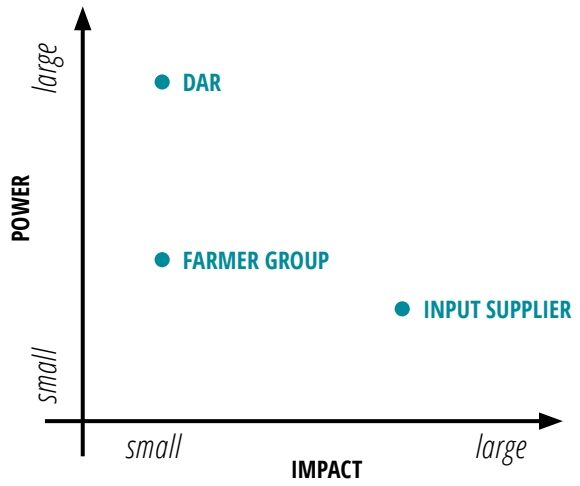
Impact: *"Impact is linked to the outcomes of a seed business. If a partner has impact over your business, it can directly increase/decrease your outputs and production. It can make your operations easier and faster or creates difficulties and provoke delays. An impacting partner exercises a positive/negative influence on your short-term plans and activities".*

Step 3: The facilitator draws a Cartesian chart where the horizontal line represents impact, and the vertical line represents power.

Step 4: Participants reflect on the degree of power and impact of each partner listed above and place them all on the Cartesian chart.

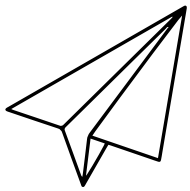
Step 5: The facilitator reflects on the outcome of the exercise. Some partners have a little power but large impact. For instance, if a large supplier stops providing your business with the inputs you need, your production target will not be met, and you will not be able to sell the quantity of seed you planned. However, your business goal remains the same and you still intend to work with a given seed product. Another example of partners with little power and large impact can be extension services.

On the contrary, other partners have large power but small impact. Imagine that DAR release a new drought resistant variety that is particularly relevant to a township where you have a small market share. The new released variety is superior to the one you produce, however, your potential in that township is limited. As your market share in that township is small, when customers start buying the new variety it will only have a limited impact on your national level sales. However, in the long run, the DAR' new variety release influence customers' choices so much that you want to consider shifting your production towards the best-performing variety and increasing your investment in the market of that townships.



Resources

Osterwalder, A., Pigneur, Y (2013). *Business Model Generation*. Hoboken, NJ: Wiley. https://docs.google.com/file/d/0B4E64nqKSeljZWtBZnpraGtqS0k/view?resourcekey=0-CJwqi3OuA4eKFjg9l82yjQ



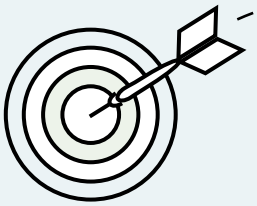
Key messages

- *Resources are all things you need to operate a business, including infrastructure, human resources and working capital.*
- *Resources needed are based on the gap between what is needed and what is available.*
- *Overall business budgeting of income, costs and capital expenditure is the final stage of the business plan.*

15

Seed BMC Component 11: **KEY RESOURCES**

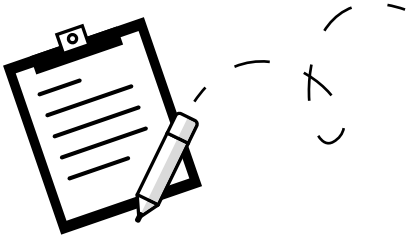
B	A	C
2	3	1
7		6
8	4	10
9	5	11



Learning objectives

After the session participants will be able to:

- *understand the importance of defining and planning the acquisition of key resources needed to carry out the business plan.*



Explanation

KEY RESOURCES

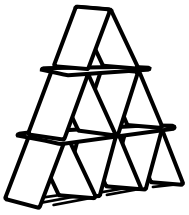
As indicated in the introduction to the seed business model, the strategies of a seed business build upon the resources available to the seed business. In many instances, especially if the plan takes the business beyond its present capacity, there is a need to develop the infrastructure of the company, recruit and train new employees, and harness more working capital. In each case, the business needs to evaluate what is required for the implementation of the plan, evaluate present resources, and establish the gaps that need to be filled. Once these gaps are identified, a plan needs to be put in place for their acquisition and management.

Infrastructure requirements depend directly on the scale of production. There are some well-established guidelines for planning purposes, such as land area requirements for seed production (based on the expected yield), processing equipment needed (based on the processing window and quantity of seed to be processed in a defined manner), and warehouse space (based on storage requirements).

For example, if the planned production is 12,000 baskets, and the average yield is 70 baskets/acre, then an area of 171 acres is required. At the same time, if the processing plant has a three-month window, assuming 20 days of 8 hours per month, the machinery must be able to process at least 25 baskets per hour without downtime.

When reviewing the human resource needs of a seed business, a well-defined organisation chart such as a RACI table (defining tasks and setting out who is responsible, accountable, consulted, and informed) is helpful. From these a gap analysis of positions and capacity building needs may be defined.

Finally, as the seed business plan is fleshed out, a budget will be developed of income, costs, and capital expenditure. This will establish the need for working capital financing and form a basis for seeking financial support.



Application

EXERCISE: RACI TABLE

Objectives

Explore the job profile of staff in a seed company and understand the different roles and responsibilities of each staff in relation to a given task, by using a RACI table.

Who to involve

Experts in human resources and management.

How to do it

The facilitator explains what a RACI table is. RACI is an acronym that stands for Responsible, Accountable, Consulted, and Informed.

Step 1: These are four roles and/or responsibilities that can be performed in relation to a task, specifically:

Responsible: the person who does the work to accomplish the task.

Accountable: the supervisor, who does not do the work, but monitors, evaluates and approves the final decision made by the person responsible for the task.

A *consulted* person is someone who has an external and secondary role in the process. He/she is included only when the responsible and accountable person requires information or needs feedback or suggestions. Consulted persons are often experts in a specific aspect of the matter at stake. Examples are extension officers, DOA regional officers, or bank consultants.

As the consulted person, the *informed* person is also external to the process undertaken to complete the task. He/she has one-way communication with the responsible and the accountable person. Informed persons are affected by the outcome of a task, and they need to be kept up to date.

The first column shows the list of tasks to be performed. The first row shows all the job profiles existing in the company. For each task, what type of role and responsibilities are performed by each job profile is shown: R = responsible, A = accountable, C = consulted, I = informed.

Step 2: Facilitator: divide the participants into groups according to their company/seed producer, so that they are thinking about their organisation when they do this exercise. To each group, the facilitator hands out the following template of a RACI table (Table 15).

Step 3: Each group completes the table

Step 4: Each group gives feedback to each other.

TABLE 15
RACI table template

RACI	CEO	Ware-house manager	Seed threshing operator	Seed moving operator	Seed cleaning operator	Field Manager	Worker	Quality control manager	Stock manager	Admin-istrative staff
TASKS										
Raw seed inspection	I	I	–	–	–	–	R	C	R	I
Etc.										

Time needed

» **Instructions:** 10 minutes
» **Implementation:** 45 minutes
» **Presentation and feedback:** 10 minutes per group

Materials

» One flipchart per group, coloured cards, and markers.

Resources

Osterwalder, A., Pigneur, Y. (2013). *Business Model Generation*. Hoboken, NJ: Wiley. https://docs.google.com/file/d/0B4E64nqKSeljZWtBZnpraGtqS0k/view?resourcekey=0-CJwqi-3OuA4eKFjg9l82yjQ

Jacka, M., Keller, P. (2009). *Business Process Mapping: Improving Customer Satisfaction*. John Wiley and Sons. p. 257. ISBN 0-470-44458-4.

16 CONCLUSION

Supporting farmers in acquiring a business orientation is the focus of many projects in Asia and Africa. The seed sector in developing countries often is driven by the assumption that more production is needed and by many, regardless of the quality. This manual departs from a different assumption: to sustain a healthy and active seed sector, seed producers must aim to bring quality seed to the market.

Moreover, as with other sectors, resources must be planned and managed in a way that the seed business is efficient and financially viable. To make this possible, seed businesses ought to take a demand-driven business orientation. Farmers seed producers, local seed business as well as seed companies are all better able to perform in market competition if business is oriented towards basic management principles.

By exploring the different blocks of the seed business model canvas, we addressed the management aspects for a successful seed business. In Block 1 we clarified that good seed business requires well defined vision, virtues, and vitals, describing what it is that the company wants to achieve in doing business in the seed sector.

We then looked in Block 2 at how to concretively set a demand-driven seed business. We first examined the customer profile chart to analyse customer segments and identifying the jobs to be done by each segment. Thereafter, we explored how to define value propositions and product attributes that meet customers' requirements in terms of quantity and quality, by using a value proposition canvas. By minimizing and overcoming the pains of the job to be done, seed producers ensure that their seed has the value customers want.

Block 3 addressed sales targets – how to link customers with the seed products that the business is able and willing to provide. We explained how, in a few easy steps, seed businesses can estimate seed demand for a given customer segment. We also pointed out that sales targets must exceed the actual seed demand. As EGS need to be acquired in advance, farmer seed producers must consider possible losses. At the same time they must set ambitious, though realistic, targets to achieve their business visions.

In Block 4, we highlighted that direct and indirect distributor systems are pivotal in ensuring that sales targets are achieved. An analysis of marketing channels is essential to bring seed to the final consumers. In addition, by properly examining the different type of channels, seed businesses can optimise collection of revenues.

The revenues stream was the fifth block; here we provided a way to calculate the breakeven price and quantities that seed businesses operate on a cost-recovery basis. In conclusion of the chapter, we also proposed a tool to reflect on the advantages and disadvantages of cash, credit, and consignment stock as types of payment.

The sixth block of the seed business model canvas was dedicated to customer relations. In this session, we pointed out that not all farmers in the market are actual customers but that customers are as such only when a sale actually occurs. By using the sales funnel framework, seed businesses can filter out farmers to the point of identifying actual customers. In the final part of this chapter, we explored how getting a better understanding of the journey of a typical customer during his/her purchase experience is essential for acquiring new customers.

In order to produce certified seed, registered seed, foundation seed and basic seed need to be produced in advance. Therefore, a realistic production planning of the different seed classes is essential. First in the Block 7 (value creation), then in block 8 (costs structure), we addressed the topic of seed requirements and costs of production by making assumptions with the seed use triangle and using a simple methodology for seed production planning.

To acquire and maintain seed value is another important aspect of seed business. In the ninth block, about value streams, we highlighted that putting in place a value (or quality) management system must be priority number one for seed producers that aim to deliver quality seed to the market.

We concluded this manual by providing a tool to assess the power and influence of strategic partners for seed business (Block 10) and by setting out the key resources for a seed business (Block 11).

Seed business is complex. Producing and supplying the market with seed of the quality and quantity demanded by farmers, requires a clear vision and demand driven management practices.

The seed business model canvas provides professionals who aim to strengthen the business orientation of seed farmers with a simple, ready to use tool to address the management aspects of a seed business. In its simplest use, the canvas is useful to present and describe the status quo of a seed business. Yet, it can also be used to monitor the business performance over time. By continuously updating the eleven blocks of the seed business model canvas, managers of seed business can validate information on customer segments and their requirements in terms of seed. With such information, managers can revise production and marketing plans. By using the seed business model canvas, seed producers will be better equipped to perform constant monitoring in a structured manner. As a result, a viable and sustainable business model can be created, and the business vision of seed producers achieved.

The theory and practical tools included in this manual provide guidelines to develop an experienced-based training to support farmers in strengthening their business orientation and their ability to succeed in seed business.