

# **Preparation of budget, sensitivity analysis, budgeting toolkit, and determination of capital for commissioning entity**

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<p>This Bachelors' thesis deals with financial budget development and analysis for a commissioning entity. The main objective was to identify and evaluate the financial viability of alternative modes of operation, analyse the most preferred operating mode, and provide the commissioning entity with a toolkit to facilitate independent budgeting and analysis.</p> <p>The thesis consists of a theory section and an empirical section. The theory section describes business model canvas, master budget, cost behaviour, and sensitivity analysis, income tax and capital requirement theories. The empirical section deals with developing deliverables as per thesis' objectives by describing the modes of operation, creating, and evaluating the financial budgets, conducting sensitivity analysis, and creating a budgeting toolkit. The toolkit would enable the user to create, maintain, and analyse a financial budget.</p> <p>An interview and discussions with the business owner were primary research methods used in this project. Secondary research method in the form of desktop research also used to collect and confirm data for budgeting and analysis. The budgeting toolkit and supporting user guide were created by using Microsoft Office (Excel and Word respectively).</p> <p>Two potential modes of operation were identified based on the choice of product delivery channel (traditional and online retail shop). A traditional retail shop proved unfeasible due to high cost structure and low revenue estimations. An online retail shop showed promising results (among other things) with net profit margin projection of 23% and 26% (first and second year). Break-even would be reached in the second quarter of the first year if the likely scenario holds true. Consequently, commissioning entity was able to rule out an impractical implementation (traditional retail shop), get an estimate of the capital (€ 2 720) sufficient to run the business under the stated projections. Furthermore, the entity was able to identify product groups whose contribution margins and sales mix may create significant impact on financial performance if actual sales would be above or below budget</p>	
<b>Keywords</b> Budgeting, Break-even, Margin of Safety, Capital, E-commerce, Business Model Canvas	

## Table of contents

Abbreviations.....	1
1 Introduction .....	2
1.1 Background.....	2
1.2 Thesis Topic .....	3
1.3 Project Scope .....	4
1.4 International aspect.....	5
1.5 Anticipated Benefits .....	5
1.6 Key concepts .....	7
1.7 About Commissioning entity.....	8
2 Relationship of theories and models to project implementation .....	9
2.1 Determination of operating modes through Business Model Canvas.....	10
2.2 Cost behaviours and their implication to business.....	14
2.3 Budgeting through Master Budget.....	16
2.4 Income tax for a private entrepreneur .....	22
2.5 Capital determination .....	24
2.6 Sensitivity analysis.....	24
3 Design of project implementation .....	28
3.1 Rationale for the approach selected.....	29
3.2 Information and informant(s) .....	29
3.3 Interview themes.....	30
4 Modes of Operation and cost structure.....	31
4.1 Online retail shop .....	32
4.2 Traditional retail shop.....	33
5 Budget development and estimation of capital .....	34
5.1 Online retail shop .....	35
5.2 Traditional retail shop.....	38
5.3 Capital estimation .....	39
6 Sensitivity and profitability analysis .....	41
6.1 Break-even point and Margin of safety for likely scenario.....	42
6.2 Break-even, margin of safety and profitability for pessimistic scenario .....	43
6.3 Break-even, margin of safety and profitability for optimistic scenario.....	43
7 Project Evaluation .....	45
References .....	47
Appendices.....	51
Appendix 1. Gantt chart for thesis writing process.....	51
Appendix 2: Interview questions.....	54
Appendix 3. Summarized findings of the business operating modes .....	58
Appendix 4. Sales budget and COGS, inventory and purchases budget .....	60

Appendix 5. Online shop (operating expenses, income statement, and financial budgets) .....	63
Appendix 6. Income tax calculations .....	70
Appendix 7. Traditional retail shop (operating expenses, income statement, and financial budgets) .....	73
Appendix 8. Budget Notes .....	80
Appendix 9: Combined Cash budget ending balances for optimistic and pessimistic scenarios.....	82
Appendix 10. Contribution margin calculations for likely, optimistic, and pessimistic scenarios.....	84
Appendix 11. Budgeting Toolkit and User guide .....	89

## Abbreviations

PT	Project Task
BMC	Business Model Canvas
COGS	Cost of Goods Sold
Etera	Mutual Pension Insurance Company
Elo	Mutual Insurance Company
GDP	Gross Domestic Product
HBSPress	Harvard Business School Press
MOS	Margin of Safety
POS	Point of Sale
SHRM	Society for Human Resources Management
WACMR	Weighted Average Contribution Margin Ratio
VAT	Value Added Tax
VERO	Verohallinto (Tax administration)

# 1 Introduction

This chapter introduces a thesis project carried out for a commissioning entity; it contains a brief background of the project, its international aspect, objectives, tasks, and resultant anticipated benefits for both commissioning entity and thesis writer (herein referred to as project manager). The key concepts applied throughout the project are described thereafter, to provide guidance to the user of the thesis. The theoretical part of this thesis focuses on literature review and project implementation design. The empirical part deals with the project implementation in line with the project objectives.

## 1.1 Background

Entrepreneurship plays a significant role in reducing unemployment and increasing productivity in a country's economy (Reynolds, Storey & Westhead 1994, 343). In times of economic crisis, large corporate companies are forced to undertake cost reduction in order to remain competitive and relevant in the markets they operate. Consequent impact of such a measure is high unemployment rate and decrease in GDP.

Until recently, Finland has been relying on a few multinationals to drive its economy. In year 2000, Nokia, contributed 4 percent of Finland's GDP (The economist 2013). The 2008 global economic crisis resulted in operational downsizing of large companies leading to unemployment. To counteract this phenomenon, Finnish government created policies that supported growth of entrepreneurship to diminish dependency on conglomerates, and foster growth in employment and productivity. As a result, many start-up companies have been established since.

A sentiment exists that although Finland has many start-up companies, majority do not show enduring growth or high performance. (The economist 2013; Autio 2009, 1). There are several reasons why start-up companies do not take off successfully or show high growth. Some of these reasons are, having wrong product or strategy, unmotivated management and highly inaccurate forecast in investment and working capital.

Due to such findings above, and personal plans for entrepreneurship, the project manager was motivated to apply academic knowledge through thesis process to assist start-up businesses in resolving their financial budgeting needs. Through provision of financial budgets, the start-up (commissioning entity) can gain financial insight to the viability of strategy or business idea. Using the outputs from thesis project, the commissioning entity

can proceed to strategy execution or re-evaluation where necessary; hence, solving one of the common potential failure points for start-ups.

## 1.2 Thesis Topic

The commissioning entity that has collaborated with the project manager requires a financial budget for alternative business operating modes. These financial budgets would assist in evaluating the viability of planned strategies, determining capital needs, analysing the profitability and break-even points, among other things. Furthermore, the budgets may be used as templates by the commissioning entity to refine financial data where necessary, in order to re-align the data to any strategic changes that may occur.

Therefore, project objectives have been formulated into a statement below:

**“Preparation of budget, sensitivity analysis, budgeting toolkit, and determination of capital requirement based on selected operating mode”.**

The Project objectives will be achieved through the project tasks below:

- PT 1: to design theoretical framework
- PT 2: to design implementation method and project timeline
- PT 3: to identify the possible modes of business operation and their related cost structures to be factored in the budgeting process
- PT 4: to prepare a master budget related to identified operating modes, and estimate capital needs for the preferred operating mode out of those that were identified.
- PT 5: to prepare sensitivity analysis and evaluate profitability for selected operating mode
- PT 6: to prepare a budgeting toolkit and training material (user guide)

The relationship between the project tasks, theories, project management methods, and outcomes can be seen in an Overlay Matrix below (Table 1). An implementation plan for the project tasks mentioned above was prepared using Gantt chart as described in appendix 1.

Table 1. Overlay Matrix

<b>Project Tasks (PT)</b>	<b>Theory</b>	<b>Project Management Method/ tool</b>	<b>Outcome</b>
<b>PT 1:</b> to design theoretical framework	Not applicable	Literature review (Secondary research)	2.1, 2.2, 2.3, 2.4, 2.5, 2.6,
<b>PT2:</b> to design implementation method and project timelines	Not applicable	Microsoft Project Microsoft Visio Microsoft Excel	3.1, 3.2, 3.3, appendix 1 – appendix 2
<b>PT 3:</b> to identify modes of business operation and cost structure	2.1	Primary research (interview)	4, appendix 3
<b>PT4:</b> to prepare a master budget and estimate capital needs	2.2, 2.3, 2.4, 2.5	Primary research (Interview) Secondary research Documentary analysis	5, appendix 4 – appendix 8
<b>PT5:</b> to prepare sensitivity analysis and evaluate profitability	2.2, 2.6	Primary research (Interview)	6, appendix 4 & appendix 10
<b>PT6:</b> To prepare budget toolkit and user guide	2.2, 2.3, 2.4, 2.6	Secondary research Microsoft Excel Acrobat Reader Microsoft Word	appendix 11

### 1.3 Project Scope

A diagrammatic view of the project scope is as indicated Figure 1 below. The financial budget framework (master budget) suitable for merchandize companies will be used in this project. Details of capital structure will not be available (incorporated) in the budget implementation since decisions on capital sourcing will be finalized in the future. Therefore, the business owner will require flexibility of incorporating capital structure within the master budget once decisions on capital sourcing are completed. Determination of capital will therefore provide the business owner with a capital estimate for which a capital structure can later be determined. The operating modes identified in this project should not be confused with scenario planning; instead, they should be viewed as ways of conducting business operations for which financial budget is required. Scenario planning is a broader subject that aims to provide alternative futures of business environment that would be key in guiding strategy (Wade & Wade 2012, 10) and as such, it is out of the project's scope. Financial data that reflect the optimistic and pessimistic scenarios will be provided by the business owner, and will be used for determining capital requirements. Information related



to stock levels will have to be estimated at this time. The project will not extend to inventory management system although commissioning entity has some few stocks in possession from test trial phase.

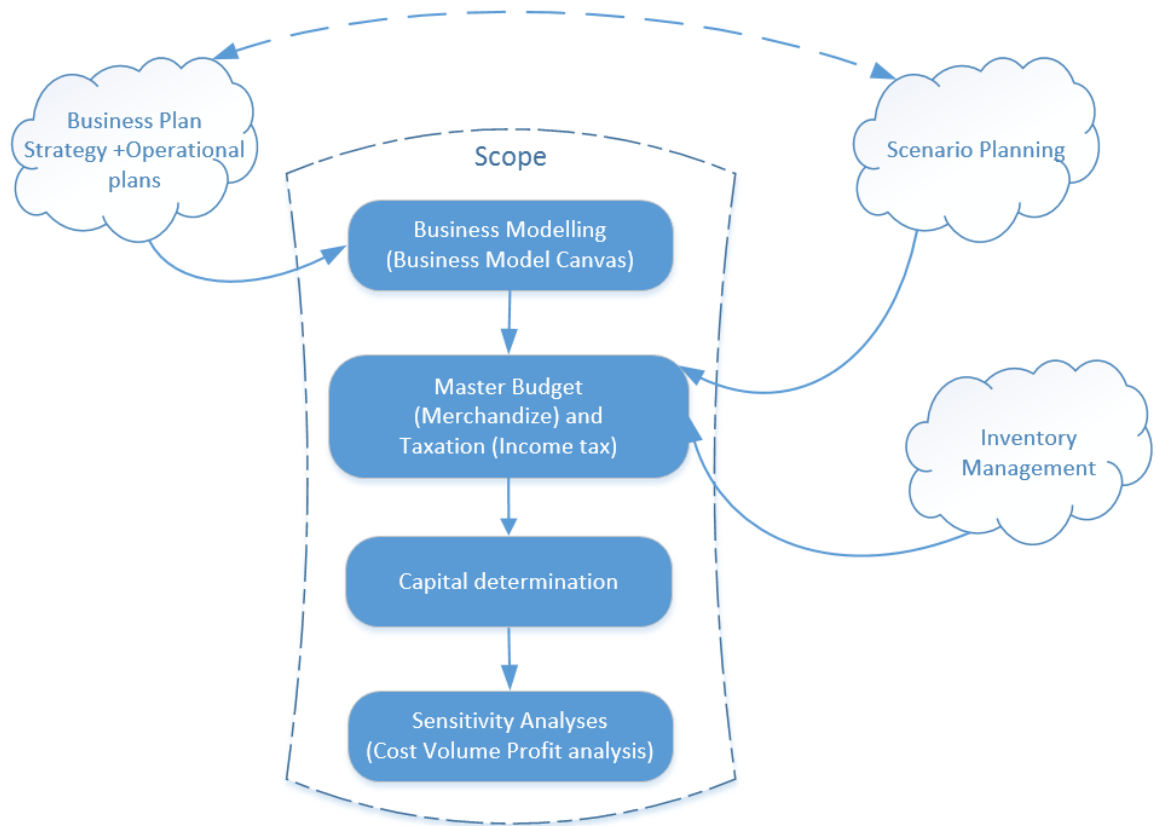


Figure 1. Project scope

#### 1.4 International aspect

The project focuses on assisting a start-up entity, whose line of business is in sales of merchandise primarily in Finland. The merchandise will be sourced initially from Scandinavian and Baltic countries. Hence, in that aspect, business-operations will involve interaction with key partners in Finland other neighbouring countries.

#### 1.5 Anticipated Benefits

There are various benefits in undertaking this project to both parties (the commissioning entity and the project manager). The commissioning entity will be able determine the viability of alternative modes of operation by evaluating profitability of each, and decide how to proceed with planning and/or execution. Additionally, the commissioning entity will have a two-year financial budget for the selected mode of operation, which will enable them to monitor and control actual business performance, and take corrective measures (if

needed) in order to achieve desired results. The budget will also help to put the commissioning entity's business plan and strategies into perspective by translating them into financial information that can be analysed.

The sensitivity analysis will provide the commissioning entity with information on the potential profitability at different price, cost and output levels. Hence, the entity will have clear understanding of financial implications of their strategic choices. Additionally, understanding the financial contribution (contribution margin) of each of the product groups toward profit generation is important in a business. Information on unit contribution margins obtained from sensitivity analysis would enable the commissioning entity to start thinking of strategies that would drive-up sales of relatively high-margin products.

One has to have adequate financing to execute a business idea and therefore, one needs to estimate amount of capital adequate to operate the business. On that note, the commissioning entity will be provided with a capital estimation (including contingent capital) adequate to run business operations currently under budget. Additionally, through an easy to use budgeting toolkit, the company can make changes to the budget to reflect changes in business environment, strategy, and/or resources availability. For instance, the business owner can incorporate additional capital information into the budget, make amendments to financial figures, and create new budgets for future periods. Ultimately, results from this thesis project will be used by the commissioning entity to drive the execution or review of strategy as seen fit.

The project manager will also benefit from the experience of undertaking a comprehensive budgeting process for a real business opportunity. Commissioning entity's business opportunity deals with multiple products under more than one business scenario. Such a scope will provide the project manager with an opportunity to deal with real-life budgeting and implementation challenges/ nuances that would enhance their financial management experience.

The project manager (consultant to the commissioning entity) would have to conduct secondary research to find out possible costs required to run the business and compare with the data from the commissioning entity. Any discrepancies will be presented to the entity for consideration/ evaluation for possible adoption into the budgeting process. Exposure to this process provides the project manager with invaluable experience that will be of benefit in future endeavours of building a career in management accounting and of being an entrepreneur.

## 1.6 Key concepts

Below are key concepts that are pivotal in the implementation of the project:

**Break-even point:** The sales level at which operating income is zero (Braun, Tietz & Harrison 2010, 368).

**Budget** is a quantitative expression of a proposed plan of action by management and is an aid to coordinating what needs to be done to execute that plan (Horngren, Datar & Rajan 2012, 184).

**Business Model** describes the rationale of how an organization creates, delivers, and captures value (Osterwalder & Pigneur 2010, 14).

**Contribution Margin** is the excess of sales over variable cost of a product or service, which is the amount of money available to cover fixed costs and generate profit (Shim, Siegel & Shim 2012, 58).

**Cost Volume Profit analysis** is the process of examining the relationship of total revenue, total costs and operating income resulting from changes sales unit, price, variable and fixed costs (Horngren & al. 2012, 85).

**Distance selling** is the term used to describes supplies of goods from one Member State to a person in another Member State where; the customer is not registered for VAT, and the supplier is responsible for delivery of the goods (HM Revenue & Customs).

**Margin of Safety** is the units sold or expected to be sold or revenue earned or expected to be earned above the break-even point in units or revenue respectively (Hansen, Mowen & Guan 2009, 607).

**Master Budget** is an expression of management's operating and financial plans for a specified period, including a set of budgeted financial statements (Horngren & al. 2012, 207).

**Relevant range** is a band of volume where total fixed costs and variable cost per unit remain constant (Braun & al. 2010, 307).

**Sensitivity Analysis** also known as “What-If Scenario” applies different alternatives or potential scenarios to the budget model to see their impact to the original data (HBSPress & SHRM 2005, 181).

### **1.7 About Commissioning entity**

Commissioning entity (Circlet and Lines) is a private trader in retail sector, established in 2014, with plan to sell handmade accessories, and apparel from selective artists/ designers in Finland and other Baltic and Scandinavian countries. The entity has already conducted a sales test run for its merchandize in the Finnish market. Their target market is women of from teenage to above 50 (17 – 60 years), with the appreciation of detail and beauty of handmade accessories (both wearables and interior decoration).

## **2 Relationship of theories and models to project implementation**

A business plan is a relevant tool that assists new ventures (start-ups) to articulate different aspects of a business idea(s) (Barringer 2009, 1). One of those aspects is the description of the process of value creation, deliverance, and capture through business models. Business models often set a good foundation for a business plan due to the amount of time, work, and thought invested to create it. (Osterwalder & Pigneur 2010, 268). A financial plan (budget) on the other hand, supports and rationalizes implementation of business ideas by showing whether or not the business can start and continue to operate successfully (Barringer 2009, 209). Hence, the financial budget will be developed using master budget theory once operating modes have been created. As per figure 2, business modelling (Business Model Canvas) is used to describe modes of operation that will be factored in the budgeting process. Guided by the top seven blocks of BMC (Figure 3), project manager can build a comprehensive picture of the modes of operation. Remaining two blocks of the canvas (Figure 3) provide cost structure and related revenue source(s) that are pivotal in supporting identified modes of operation.

Cost behaviour and income tax theories will also be used in developing the financial budgets based on the modes of operation identified through the BMC process. These budgets aim to show the viability of operating modes and as such, in phase one (figure 2), debt and equity will not be structured into the budget in its entirety. Capital determination, cost behaviour and sensitivity analysis theories (phase two) would be applied to the budget information of the chosen mode of operation in order to produce capital estimation, break even sales and margin of safety. Ultimately, the project manager will deliver a master budget, estimated capital value, sensitivity analysis for the chosen operating mode, and a budgeting tool supported by a user guide that would enable the owner in future planning; for example, incorporating debt and equity structure into the business.

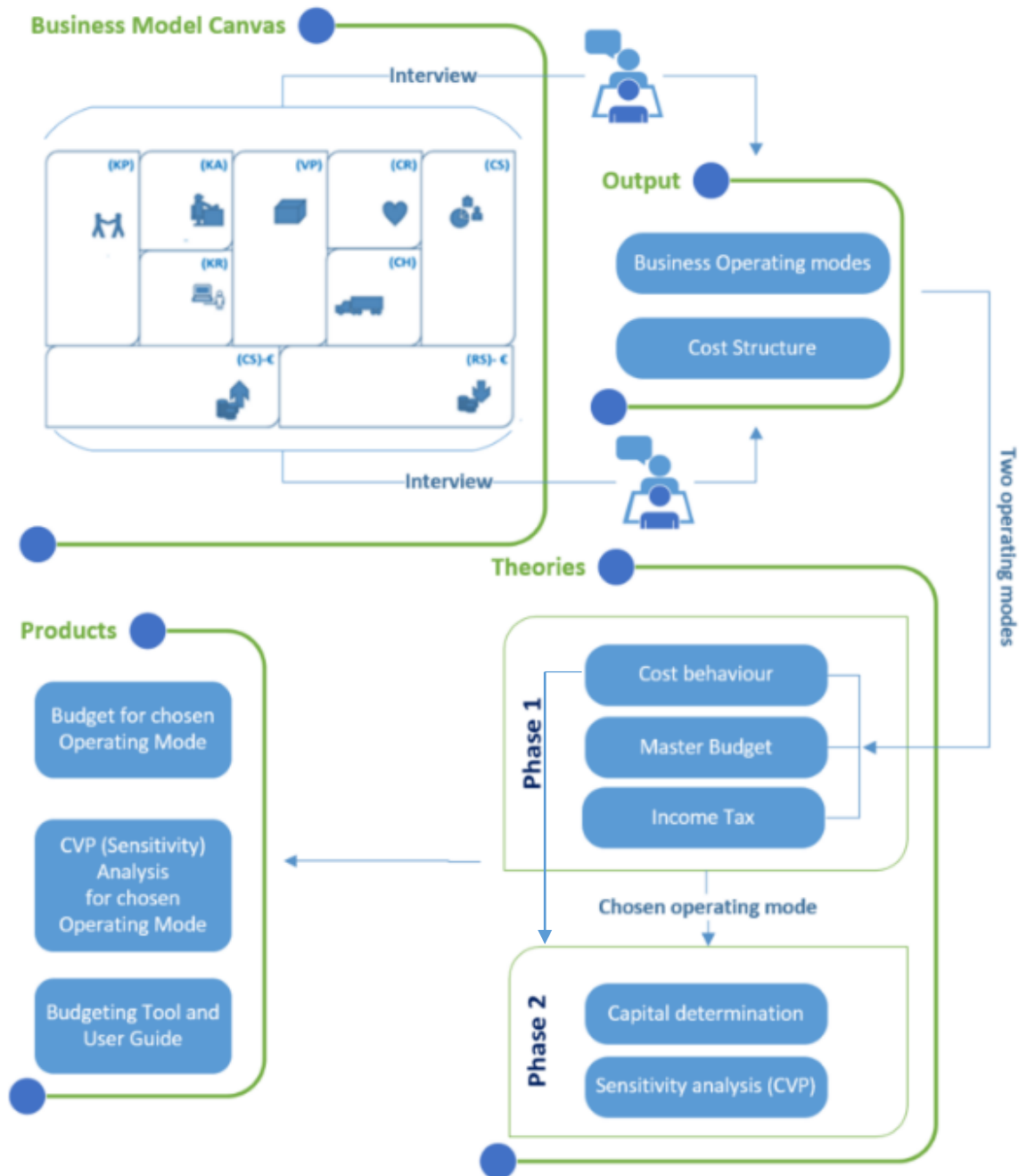


Figure 2. Relationship of models and theories to project implementation

### 2.1 Determination of operating modes through Business Model Canvas

Businesses must decide on their mode of operation (business model) in order to facilitate planning process. The planning process entails articulating goals or objectives, identifying alternatives for accomplishing those goals and ultimately deciding on one or more alternatives. The chosen alternatives would determine the business operation direction including the content of budget. (HBSPress & SHRM 2012, 158). The concept of business models is not only used by start-up companies; well-established companies review and create new business models that run parallel to existing ones, in order to create new markets and/or sustain growth in challenging market (Markides & Oyon 2010, 25).

## Business Model Canvas

Business Model Canvas (Figure 3) is one of many tools used in articulating business models. It is known for its application versatility, which allows users in different business environments to resolve a variety of needs. Some organisations have used the tool for different activities such as; for strategy discussions, for conversion of business plans to business processes, for conveying business idea, for clarifying details relating to business operations and conducting personal assessment of employability. This shows that the applicability of BMC is limitless, which gives users the flexibility of employing it in situations where they think it would add the most value. (Osterwalder & Pigneur 2010, 13 & 50-51).

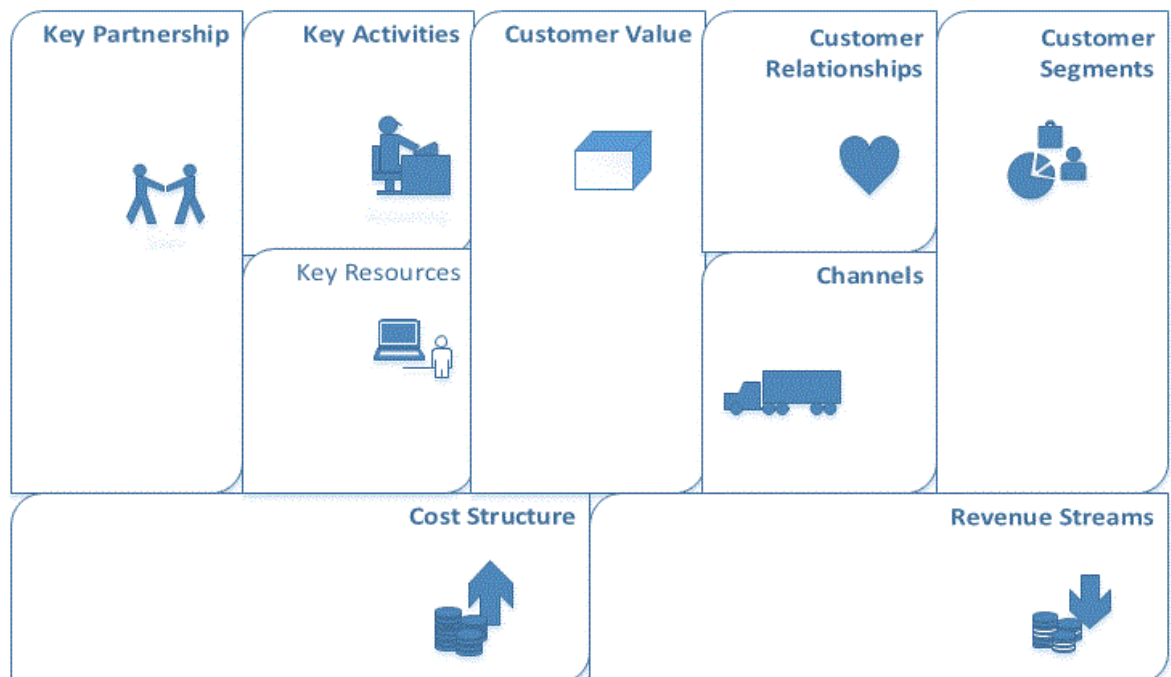


Figure 3. Business Model Canvas Osterwalder & Pigneur 2010, 19-42

According to Osterwalder & Pigneur (2010, 19-42), the model is made up of nine building blocks namely; customer segments, value proposition, channel, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. The blocks help to describe the key business elements relevant to value creation, delivery, and capture.

**Customer segments** are customer groups (individuals or companies) for which a business creates value. They can be categorized based on similarity of their needs, size, behaviour, service approach, revenue they generate and/or other characteristics. Regardless of the number of segments a company has, a careful selection of target-customer segments must be performed. A business model should be based on customer segments

with the most relevance so that company resources may be effectively used. (Osterwalder & Pigneur 2010, 20-21).

**Value proposition** is a combination of products and/or services tailored to deliver value to a specific customer segment. Different customer segments in different businesses or industries may perceive value differently (example, affordability maybe perceived to be a great value in online airline booking service but not in private banking, where service exclusivity and quality may be of more value). Values such as product/service affordability, design, high performance, accessibility, customization, enabling convenience and efficiency to customers and so on, may be combined differently to form different value propositions for customers. (Osterwalder & Pigneur 2010, 22-25).

**Channels** are considered as vehicles of delivery and communication of value proposition to customer segments. According to Osterwalder & Pigneur (2010, 27), channels are categorized into five stages:

- Awareness stage (channels that provide product and/or service information to customers)
- Evaluation stage (channels that enable customers to assess the value proposition)
- Purchase stage (channels that enable customers to purchase products and/or services)
- Delivery stage (channels that enable delivery of value proposition to customers)
- After sales (channels that enable the provision of after sales support)

**Customer relationships** focus on establishing and facilitating strategic relationships with customer segments within a business. Such strategic relationships enable businesses to increase customer loyalty/retention and satisfaction, increase market penetration and/or efficiency. Businesses should anticipate customer relationship expectations of their segments and aim to fulfil them in order to achieve desired value. These relationships may be through personal or dedicated assistance, co-creation of services with customer, online communities (social media), or implementation of self-service or automated services. In all these methods, businesses are able to be in touch with their customers by email correspondence, face-to-face meetings, involving them in value creation, learning and responding to their concerns opinions and potential needs. (Osterwalder & Pigneur 2010, 28-29).

**Revenue streams** are ways in which a business can generate cash from its customer segment(s). They also play a pivotal role in rationalizing the business' existence because they provide income and returns to shareholders/founders. Depending on the nature of a business, revenue streams may come from asset sale (product/service, which is common



to most businesses), leasing (aircraft), subscription (online games/movies), rental (apartments), advertising (newspapers, search engines) usage (hotels) and brokerage fees (real state and credit card companies) and so on. A company may have one or more sources of revenue for its customer segments. (Osterwalder & Pigneur 2010, 30-33).

**Key resources** enable businesses to create and deliver value to its customer segments while capturing value for its shareholders/founders. There are many types of resources, some of which are physical (buildings and machines), human, intellectual (knowledge, patents, copyrights, information), and financial (loans). Some of these resources are key to businesses in specific industries than others, for example, patents and machinery for technology and manufacturing industries respectively. This implies that a start-up may also have a unique structure of resources depending on their objectives. (Osterwalder & Pigneur 2010, 34-35).

**Key activities** are actions that a business must take to create a value proposition and support the entire business model. Like key resources, they differ depending on the industry in which a business operates. For example, businesses in retail industry may have key activities such as sales, promotion, after sales support and others, while businesses in service industry such as hotels, may need activities such as sales and reservations, transportation, and management among others. (Osterwalder & Pigneur 2010, 36-37).

**Key partnerships** are strategic relationships with suppliers and partners that make the business model function. These partnerships may be forged with different motives such as to protect and/or expand market, acquire and/or maintain stable supply of resources. Due to these motives, businesses enter into different kinds of partnerships such as supplier-buyer relationships, strategic alliances joint ventures and others. (Osterwalder & Pigneur 2010, 38-39).

**Cost structure** of a business model is made up of variable and fixed costs that need to be/ have been incurred in running a business. Costs related to running/maintaining each aspect of the business model (represented by the nine blocks of BMC) should be deduced in order to gain a complete picture of the cost of operation. Some businesses are more concerned with value production than cost reduction, for example, companies with research and development functions. However, it is still important for businesses to understand which key resources and/or activities attract most costs and where possible, look for ways to reduce them, especially in such times of economic crisis where there is often little/no opportunity for market growth. (Osterwalder & Pigneur 2010, 40).

## 2.2 Cost behaviours and their implication to business

Having an understanding of a business profitability at different sales levels requires a clear knowledge of a business' cost structure. This knowledge can be achieved by analysing the attributes/behaviours of each cost item that make up the cost structure (Walther & Skousen 2009, 37). Additionally, Braun & al. (2010, 300 & 312) state that knowledge of cost behaviours coupled with one's judgement would enable accurate classification of costs. They continue to identify three common cost behaviours namely, variable, fixed, and mixed costs.

**Variable costs** normally vary in direct proportion to changes in volume, which implies that there are no variable costs in the absence of volume of activity (Figure 4 A); and that variable costs increase at the same rate as the production/sales volume. Due to that, the variable cost per unit remains constant as the volume changes (Figure 4 B). (Braun & al. 2010, 300-301).

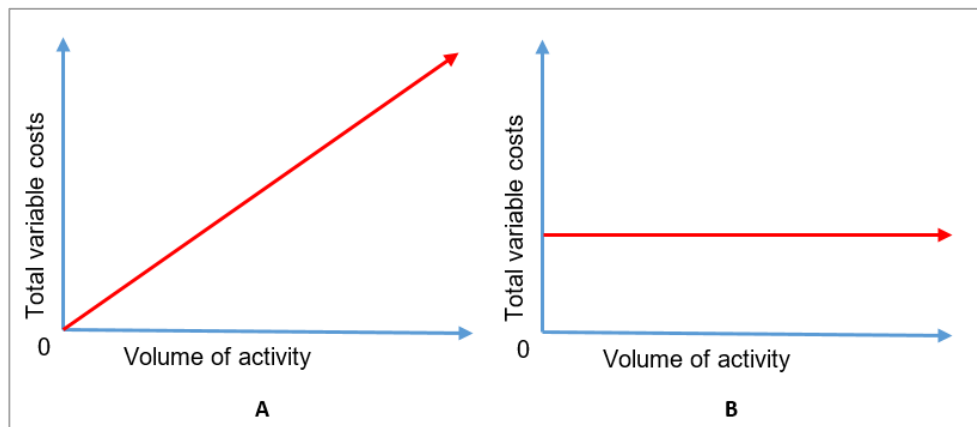


Figure 4. Variable cost behaviour

**Fixed costs** do not change regardless of the wide range of change in volume. These costs will be incurred even at zero volumes of sales or production (Figure 5 A). Consequently, the unit fixed cost decreases but never reaches zero, as volume increases, as seen in Figure 5 B. (Braun & al. 2010, 303-304).

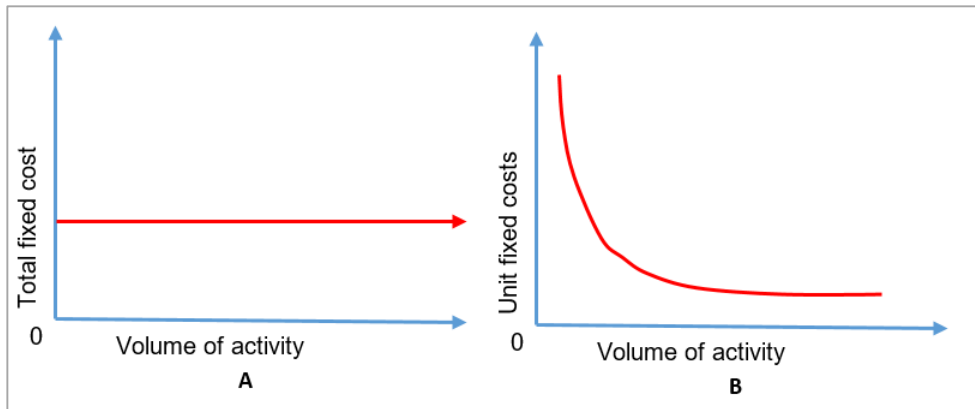


Figure 5. Fixed cost behaviour

However, the above cost behaviours can hold true if the level of activities is within a relevant range. Relevant range may be exceeded if an existing cost structure of a business no longer supports its growth due to an increase in level of activities; for example, an increase in sales volume that would justify increasing human resources (sales persons). In such a scenario, the business would need to incur additional costs both fixed and variable in order to support new activity levels. This would cause it to operate in a new relevant range, with different constant values for total fixed cost and variable cost per unit. One has to be aware of relevant range(s) in a business operation in order to forecast costs accurately. (Braun & al. 2010, 307-309).

**Mixed costs** normally contain both a variable and fixed component (Figure 6). As a result, total mixed costs do not vary in direct proportion to volume (they do not exhibit the same behaviour as variable costs do). Business may incur both a fixed cost portion regardless of volume of activity, and unit cost for each volume of activity (utility costs for example)

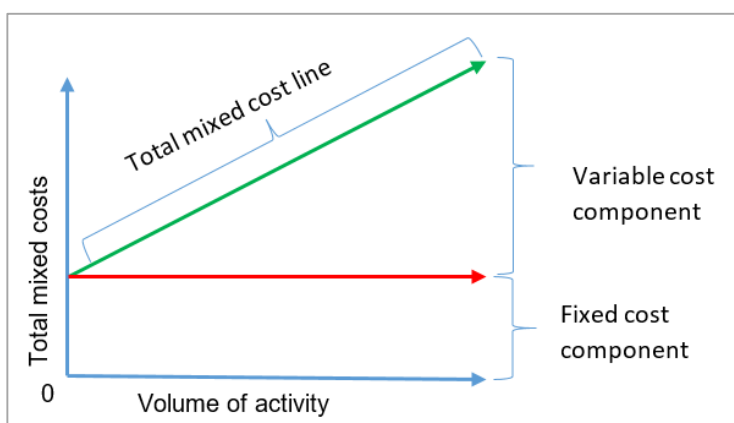


Figure 6. Mixed cost behaviour

## Cost implication to a business

Proportions of fixed and variable costs in a business' cost structure have an impact on profitability. It is often challenging for businesses with inherently fixed cost structures to generate profits during low sales seasons due to challenges in covering their fixed costs. In high seasons however, such businesses can generate high profits because costs do not rise as much with the increase in sales volume. As a result, the profitability of such businesses is often impacted by sales fluctuations. Airline companies are a good example of such businesses. Businesses strive to stabilize profit fluctuations through cost restructuring (changing fixed costs to variable costs), in order to have more stable profits relative to their sales. Some industries try to achieve profit stability by outsourcing aspects of their operations where they can be charged according to usage, in an attempt to create a relatively stable flow of income to sales. However, since businesses normally differ in operations and cost structures, emphasis is placed in understanding their inherent cost structures before attempting to optimize costs. (Walther & Skousen 2009, 37).

## 2.3 Budgeting through Master Budget

Budgeting is a planning process an organisation undertakes to increase the chances of timely and efficiently attaining its strategic objectives. Once strategic objectives are translated into plans, an organisation can then deduce estimates on resources, costs and anticipated returns in form of a budget. (HBSPress & SHRM 2005, 157). One may question if budgeting and forecasting are the same thing, but Wyatt (2012, 23) clarifies this by stating that budgeting and forecasting are different processes and that forecasting facilitates budgeting process. For example, forecast on sales are needed to prepare a budget.

### Functions of a budget

Budget plays several roles within an organisation. HBSPress & SHRM (2005, 157) and Braun & al. (2010, 478) describe similar roles of budget, but use different categorization. These roles are (Figure 7):

- To encourage planning process
- To facilitate communication and coordination
- To allow benchmarking

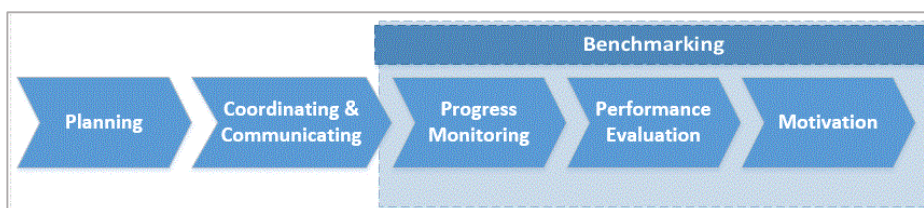


Figure 7. Budget functions (HBSPress & SHRM 2005, 157-160; Braun & al. 2010, 478)

### *Encourages planning*

Budgeting process encourages an organisation not to focus only on daily running of business operations but also on planning for future business activities (Braun & al. 2010, 478). Prior to budget preparation, organisations often engage in planning, whereby they set targets, find alternative ways of achieving them, and conduct cost and benefit analyses on the alternatives before selecting the best ones that will provide direction to their business operations and budgeting processes. Planning process normally continues through the budgeting phase where organisations decide how resources and costs will be used and incurred respectively, in order to achieve desired strategic objectives. (HBSPress & SHRM 2005, 158). Braun & al. (2010, 478) acknowledge that planning increases the probability of achieving goals that have been set.

### *Communication and Coordination*

In a budgeting process, each unit/department may have respective targets and resource requirements to facilitate achievement of their targets. Information on the targets and requirements from the units/departments need to be merged and harmonized in order to align to the overall objectives of an organisation. (HBSPress & SHRM 2005, 159). Wyatt (2012, 15) argues, "Budget itself is a form of communication". Through a budget, employees are informed of plans and objectives of the organisation; and management as well are able to understand the potential financial impact that each unit/department creates in attaining the overall set objectives (Shim & al. 2012, 15).

### *Benchmarking – Progress monitoring and performance evaluation and motivation*

Organisations can use budgets as benchmarks for progress monitoring and performance evaluations in order to increase probability of attaining their objectives. Therefore, it is important such organisations to prepare realistic budget figures so that meaningful performance variance analyses (variation of actual numbers against budget) can be conducted. Such performance variance analyses facilitate realistic performance evaluations and performance monitoring through early detection of problems that impede achievement of set goals (Shim & al. 2012, 17, 20).

A budget can motivate managers/individual units to perform well provided the targets set are challenging, realistic and attainable. Otherwise, the managers will be frustrated and demotivated (Braun & al. 2012, 478). It is believed that employees at lower levels in organisations would most likely take ownership of their budget performances and be inspired to achieve them if management involve the employees in the budgeting process. (Shim & al. 2012, 23). Wyatt (2012, 10) cautions that a budget should not be used as a

sole tool for motivation and performance measurement. He believes that other Key Performance Indicators (KPIs) should also be factored to achieve a balance. Failure to that, employees particularly managers, may focus mainly on negotiating and attaining their individual budgets to the detriment of the organisation as a whole.

### **Approaches to budgeting**

Wyatt (2012, 84) explains that there are three approaches to budgeting process namely, incremental, zero based and activity based budgeting. There are pros and cons to each of these approaches. An *Incremental budgeting* process allows budget prepares to amend previous year's budget to accommodate expectation of current year. It is the most preferred method due to its simplicity in preparation; however, it assumes that assumptions used to prepare the previous budget still apply to current year, which may not be as accurate in every situation. Additionally, since budgets are not based on a yearly plan, managers tend stringently use their budgets in early quarters of the year in order to create reserve amount as contingency. The managers would then race to fully utilize their budgets before end of the year, for fear of facing cuts on unutilized portions of their budgets, which otherwise, should form a basis for following year's budget. This implies that budgets are not efficiently used, and distortions on spending patterns emerge as a result. (Wyatt 2012, 85).

*Zero based budgeting* approach is the opposite of incremental approach. In zero-based budgeting, each line item in a budget has to be re-justified in every period of budget. This method tends to demand significant amount of time and resources for the budget preparation process, sometimes to the detriment of actual productivity. Hence, users of this approach sometimes may be tempted to base some of their costs from previous years in order to reduce complexity and shorten the process. Due to this, it is believed that by merging two of the above approaches, a more beneficial compromise may be achieved, where budgets can be prepared on incremental basis and reviewed periodically from scratch. This would ensure that each line item in the budget is reflective of current business operations. (Wyatt 2012, 86).

*Activity based budgeting* is another approach that originates from the activity based costing methodology advocated by Professor Kaplan of Harvard Business School in 1980's. This implies that an activity based cost budget is formulated based on the organisation's current activity based cost data. This approach is not very common since very few organisations apply activity based costing; hence, only few organisations may have the data that can produce budgets in that format. Even though this approach is unpopular, budget prepares should use the activity based mentality in their budget preparation. Meaning, they

should plan activities to be conducted in the budget year, make trade-offs between activities or investigate cost effective ways undertaking planned activities in order to operate within the budget. (Wyatt 2012, 86).

Whichever budgeting approach is used, the budgeting process has to commence in a timely manner to allow continuous business operation. Braun & al. (2012, 477) explain that some organisations tend to start the next year's budgeting process during the last two quarters of the current year, while other organisations prefer to have a rolling budget. A rolling budget is updated on a monthly basis to span twelve months.

### Master Budget

A master budget is an all-inclusive action plan for a business. It provides a comprehensive picture of financial and operational budgets of a business through consolidation of budgets of various units/departments throughout its operations. (HBSPress &SHRM 2005, 164). The master budget is made up of logically consolidated budget components that facilitate preparation of budgeted financial statements. Its' complexity varies depending on whether it is prepared for a business operating in manufacturing, merchandising or service sector. The master budget formats for merchandise and service companies are relatively less complex compared to that of a manufacturing company (Braun & al. 2010, 479).

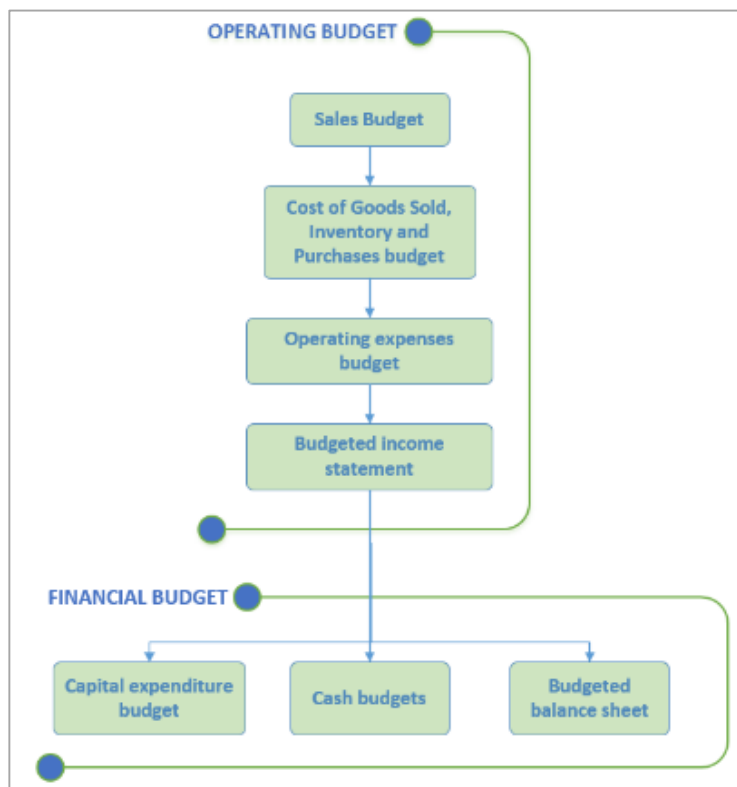


Figure 8. Master budget for merchandising company

As seen in Figure 8 above, a merchandise master budget consists of two main budgets referred as operating and financial budgets. Each of these budgets contains individual budget components as detailed below.

An **Operating budget** is required to run daily operations of an organisation (Braun & al. 2010, 479). Merchandizing master budget follows the same format as that of a manufacturing company, with the exception of a cost of goods sold, inventory and purchases budget, which replaces the production, direct materials, direct labour and manufacturing overhead budgets (Braun & al. 2010, 504). Consequently, a merchandizing operating budget consists of four budget components (Figure 8) namely, sales budget, cost of goods sold, inventory and purchases budget, operating budget, and budgeted income statement.

*Sales budget* is a starting point of a master budget, which establishes a connection between strategic plans and action plan. The sales budget influences almost all aspects of a master budget preparation. (Braun & al. 2010, 480; Shim & al. 2012, 99). As a result, prior consideration should be given to factors such as company objectives, market availability, seasonality, and start-up capital availability before budget preparation can take place (Madegowda 2007, 423). Shim & al. (2012, 99) state that total sales budget should be expressed both in quantity and value. The anticipated total sales can be referred to as projected sales, break-even point sales, or target income sales, depending on the company's intent for that particular budget (to develop budget for projected income, break-even point or target income).

*Cost of goods sold (COGS), inventory, and purchases budget* derives the value of inventory and purchases required to sustain the budgeted sales as shown in Figure 9. However, minimum ending inventory (desired ending inventory) should be estimated in order to facilitate continued sales in case of delays in the delivery of new inventory. Therefore, an estimated total inventory required to cover sales of a specific period can be calculated by adding the actual cost of goods sold (COGS) to the estimated minimum ending inventory for that period (desired ending inventory). The opening inventory (beginning inventory) should be subtracted from the total value of inventory required in order to get the actual value of inventory to be purchased. (Braun & al 2010, 504). In a budgeting process, the desired ending inventory of one period is the beginning inventory of the next period (Braun & al 2010, 482). COGS can be expressed as a percentage of sales; therefore, it simplifies the adjustment of COGS value to changes in sales value, which consequently simplifies the budgeting process; meaning, any sales revenue changes in the sales budget would require corresponding adjustment(s) to the COGS value(s).



$$\text{Cost of Goods Sold} + \text{Desired Ending Inventory} = \text{Total Inventory Required}$$
$$\text{Total Inventory Required} - \text{Beginning Inventory} = \text{Purchases of Inventory}$$
$$\text{Cost of Goods Sold as a percentage of sales} = \left( \frac{\text{Total Cost of Goods Sold} \times 100\%}{\text{Total Sales Revenue}} \right) \times 100\%$$

Figure 9. Formula for COGS, Inventory and Purchases Budget (Braun & al. 2010, 504; Shim & al. 2012 102)

*Operating expenses budget* in the merchandizing sector consists of all costs related to product selling and administrative activities of the business (Shim & al. 2012, 107).

*Budgeted income statement* is a summary of the preceding budget components (sales budget, COGS, inventory, and purchases budget, and operating expenses budget). Gross profit is attained calculating the difference between sales budget figure(s) and COGS figure (s), originating from the sales and COGS, inventory, and purchases budgets respectively. Operating expenses originating from the operating expenses budget should be deducted from gross profit to produce a budgeted operating income. The budgeted income statement's format is similar to that of a standard income statement with the exception of its focus on operating income instead of net income. However, if preferred, net income can be shown by including provisional tax expenses and interest expenses or income. (Shim & al. 2012, 111; Braun & al. 2010, 486).

**Financial Budget** allows an organisation to determine its future assets, liabilities, and equity through the preparation of three budget components namely, capital expenditure, cash budget and budgeted balance sheet (Braun & al. 2010, 480).

A *Capital expenditure budget* details planned investments in property plant and equipment (Braun & al. 2010, 480). A *Cash Budget* on the other hand is responsible for detailing the amount and timing of cash inflows and outflows of an organisation in order to facilitate better planning and control of business activities (Scarborough 2011, 390). Through a cash budget, an organisation can determine whether there is a need to invest excess cash or borrow funds to meet operational obligations in case of a cash deficit (Braun & al. 2010, 480). Taylor (2002, 93) explains that if an organisation is/ plans to be registered for VAT, then it will have factor VAT in its cash budget or cash flow in order to show accurate values of cash inflows and outflows.

According to Shim & al. (2012, 6), the combined cash budget normally has four sections:

- Collection section: which shows beginning cash balance, cash collections from sales revenue, and other sources.
- Payment section: shows cash payments which are subtracted from cash collection amounts to determine ending cash balance prior to financing
- Cash deficit or surplus section: displays the ending balance as a negative or positive figure respectively.
- Financing section: in which borrowing and repayment amounts are shown according to the financing needs and decisions done by the organisation.

Adherence to deadlines in payments is essential especially for transactions that bear penalties for late settlement. Finland mandates timely payment of tax obligations whereby failure to meet such deadlines attracts penalties, for example, late filing of income tax (VERO 2014a). Some of the due dates crucial in budget preparation:

- VAT payments: can be paid on the 12<sup>th</sup> of the second month following the taxable month, quarterly, yearly depending on turnover or agreed period of reporting (VERO 2010, VERO 2015c).
- VAT refunds: these are refunded immediately after completion of processing of filed tax. Default due date is the 12<sup>th</sup> of the following month (VERO 2014b).
- Employee pension (TyEL) and contributions: due date is 20<sup>th</sup> of the next month following payroll month (Elo 2015, 4; VERO 2015a)
- Self-employment pension (YEL): due date 20<sup>th</sup> day of the month; however, flexible payment plan may be organised if required (Etera 2015).
- Income tax: payments can be done in two, three, six, or twelve instalments if the annual tax amounts are in the range of € 170 - € 500, € 501 - € 1 700, € 1701 – € 10 000 or € 10 000 onwards (VERO 2014c)

*Budgeted Balance Sheet* enables an organisation to have an overview of the future financial position of a company whereby estimated resources and liabilities for the future period(s) can be determined. Using such estimates, management can calculate various potential financial potential ratios, which may give negative financial outlook that the organisation may want to avoid. Additionally, a balanced balance sheet serves as an accuracy measurement for other budget components (Shim & al. 2012, 111).

## **2.4 Income tax for a private entrepreneur**

A private entrepreneur (self-employed person) bears financial risks and responsibilities for their business commitments. Therefore, unlike a limited liability entity, the entrepreneur (owner) and their business are considered as a single entity. Consequently, self-employed entrepreneurs have different tax obligations compared to legal entities. (Enterprise Finland).

The private entrepreneur is obliged to pay taxes on income from their business and other sources such as investments, asset sales, or employment (salary). The taxes can be in form of capital and earned income taxes or only earned income taxes, depending on preference. The private entrepreneur must follow the steps below in order to calculate their tax obligations (Figure 10):

- Identify the taxable income from business venture
- Calculate the net asset, which is the difference between total assets and total liabilities of the business. Details of previous year's financial position would be used to calculate the net asset for an existing business venture, while for a start-up, financial details of the first year (as of the last day of the year of foundation) would be used instead
- Add 30 percent of the business' payroll value to the net asset in order to calculate the basis value for a capital income portion. This aspect would be ignored if the entrepreneur does not have employees
- Decide whether to calculate a capital income portion as 20 percent, 10 percent, or 0 percent of the basis for capital income portion. 0 percent means that the entire taxable income would be taxed as earned income along with the entrepreneur's income from other sources
- For example, if a rate of 20 percent were chosen for calculation of the capital income portion, the result from that calculation would be subtracted from the taxable income to get an earned-income portion. The same would be repeated if the entrepreneur prefers to use a 10 percent rate.
- The capital income portion would be taxed a flat rate of 30 percent if it does not exceed € 30 000, and 33 percent for the portion exceeding € 30 000
- The earned income portion from the business and other sources would be taxed at a progressive tax rate determined by the tax authorities. (VERO 2015b; Finnish Enterprise Agencies 2015, 38-39).

▪ Taxable income 18 000€			
▪ Assets 35 000€, Liabilities 20 000€			
▪ Salaries paid during the financial year (12 months) 30 000€			
▪ Basis for Capital-income portion:			
+ Assets	35000		
- Liabilities	<u>20000</u>		
= Net assets	15000		
+ 30% of total salaries	<u>9000</u>		
= Basis for capital-income portion	<u>24000</u>		
		1. Capital-income portion 20% of 24 000	4 800
		2. Earned-income portion rest	13 200
		OR	
		1. If the entrepreneur requires the capital-income portion to be 10% of 24 000	2 400
		2. Earned-income portion rest	15 600
		OR	
		Total taxable income taxed as	
		1. Earned-income	18 000

Figure 10. Sample calculation of income tax for private entrepreneur (Arkima 2015, 12-13)

On a yearly basis, the private entrepreneur has the right to review and change the percentage rate of capital income portion (between 20, 10 and 0 percent) as seen fit. The change would be implemented through a notification form to the tax authorities before the end of the year. A progressive tax rate can be estimated using an online tax calculator (VERO 2015b; VERO).

## **2.5 Capital determination**

A new business often faces a crucial challenge of determining sufficient amount of capital to run their business operations. Although it is impossible to ascertain the exact cash requirement, realistic estimates based on the financial budgets can be created. Such estimates would be achieved by preparing the optimistic, pessimistic, and likely financial budget scenarios for the business. The scenarios would be used to calculate an estimated capital and a contingency capital, should the business fail to achieve its planned (likely) scenario. (Stancill 1986, 122).

Cash budget, a component in a financial budgeting, is pivotal in determining the capital required for a business. Using the cash budget, the highest negative ending cash balance for the likely scenario would be qualified as the capital amount required for the business. Contingent capital on the other hand would be determined by calculating the difference between the highest negative ending cash balance of likely and pessimistic scenarios, and likely and optimistic scenarios. Whichever of the above that produces the highest difference (difference between either likely and pessimistic scenarios, or likely and optimistic scenarios), its value would be qualified as contingent capital. Identifying the extent of capital required to run the business, enables it to effectively plan for availability of cash resource when needed. (Stancill 1986, 136 & 139).

For example, if the likely scenario has the highest negative-ending cash balance of € 846,063 while the optimistic and pessimistic scenarios have the highest negative-ending cash balances of € 1,052,289 and € 859,756 respectively, capital requirements in this case would be approximately € 850,000 (846,063) in estimated capital and € 200,000 (206,226) in contingency capital. The difference between the likely and optimistic scenarios (€ 206,226) is much higher than the difference between the likely and pessimistic scenarios (€ 13,693). When determining capital needs, estimating down to the last cent/euro would be unrealistic and misleading. Therefore, it is important to round off the figures to avoid specious accuracy. (Stancill 1986, 138).

## **2.6 Sensitivity analysis**

As a business manager, one needs to be prepared for changes in business environment, which would trigger change in pricing and costs among other things. In order to prepare, the manager needs to anticipate the impact of such changes on sales volume, pricing, and costs; and assess the resultant profitability using a Cost Volume Profit (CVP) analysis (Braun & al. 2010, 376).

CVP analysis is not without limitations, and as such, the resultant calculations have to be considered as estimates under the following assumptions:

- Volume is the only factor that influences costs. Other factors such as inflation, efficiency, capacity are not considered.
- Costs can always be clearly separated into variable and fixed costs
- Costs are linear through relevant range of volume
- Revenues will remain linear through relevant range of volume (sales price is constant)
- Proportions of products that make total sales (sales mix) should always be constant, since any change would affect profitability, particularly in situations where the products involved have different contribution margins
- Inventory levels remain the same  
(Braun & al. 2010, 364).

CVP analysis allows a business manager to make changes to pricing strategies, products offering, and cost structure in order to optimise profits, within an anticipated business condition(s). CVP as a tool relies on the relationships between pricing, sales volume, variable cost, fixed costs and product mix in determining a target profit or break-even point.

Through these relationships, any of the five components (price, volume, fixed & variable cost or profit) can be calculated if data for the remaining four components is available (Braun & al. 2010, 376; Walther & Skousen 2009, 50).

### **Contribution margin**

Contribution margin is normally determined by subtracting variable costs from sales revenue. The margin contributes in covering fixed costs and generating operating income for the business. Therefore, through the contribution margin, profits made by sales, prior to the consideration of fixed costs can be identified. This margin may be presented as a per-unit measure, a ratio, or an aggregate data. However, managers often state the contribution margin as a ratio, percentage, or per unit measure. A unit contribution margin is the difference between the product's selling price and its unit variable cost; while a contribution margin ratio is the sales revenue percentage that is available for covering fixed costs and generating profit, obtained as a ratio of contribution margin to sales revenue (Braun & al. 2010, 366-367; Walther & Skousen 2009, 50).

### **Break-even point and margin of safety**

*Break-even* is the point in which sales levels generate neither profit nor loss for the business (zero operating income). This information enables business managers to make decisions that would influence the increase in sales revenue order to generate profits that would achieve and surpass the break-even point. The break-even point can be calculated in terms of units or sales revenue, depending on the preference or nature of the business.

Retail businesses in particular, often deal with many types of products; therefore, calculating the break-even point in terms of sales revenue rather than units would be beneficial. (Braun & al. 2010, 368 & 382-383).

Braun & al. (2010, 368-370) state that the break-even point can be calculated using a contribution-margin income statement approach, where unit contribution margin and contribution margin ratios are used to calculate the break-even point in units and in sales revenue respectively, as seen in formulas below

Contribution-margin income statement:

$$\text{Sales Revenue} - \text{Variable Cost} - \text{Fixed Cost} = \text{Operating Income}$$

$$\left( \begin{array}{c} \text{Sales price} \\ \text{per unit} \end{array} \times \text{Unit sold} \right) - \left( \begin{array}{c} \text{Variable cost} \\ \text{per unit} \end{array} \times \text{Unit sold} \right) - \text{Fixed cost} = \text{Operating inc.}$$

$$\text{Unit sold} \left( \begin{array}{c} \text{Sales price} \\ \text{per unit} \end{array} - \begin{array}{c} \text{Variable cost} \\ \text{per unit} \end{array} \right) - \text{Fixed cost} = \text{Operating inc.}$$

$$\text{Unit sold} \times \text{contribution margin per unit} - \text{Fixed cost} = \text{Operating inc.}$$

Use of unit contribution margin in determining the break-even point in units:

$$\text{Unit sold} \times \text{Contribution margin per unit} = \text{Fixed cost}$$

$$\text{Unit sold} = \frac{\text{Fixed cost}}{\text{Contribution margin per unit}}$$

Use of contribution margin ratio in determining the break-even point in sales:

$$(\text{Sales Revenue} - \text{Variable Cost}) - \text{Fixed Cost} = \text{Operating Income}$$

$$\text{Contribution margin} - \text{Fixed Cost} = 0$$

$$\text{but, Contribution margin ratio} = \frac{\text{Contribution margin}}{\text{Sales revenue}}$$

$$\text{Contribution margin ratio} \times \text{Sales revenue} = \text{Fixed cost}$$

$$\text{Sales revenue} = \frac{\text{Fixed cost}}{\text{Contribution margin ratio}}$$

Braun & al. (2010, 381-383) continue to state that, for businesses that sell more than one product, a weighted average contribution margin per unit or weighted average contribution margin ratio should be used in place of contribution margin per unit and contribution ratio

respectively. The weighted average contribution margin per unit is a ratio of the total contribution margin to the total number of sales units, while the weighted-average contribution margin ratio (WACMR) is derived by dividing the total contribution margin by the total sales revenue. Therefore, the break-even formula in sales revenue and sales units would be expressed as seen below:

$$\text{Breakeven sales revenue} = \frac{\text{Fixed cost}}{\text{Weighted average contribution margin ratio(WACMR)}}$$

$$\text{Breakeven sales units} = \frac{\text{Fixed cost}}{\text{Weighted average contribution margin per unit(WACM)}}$$

*Margin of safety* is the extent to which the sales exceed the break-even point. Mathematically, it is derived by subtracting the break-even point (in unit or sales) from the excess sales or target sales (in unit or sales) respectively. It is important to determine this buffer (margin or safety), in order to understand the extent to which the sales can decline without incurring a loss. A business with a high margin of safety (high buffer against loss) is considered as a less risky venture because a slight negative sales variance may not severely affect the business's bottom-line. Hence, the margin of safety can be a risk indicator for existing and new businesses (Braun & al. 2010, 384-385; Walther & Skousen 2009, 54)

### 3 Design of project implementation

The project implementation design involves three main phases as indicated in figure 11; the first phase relates to setting up budget framework. This includes selection of theory to support implementation, and using one of the theories to conduct a comprehensive elicitation of information related to operating modes and the overall budget. The information collected will be used in implementation of PT 3, by building a picture of the modes of operation and organising related financial data for budgeting process. Second phase focuses on development where outputs from phase one will be used to develop related budgets and determine capital requirements (PT 4), and conduct sensitivity analysis (PT 5). Microsoft Excel application and outputs from second phase will be used to develop the budgeting toolkit (PT 6).

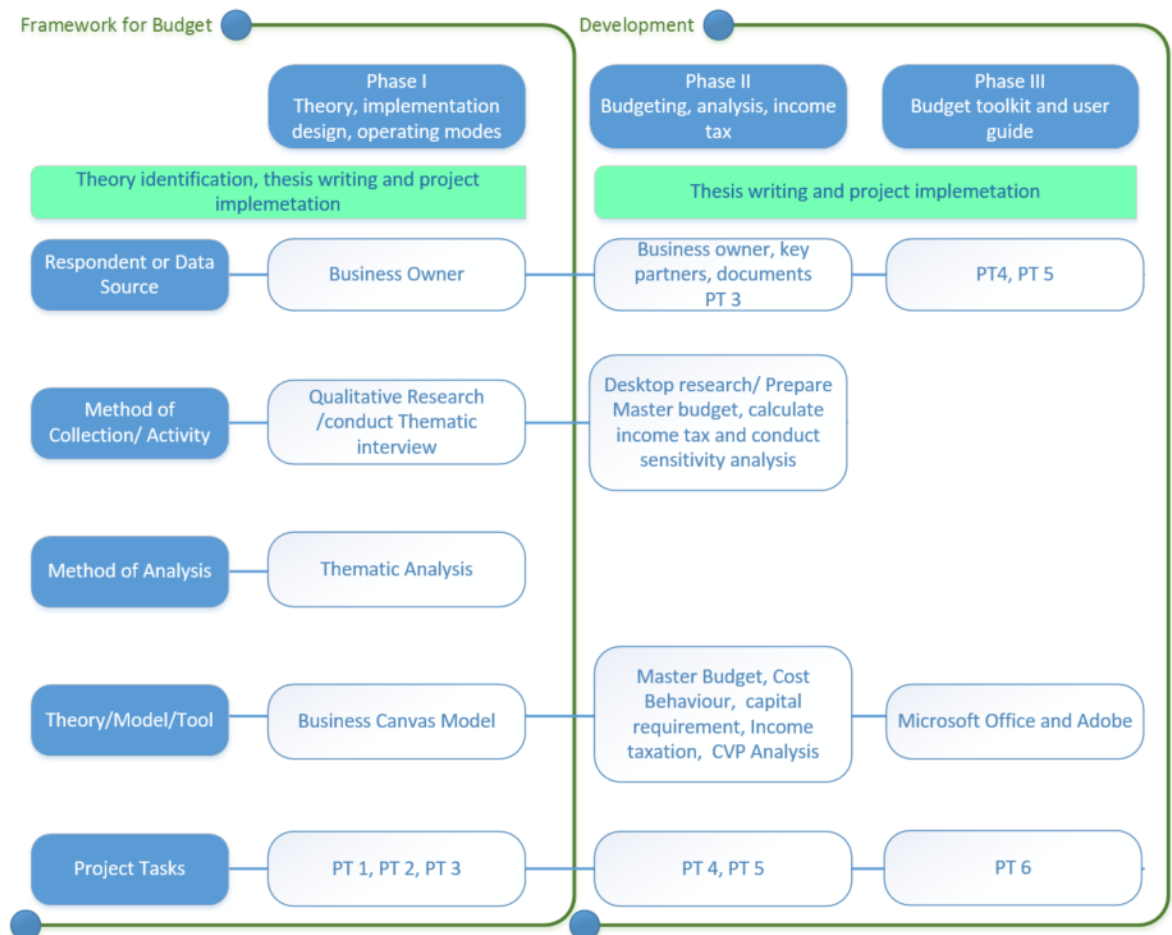


Figure 11. Project implementation design



### **3.1 Rationale for the approach selected**

Initial data collection for this project will be conducted through qualitative method due to the nature of data required (a combination of text and numerical data for use in development of modes of operations, budgets, and sensitivity analysis). Quantitative method is not appropriate for the project since the data gathered would not be statistically analysed.

A form of semi-structured, face-to-face or telephone interview technique would be used. A telephone interview may be used as an alternative method, should there be challenges in physical availability of interviewee. The interview is categorized as semi-structured since it is based on pre-defined questions formulated using the BMC as a guiding tool (appendix 2). The BMC categories provide themes for the interview process (in form of nine building blocks) that will allow the project manager (interviewer) to gain in-depth understanding of alternative modes of operation under consideration. Furthermore, the themes from the BMC cover all aspects of the business that help in providing a comprehensive picture of anticipated operations. There is a chance that in the planning process, the business owner may overlook critical aspect(s) of business operation that could affect financial budget formulation. In such situations, BMC-themed questionnaire ensures that such aspects are covered and brought to light for the business owner to take into consideration.

Osterwalder & Pigneur (2010, 40) state that costs related to running/maintaining a business model (represented by the nine blocks of BMC) should be deduced in order to gain a complete picture of the cost of operation. Therefore, the big picture of the business' operations (operating modes) would help identify all possible costs, particularly the hidden costs (those not featured in the business's cost data). Such costs if identified will have to be evaluated and/or implemented. In reference to Bell (2010, 161), versatility of interview technique provides interviewer with opportunity to probe and expound on ideas introduced by interviewee by asking follow up questions in order to investigate motives and emotions where applicable. Therefore, a BMC-themed interview would also trigger critical thinking and evaluation of alternatives by the commissioning entity, which is beneficial to a commissioning entity at the business planning stage.

### **3.2 Information and informant(s)**

Financial management data such as sales projections, costs, and formulated alternatives of operation are required to facilitate the implementation of the project. The business owner would be the right person to provide such data/ information since they are involved in formulating business strategy; which is the source of all data/ information needed for

the project. Business owner can provide a holistic view of the business, which is instrumental to the creation of a comprehensive budget and analysis. Due to the business's size, information that would be obtained from the business owner, and potentially from key partners (quotations for review by the business owner), would be enough to provide the required data for the project.

The project is an integral part of the commissioning entity's business plan. It will enable the entity to make a financial evaluation of the business plan's viability, and have the ability to make changes to the budget in the future through a tool. The entity is motivated enough to collaborate in the completion and delivery of the project. Hence, no additional motivation is required other than showing professionalism in project implementation process (adherence to timeline and, frequent feedback/up-date on the project in situations where there would be a deviation from the timeline). Consequently, the commissioning entity will be assured of the project manager's control of the process regardless of the inevitable changes in circumstances that may affect the set schedule.

### **3.3 Interview themes**

Themes covered in the questionnaire are guided by the nine building blocks of the BMC (appendix 2). These themes are:

- Key partners
- Key activities
- Key resources
- Channels (preferred method value proposition delivery)
- Customer segment(s) (type of clientele targeted)
- Customer relationship (preferred method of relationship management and communication with customer segment(s))
- Cost structure (intended to support the operations identified through the first six building blocks mentioned above)
- Revenue streams (expected from operations identified through the first six building blocks mentioned above)

## 4 Modes of Operation and cost structure

Through an interview and discussions carried out between business owner and project manager, two modes of operations, differentiated by value-proposition delivery channels were identified. One channel was a *traditional retail (brick-and-mortar)* shop, while the other was an *online retail shop*. Appendix 3 summarizes the structure of the two modes.

The business would cater to customers interested in buying accessories and apparel for women. In early stages, the business shall rely on email, social media channels, fashion blogging activities, word-of-mouth, and printed marketing stationery to create product awareness, strengthen relationships with customers, and conduct after sales services. Source of revenue shall be from the sale of products at a minimum mark-up of 120%. Identified key business activities are, merchandize sales, customer service, promotion, advertising, and administration. A mode of operation that the business will choose shall influence the method by which the key activities will be conducted. For instance, sales and customer service methods employed at a traditional retail store would vary from sales and customer support methods employed at an online retail shop. The methods under traditional retail shop would require personal interaction with customers and perhaps demand more human resource than the alternative (online retail shop).

Key business relationships provide key resources to the business. For a traditional retail shop, the business owner would need to deal with real estate agencies/renters in finding an affordable and strategic business location. The online retail shop alternative does not require official premises since the plan is to run it from the business owner's residence; however, it would require e-commerce platform services to create and maintain it. Such a mode of operation tends to demand more resources for building product awareness and advertising due to its lack of a brick-and-mortar store. Therefore, the difference in the choice of channel (mode of operation) influences the kind of partnerships, resources and costs that the business owner would establish, need, and incur respectively.

The following assumptions will guide the budget development:

- Some facilities that the business owner has or uses shall also be utilised for business activities. A portion of cost relating to those facilities shall be factored into the budgeting process
- Traditional retail shop sales shall contain a mix of cash and credit transactions at an estimated ratio of 30 percent to 70 percent, respectively.
- One purchase (transaction) constitutes one product for online retail shop. Consumers that may purchase more than one product per transaction would be considered an exception (to avoid specious accuracy in budgeting process).The assumption will facilitate calculation of transactional costs

- Cost of packaging material has been included in sundries(the value is relatively small)
- The business shall be VAT-registered, so as to allow recouping of VAT input tax
- VAT refunds would be paid back to the business (not left in tax account) and therefore factored in the cash budget
- The business does not have credit line with merchandize suppliers. Therefore, merchandize supplier payments will be settled immediately. The assumption shall be discarded in the future when credit lines are established
- Ending stock is estimated at 20 percent (projected sales of approximately one week).

#### 4.1 Online retail shop

The business will be run by one owner, with the assistance of an intern during summer seasons. The operations will be conducted at the business owner's premises, which would greatly reduce operational and investment costs. The online retail shop will be developed and maintained by the owner at no additional costs. Generally, e-commerce platform service providers such as Shopify enable easy creation of web stores using their built-in website development tools and e-commerce engines. The e-commerce engines provide automatic integration into a seller's web page (web store). Therefore, the business owner would be able to easily build and maintain the online retail shop without the need of web development skills. Additionally, as per the cost behaviour theory in section 2.2, the business owner will not need to incur monthly fixed costs for website development and maintenance; instead, the business owner would only pay relatively low monthly costs (both fixed and variable) to Shopify for hosting the store (online retail shop) and utilising their web tools. Therefore, there will be a relative increase in variable costs due to a per transaction charge instituted by Shopify (e-commerce platform provider); meaning, the business would be supported by a cost structure shown in table 2 below

Table 2. Investment and cost structure for online retail shop

<b>SNo.</b>	<b>Description</b>	<b>Type of Cost</b>
1.	1 Printer	Investment cost
2.	Transaction fee (online shop)	Variable operating cost
3.	Card processing fees	Variable operating cost
4.	Inventory costs	Variable operating cost
5.	Advertising	Fixed operating cost
6.	Bank account	Fixed operating cost
7.	Depreciation	Fixed operating cost
9.	E-commerce platform	Fixed operating cost
10.	Internet and Communication	Fixed operating cost
11.	Lunch benefit (intern)	Fixed operating cost
12.	Sundries	Fixed operating cost
13.	Transport	Fixed operating cost
14.	YEL Insurance	Fixed operating cost

## 4.2 Traditional retail shop

The business will be run by one owner and a part time employee; and would be operational for six days of the week. An intern would be required from time to time to manage the business workload. The business would require relatively high investment costs (Table 3) in order to prepare the premises for operation; such investments will result in relatively high depreciation costs. Point of Sale equipment shall be leased for the first two years, and a decision to procure some can be revisited thereafter.

Table 3. Investment and cost structure for traditional retail shop

<b>SNo.</b>	<b>Description</b>	<b>Type of cost</b>
1.	1 coffee machine	Investment Cost
2.	1 printer	Investment Cost
3.	1 shop counter	Investment Cost
4.	1 small fridge	Investment Cost
5.	2 chairs (office and standard)	Investment Cost
6.	1 office desk	Investment Cost
7.	2 racks (apparel display)	Investment Cost
8.	3 racks (accessory display)	Investment Cost
9.	2 cabinets (merchandize storage and office)	Investment Cost
10.	1 tables (accessory display)	Investment Cost
11.	4 pcs full length mirrors	Investment Cost
12.	Card processing fees	Variable operating cost
13.	Inventory costs	Variable operating cost
14.	Advertising	Fixed operating cost
15.	Bank account	Fixed operating cost
16.	Depreciation	Fixed operating cost
17.	Internet and Communication	Fixed operating cost
18.	POS system	Fixed operating cost
19.	Rent and utilities	Fixed operating cost
20.	Sundries	Fixed operating cost
21.	Transport	Fixed operating cost
22.	TyEL Insurance	Fixed operating cost
23.	Web hosting	Fixed operating cost
24.	Wages and benefits	Fixed operating cost
25.	YEL insurance	Fixed operating cost

## 5 Budget development and estimation of capital

The budget development process' aim is to demonstrate viability of the traditional retail shop and online retail shop using the budgeted income statements and cash budgets from the master budget, as per the theory in section 2.3. The budget for each mode of operation was based on the common sales projections; hence, both modes share the same sales, and COGS, inventory and purchases budgets. However, the modes of operation have separate operating expenses, income statements and financial budgets due to the difference in their operating structures and costs as presented in sections below.

The master budget components are supported by budget-notes in appendix 8. The notes aim to facilitate the reader's understanding of the budget. Explanations in budget notes (appendix 8) are linked to budget items through note-numbers, which appear in the master budget in superscript.

### Sales Budget

Sales units, estimated unit costs, and sales prices provided by the business owner have been used to prepare a two-year sales budget as seen in appendix 4. Sales budget estimates show a total revenue growth of 31 percent, from € 44 123 in the first year to € 57 964 in the second year of budget. The projected growth is due to relatively low sales estimates in the first six months of the budget (no anticipated sales in the first two months), and a steady sales revenue in the second year.

**COGS, inventory, and purchases Budget:** as per the COGS theory in section 2.3, COGS was estimated at 45 percent of inventory sales (Figure 12). COGS value has been derived using the first year's unit costs and budgeted sales units as indicated in Table 4. A mark-up of 120 percent was used to derive estimated prices for both budget years, resulting in the same COGS percentage for the second year of budget.

Table 4. Total cost of goods sold for inventory sales

Name	Unit cost €, excl. VAT A	Budgeted sales units B	Total cost (A * B)
Accessory A	9,40	201	1 889
Accessory B	18,00	193	3 474
Accessory C	9,40	201	1 889
Accessory D	10,00	201	2 010
		<b>Total</b>	<b>9 263</b>

Only total inventory sales have been used in estimating COGS percentage in Figure 12. These are sales related to inventory that will be stocked by the business. Consignment inventory sales do not belong to the business, hence, were not used in calculating COGS percentage.

$$\left( \frac{\text{Total Cost of Goods Sold} \times 100\%}{\text{Total inventory sales}} \right) \times 100\%$$

$$\left( \frac{9\,263 \times 100\%}{20\,378} \right) \times 100\% = 45\%$$

Figure 12. COGS as percentage of sales

Since the business owner anticipates that sales would take some time to pick up, no sales were budgeted in the first two months (January and February). However, a minimal stock of 20 percent of COGS for March (€ 109) was suggested in order to cover any unanticipated sales for January and February, referred to as 'safety stock'. As per the COGS budget, purchases costs are anticipated to grow by 26 percent from € 9 465 in the first year to € 11 937 in the second year, in order to support the estimated inventory sales growth of 31 percent (appendix 4).

## 5.1 Online retail shop

As per section 2.2 (theory on cost behaviour), **operating expenses budget** in appendix 5 indicates that the nature of business under budget will have a relatively high proportion of fixed costs (78.5 percent) compared to variable costs (21.5 percent) for the first year of budget. Budget estimates show that fixed costs will remain the same for the second year of budget (sales volume is within relevant range); however, the proportion of fixed costs will decrease to 73.5 and that of variable costs will increase to 26.5 percent. The change in ratios is due to steady sales projected for the second year (sales are anticipated in January and February of the second year, unlike in the first year of budget). Having sufficient sales revenue to cover fixed administrative costs is the only way that businesses with relatively high fixed costs (for example, 78.5 percent of total cost) can guarantee a steady stream of income.

Advertising, human resource, and insurance constitute 50.8 percent of estimated fixed costs. Total costs have been projected to increase by 6.7 percent by the second year (from € 11 645 to € 12 430) as seen in appendix 5. The business owner's intention is to continue to explore cost effective ways of doing business as business environment changes, and plans to analyse the related financial effect through a budgeting toolkit.

**Budgeted income statement:** as per appendix 5, the first quarter of the first year of budget shows a net loss due to low sales revenue; however, the business projects a net income by the end of the first year of budget. Projections made for the first year of budget were:

- Gross profit of € 24 067, which represents a gross profit margin of 54.5 percent
- Operating expenses of € 11 645 (26.4 percent of sales euro).
- Operating profit of € 12 422 (28.2 percent operating profit margin)
- Net profit of € 10 086 (22.9 percent operating profit margin)

Projections for the second year of budget were:

- Gross profit of € 31 617 (gross profit margin of 54.5 percent)
- Operating expenses of € 12 430 (21.4 percent of sales euro).
- Operating profit projection of € 19 186 (33.1 percent operating profit margin)
- Net profit projection of € 14 912 (25.7 percent operating profit margin)

As per section 2.4 (theory on income tax) and appendix 6, provisional tax (pre-paid tax estimates) for the first and second year of budget have been estimated as € 2 336 (5.3 percent of sales euro) and € 4 275 (7.4 percent of sales euro) respectively. These income tax estimates pose a relatively low tax burden to the business compared to others in appendix 6. Furthermore, the budget projects a total gross profit and net profit growth rate of 31 percent and 48 percent by the end of the second year of budget, from € 24 067 and € 10 086 to € 31 617 and € 14 912 respectively.

**Budgeted capital expenditure** value of € 100 (Figure 13) was based on a fixed asset needed by the business owner for the two years of budget, in addition to other personal assets that will be used in the business operation.

Capital Expenditure Budget (Euros) - First and Second Year									
Item	Jan	Feb	Mar	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 1	Year 2
Printer	100	-	-	100	-	-	-	100	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
<b>Capital Expenditure</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>100</b>	<b>-</b>

Figure 13. Capital expenditure budget for online retail shop

**Cash budgets:** a cash collection and payment budget in appendix 5 has been prepared based on payment terms explained in section 2.3 (cash budget theory), and in budget notes (appendix 8). A combined cash budget in appendix 5 indicates an ending balance deficit of approximately € 900 (€ 901) in February of first year of budget, and highest ending cash balance surpluses of € 13 140 and € 29 035 by December of first and second



year respectively (Figure 14), which represents an increase of available-cash by 121 per cent. This indicates that business will have incremental accumulation of cash (idle cash) as seen in figure 14.

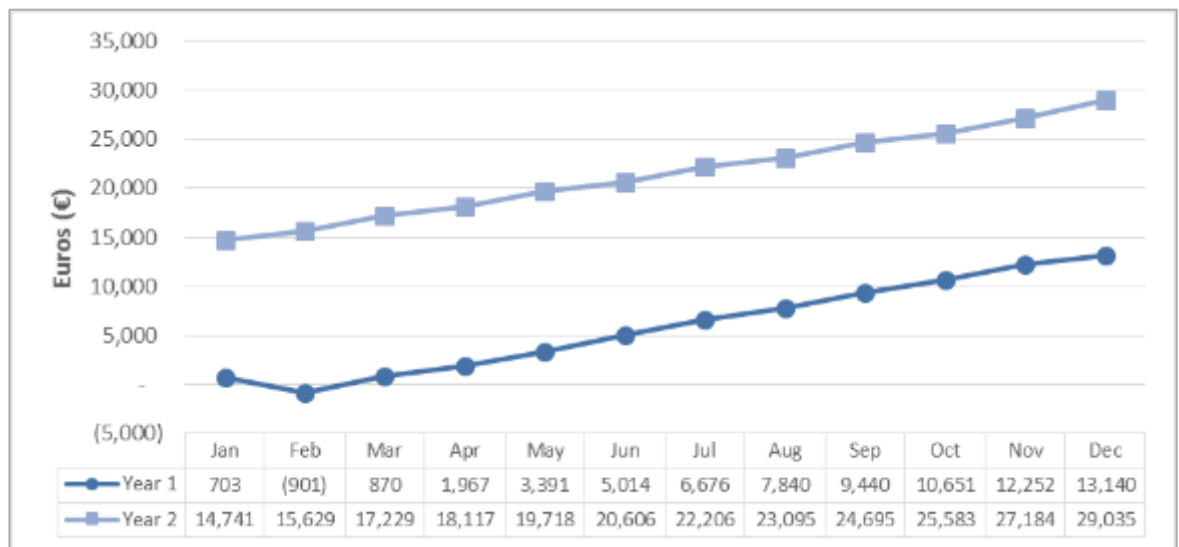


Figure 14. Monthly cash budget trend for online retail shop

**Budgeted balance sheet** shows a steady growth of business as indicated by asset/equity and liability projections in figure 15, with the exception of a negative financial position of € 181 in February of first year budget, due to an estimated cumulative operating loss of € 1 913. The budget also indicates that the business operation would grow by 106 percent between December of first and second year of budget, prior to additional capital structuring (budgeted balance sheet in appendix 5).

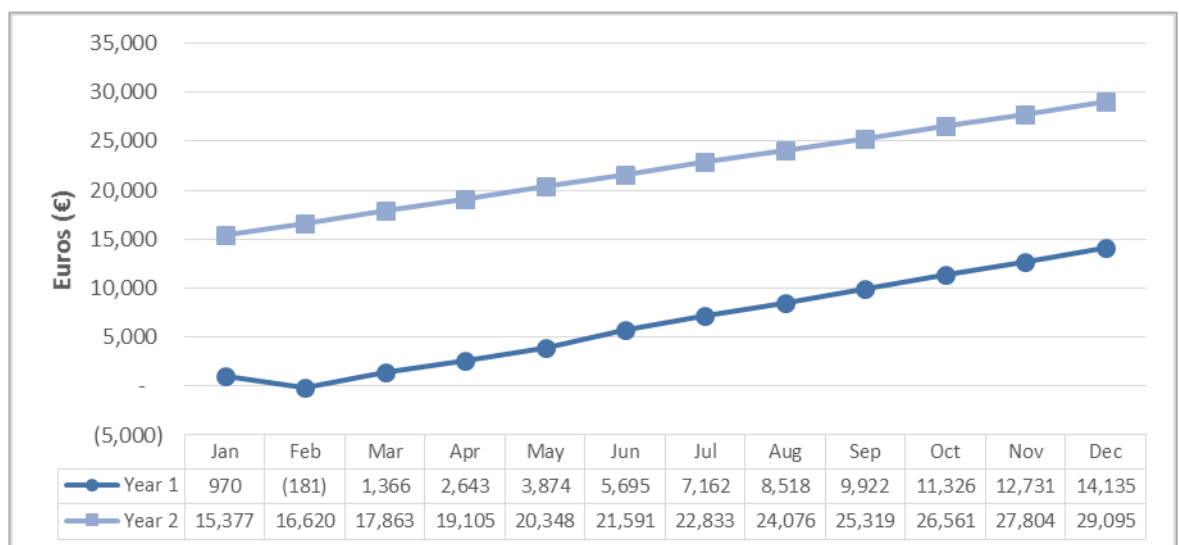


Figure 15. Indicative steady growth of the online retail sales business

In conclusion, although the project is confined to scope, a point was made by the project manager during discussions with the business owner, on the importance of cultivating sound business practice of investing excess cash where possible in order to maximise profit. The budgeting process had not factored efficient use of assets through excess cash investment projections since it is currently not a priority for the business owner. Such investments shall be factored once the business becomes operational and future budgets are prepared. It is the project manager's opinion that sound financial management practices should begin at the infancy stage of the business operation, so that good practices can be carried out throughout its existence.

## **5.2 Traditional retail shop**

Based on the sales projections in appendix 4, opening a traditional retail shop would not be a viable mode of operation because it would attract relatively high costs compared to the online retail shop. If the operating budgets in appendix 7 and appendix 5 are compared, it can be observed that the total cost of operation for the traditional retail shop is approximately three times the total cost of operation for the online retail shop. Additionally, capital expenditure budget for the traditional retail shop is significantly higher compared to that of the online retail shop (Figure 13 and Figure 16). As a result, the estimated gross profit from sales activities would not be sufficient to cover the operating expenses and generate profit for the traditional retail shop. Consequently, only losses are reflected throughout the two years of budget, as seen on the budgeted income statement in appendix 7. From the combined cash budget and budgeted balance sheet perspectives (appendix 7), there would be a lack of liquidity to pay for estimated obligations throughout the two years of budget, which would place the business in a position of bankruptcy from the beginning. This is evidenced by the monthly negative ending cash balances (cash-flow insolvency) and negative financial positions (balance-sheet insolvency) throughout the two years of budget as seen in appendix 7. Therefore, unless the business owner reviews their strategy, and find ways of increasing sales revenue and/or reduce projected costs of fixed assets where possible, the business would be inoperable under this mode of operation (projected insolvency).

Capital Expenditure Budget (Euros) - First and Second Year							
Item	Jan	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 1	Year 2
Office desk	100	100	-	-	-	100	-
Chair	100	100	-	-	-	100	-
Storage Cabinet	200	200	-	-	-	200	-
Office Cabinet	200	200	-	-	-	200	-
Full length mirrors	360	360	-	-	-	360	-
Racks (Apparel display)	500	500	-	-	-	500	-
Table (accessory display)	100	100	-	-	-	100	-
Racks (for accessory display)	660	660	-	-	-	660	-
Shop counter	100	100	-	-	-	100	-
Fridge (small)	120	120	-	-	-	120	-
Printer	100	100	-	-	-	100	-
Coffee machine	50	50	-	-	-	50	-
<b>Capital Expenditure</b>	<b>2,590</b>	<b>2,590</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,590</b>	<b>-</b>

Figure 16. Capital expenditure budget for the traditional retail shop

In closing discussions with the business owner, it was indicated that even though sales estimations were conservative, the online retail mode of operations still proved to be the optimal/ preferred mode of operation given the findings presented. Should there be changes in strategy in the future, the business owner can revisit the budget and refine the numbers through the budgeting toolkit to reflect the changes for analysis purposes.

### 5.3 Capital estimation

Capital estimation involves evaluation of optimistic, likely and pessimistic scenarios for the chosen business mode of operation (online retail shop), which are based on the business owner's outlook of the market and the availability of resources. The project manager, in consultation with the business owner, used the likely (base) scenario to derive optimistic and pessimistic scenarios. The optimistic scenario included a 15 percent and 10 percent increase in inventory unit sales and consignment unit sales respectively, which resulted in an increase in advertising costs of approximately 4 percent (advertising costs were estimated as a percentage of sales). The pessimistic scenario was formulated in order to anticipate the impact of factors such as but not limited to competition, inventory delivery delays, and increase in inventory costs. These factors were represented by a 15 percent and 10 percent reduction in inventory unit sales and consignment unit sales respectively, and 15 percent reduction of original mark-up, from 120 to 105 percent. Consequently, these scenarios affected the profit, income tax, and ending cash budget balance projections among other things, as seen in section 6, appendix 6, and appendix 9.

Additional capital requirement for the business venture is € 901 as seen in appendix 5. However, the business owner has to provisions for additional capital to support the business should the outcome deviate from the likely scenario. The additional capital (contingent capital) can be calculated using the financial data from pessimistic and optimistic

scenarios. Appendix 9 shows the combined cash budgets for pessimistic and optimistic scenarios, which indicate capital requirement of at least € 695 and € 1 217 respectively.

As per section 2.5 (theory on capital determination), the difference between the highest ending cash balance deficit for likely and pessimistic scenarios can be calculated as seen below:

$$\begin{aligned} \textit{Likely Scenario} - \textit{Pessimistic Scenario} &= \textit{Contingent capital} \\ 901 - 695 &= 206 \end{aligned}$$

The difference between the highest ending cash balance deficit for optimistic and likely scenarios can be calculated as seen below:

$$\begin{aligned} \textit{Optimistic Scenario} - \textit{Likely Scenario} &= \textit{Contingent capital} \\ 1\,217 - 901 &= 316 \\ \textit{Since } 316 > 206 \end{aligned}$$

$$\textit{Then contingent capital} = \text{€ } 316$$

As per the calculations above, the differences between the highest ending cash balance for optimistic and likely scenarios have produced a comparatively larger difference of € 316 compared to the difference between the highest ending cash balance for likely and pessimistic scenarios. Hence, the difference of € 316 would be regarded as contingent capital. The business owner estimated an initial available capital of € 1 500, which was factored in the budget process as seen in the balance sheet and combined cash budget for the online retail shop (appendix 5). Therefore, the total capital requirement for business can be derived by factoring the initial capital of € 1 500 in the calculation, which would result in a total of € 2 401 (sum of initial available capital of € 1 500 and additional requirement capital of € 901). In conclusion, the capital requirement for the business venture (as per capital determination theory in section 2.3), would be approximated to € 2 400, with contingent capital of € 320. Therefore, a total of € 2 720 (instead of € 2 717, which is the sum of € 1500, € 901 and € 316) would have to be readily available to support the business. The capital requirement estimations have been rounded-off in order to avoid specious accuracy.

## 6 Sensitivity and profitability analysis

The purpose of this analysis was to investigate the impact that scenarios namely; likely, optimistic, and pessimistic would have on the break-even point, margin of safety and overall potential profitability of the business under consideration. As per Table 5 below, a variable cost ratio of 51 percent of sales euro was projected for the likely and optimistic scenarios, and 54 percent for the pessimistic scenario. The variable cost ratio for the pessimistic scenario is comparatively higher than that of other scenarios due to the estimated decrease in unit sales and mark-up by 25 and 15 percentage points respectively. Optimistic scenario took into consideration the increase in sales unit only, which resulted in an estimated variable cost ratio of 51 percent (similar to that of a likely scenario). Likewise, the business would generate a contribution margin of 49 percent for each sales euro for both scenarios (optimistic and realistic); while pessimistic scenario would generate 46 (2 percent less than optimistic and pessimistic scenarios). However, if the pessimistic scenario would be realised, the business' ability to cover fixed costs and generate profit would be reduced by 3 percent compared to other scenarios as indicated by their respective contribution margins (€ 24 712 for optimistic, € 21 562 for likely, and € 15 969 for pessimistic scenarios).

Table 5. Summarized contribution margin income statement showing the impact of scenarios on profitability

Description	Budget Scenarios					
	Optimistic		Likely		Pessimistic	
	Amount (€)	%	Amount (€)	%	Amount (€)	%
Sales revenue	50 581	100%	44 123	100%	35 096	100%
- Variable cost	25 869	51%	22 561	51%	19 127	54%
Contribution margin	24 712	49%	21 562	49%	15 969	46%
- Fixed Cost	9 500	19%	9 140	21%	9 140	26%
Operating income	15 212	30%	12 422	28%	6 829	19%

Optimistic scenario's operating profit margin was slightly higher (at 30 percent) than that of likely scenario (28 percent), which indicates that should the optimistic scenario hold true, the business would make a 30 percent-profit from each sales euro (2 percent more than that of the likely scenario). Conversely, the business would relatively lose significant operating profit margin if the pessimistic scenario holds true. The pessimistic scenario would generate only a 19 percent-profit from each sales euro, compared to a 28 percent-profit for the likely scenario (9 percent less than likely scenario); meaning, it would cause

a 45 percent deviation from budget, if the business budget would be based on the likely scenario. These business scenarios would also have an influence on the sales revenue buffer that would exist (margin of safety), and the period in which the business would break even as detailed in sections below.

### 6.1 Break-even point and Margin of safety for likely scenario

Table 6 in Appendix 10 shows the derivation of contribution margin among other things, used in calculating break-even sales (below) for the likely scenario, as per section 2.6 (theory on break-even point and margin of safety):

$$\text{WACMR} = \frac{\text{Total Contribution Margin}}{\text{Total Sales Revenue}}$$

$$\text{WACMR} = \frac{€ 21\,562}{€ 44\,123}$$

$$\text{WACMR} = 0.48868 = 48.868\%$$

$$\text{Break even sales} = \frac{\text{Fixed Costs}}{\text{WACMR}}$$

$$\text{Break even sales} = \frac{€ 9\,140}{48.868\%}$$

$$\text{Break even sales} = € 18\,703.45 \text{ (approximately € 18\,703)}$$

Break-even sales for the likely scenario would be € 18 703 (approximately 42 percent of sales revenue), whereby accessory A, B, C, D, High End and Standard would contribute € 1 758, € 3 236, € 1 758, € 1 889, € 5 705, and € 4 358 to break-even sales respectively (table 6 in appendix 10). If the likely scenario holds true, the business will reach break-even sales by the seventh month (July) of the first year of budget as per the cumulative sales revenue shown in the sales budget (appendix 4). Estimated sales revenue by end of the first year amounts to € 44 123, resulting in the margin of safety of € 25 420 as shown below, which is approximately 58 percent of the sales revenue. This implies that all things equal, sales may drop as far as 58 percent of total sales revenue before the business starts experiencing losses.

$$\text{MOS} = \text{Expected Sales} - \text{Break Even sales}$$

$$\text{MOS} = € 44\,123 - € 18\,703$$

$$\text{MOS} = € 25\,420$$

## 6.2 Break-even, margin of safety and profitability for pessimistic scenario

Table 7 in appendix 10 shows the derivation of contribution margin for pessimistic scenario among other things, which is used in calculating break-even point in sales as seen below.

$$\text{WACMR} = \frac{\text{Total Contribution Margin}}{\text{Total Sales Revenue}}$$

$$\text{WACMR} = \frac{€ 15 969}{€ 35 096}$$

$$\text{WACMR} = 0.45501 = 45.501\%$$

$$\text{Break even sales} = \frac{€ 9 140}{45.501\%}$$

$$\text{Break even sales} = € 20 087.47 \text{ (approximately € 20 088)}$$

Break-even sales for the pessimistic scenario is € 20 088 (approximately 57 percent of sales revenue), estimated to be reached by the ninth month of the first year of budget as per the cumulative sales revenue shown in the sales budget (figure 17 in appendix 10). Accessory A, B, C, D, High end, and Standard would contribute € 1 808, € 3 314, € 1 808, € 1 928, € 6 328, and € 4 901 to break-even sales respectively (table 7 in appendix 10). Since the estimated sales revenue for the first year of budget is € 35 096, the resulting margin of safety would be € 15 009 (approximately 43 percent of sales revenue) as shown below:

$$\text{MOS} = € 35 096 - € 20 088$$

$$\text{MOS} = € 15 009$$

All things equal, the business would not be in a loss making position if its sales revenue declines, provided the decline does not exceed 43 percent of the estimated sales revenue.

## 6.3 Break-even, margin of safety and profitability for optimistic scenario

Using data in table 8 of appendix 10, weighted average contribution margin ratio was derived as seen below:

$$\text{WACMR} = \frac{\text{Total Contribution Margin}}{\text{Total Sales Revenue}}$$

$$\text{WACMR} = \frac{€ 24 712}{€ 50 581}$$

$$\text{WACMR} = 0.48857 = 48.857\%$$

$$\text{Break even sales} = \frac{€ 9 500}{48.857\%}$$

$$\text{Break even sales} = € 19 444.50 \text{ (approximately € 19 445)}$$

Break-even sales for the optimistic scenario is € 19 445 (approximately 38 percent of sales revenue), which could be achieved by the seventh month of the first year of budget as seen in the cumulative sales budget (figure 18 in appendix 10). Accessory A, B, C, D, High end, and Standard would contribute € 1 886, € 3 481, € 1 886, € 2 022, € 5 795, and € 4 375 respectively to break-even sales of € 19 445. The estimated sales revenue for the first year is € 50 581, which would result in a margin of safety of € 31 136 (approximately 62 percent of sales revenue) as shown below:

$$\text{MOS} = \text{€ } 50\,581 - \text{€ } 19\,445$$

$$\text{MOS} = \text{€ } 31\,136$$

In conclusion, it remains to be seen what the actual financial performance for the first year of business will be, but the sensitivity analysis indicates that the pessimistic scenario still offers a relatively decent MOS (43 percent of estimated sales revenue). In discussions with the business owner, a critical note was made on the product mix, which indicates that two of the six product groups (standard and high end) have relatively high product mix percentage and contribution margin per unit as seen in the three scenarios (appendix 10). Therefore, all things equal, a decrease in sales volume of the standard and high-end product groups would cause a significant negative impact on the operating income. Conversely, if the same rate of decrease in sales-volume were experienced on products with relatively low unit contribution margin, there would be a lesser impact on the operating income. The Standard and high end product groups in total constitute about 52 to 56 percent of the projected total sales units, and command about 53 to 56 percent of the total contribution margin expected to be generated by the business.

It also became clear to the business owner that it is imperative that a strategy exists to effectively drive the sales of all products in portfolio; and where appropriate, seek opportunities to drive-up sales of products with relatively higher contribution margins. The project manager advised that frequent monitoring of product groups performance would enable business owner to timely note any non-performing product groups, and devise and implement corrective measures to boost their sales revenues and contribution margins.



## 7 Project Evaluation

In the course of executing the project, the project manager had an opportunity to reflect on the entire project process and make note of the challenges experienced and benefits attained.

### Challenges

Like any other project implementation, there are challenges that need resolution to ensure successful execution of the project. One of the challenges faced in this project was to *control the product review and amendment process*, particularly when product development is intertwined with amendment of business strategy. Although the project scope indicated that the responsibility of formulating a business strategy lies with the business owner, new and/or reviewed information originating from business strategy had to be incorporated frequently, in light of new information, in order to present deliverables that are relevant to the business. However, iterations must be controlled by agreeing on the number of reviews; thereafter if and when necessary, a mutual agreement should be reached to incorporate the unanticipated but critical changes in order to manage the project within the agreed timeline. Brainstorming and strategizing is a continuous process especially in entrepreneurship. Entrepreneurs always look for ways to improve business plans/performance; therefore, better ideas often emerge given enough time. In this case, having a budgeting toolkit as one of the deliverables has helped in controlling the review process by mutually agreeing on a cut-off point, after which the business owner can utilize the budgeting toolkit to conduct further analysis with the support of a comprehensive user guide.

The inevitable change in the project timeline gave rise to challenges in data and information gathering. As a result, the project manager had to make effective use of email and phone communications to gather data and information from the business owner and potential key partners instead of relying only on scheduled meetings. Such flexibility enabled the project tasks to continue despite the challenge.

### Benefits and learnings

The commissioning entity, through the business owner, has been able to realize the anticipated benefits from the project. Through the financial assessments/ analyses of modes of operation provided by the project manager, business owner was able to

- rule out the establishment of a physical retail store as an impractical business implementation under current sales projections

- identify product groups (standard and high-end products) that may have potential to cause significant negative impact on the profits, should the business strategy fail to align with the
- agenda of ensuring efficient sales of the products in the standard and high-end product groups
- understand how different scenarios would affect business profitability and break-even points
- have a two-year budget that can be further refined through a budgeting toolkit, in order to align to changes in the business environment or strategy
- obtain a total capital requirement estimate of € 2 720 based on the current projections for the online retail shop

The project-process was instrumental in enhancing the project manager's *practical knowledge in budget preparation*. Faced with real business scenarios and requirements, the project manager was able to employ the principles of financial budgeting, sensitivity analysis, and in the course, the project manager was able to build an end-to end budgeting process in form of a budgeting toolkit. Additionally, as a consultant to the business owner, the project manager had to conduct *research on the requirements for establishing an e-commerce business operation and on the financial accounting treatment for private entrepreneurs* among other things; and subsequently advise the business owner where appropriate (particularly in matters that would affect the financial budget). Final decisions made by the business owner were implemented accordingly. Consequently, the project manager was able to

- establish a network of contacts that could be leveraged in the future to accomplish her own entrepreneurial aspirations
- gain insight into e-commerce operations and their potential tax implications that need to be taken into consideration; for example, the implications of VAT on distant selling , especially when the business has annual sales that exceed the annual distance selling threshold of a particular country, in which an entrepreneur sells its products

In conclusion, the project process has provided valuable lessons for the project manager (thesis author) in areas of budgeting and entrepreneurship. Furthermore, while one may be equipped with theoretical knowledge attained from an academic setting, dealing with real life problems/ needs (in form of project requirements) exposes one to an array of factors for consideration during project implementation. Such exposure is not only pivotal in ingraining theoretical knowledge in one's mind but also in complementing it with practical knowledge gained from the process. It is the project manager's opinion that this is the best way to ensure longer mental retention of knowledge; and is therefore, thankful to have had an opportunity to collaborate with a willing commissioning entity in accomplishing this project.

## References

- Arkima A. 2014. Corporate tax. HAAGA-HELIA University of Applied Sciences. Course Code: ACC3LF004-9. Accessed: 20 September 2014.
- Autio E. 2009. The Finnish paradox: the curious absence of high-growth entrepreneurship in Finland. The Research Institute of the Finnish Economy, ISSN 0781-6847, 1197, pp 1. URL: <https://www.etla.fi/julkaisut/dp1197-fi/>. Accessed: 6 March 2015.
- Barringer, B. 2009. Preparing Effective Business Plan. Pearson Education. Upper Saddle River.
- Braun, K., Tietz, W. & Harrison, W. 2010. Managerial Accounting. 2nd ed. Pearson Education. Upper Saddle River.
- Enterprise Finland. Form of business. URL: <https://www.yrityssuomi.fi/en/yritysmuodot>. Accessed: 3 December 2015.
- Etera. 2015. What does YEL insurance for the self-employed cost? URL: <http://www.etera.fi/en/pension-insurance/yel-self-employed/what-does-yel-insurance-cost>. Accessed: 2 November 2015.
- Elo. 2015. TyEL insurance employer's guide. URL: [http://www.elo.fi/~media/files/vakuutaminen%20esitteet/tyel-vakuutus\\_tyonantajan\\_opas\\_en.pdf](http://www.elo.fi/~media/files/vakuutaminen%20esitteet/tyel-vakuutus_tyonantajan_opas_en.pdf). Accessed 2 November 2015.
- Finnish Enterprise Agencies. 2015. Guide-Becoming an entrepreneur in Finland. URL: [http://www.uusyrityskeskus.fi/sites/default/files/Opas\\_englanti\\_2015\\_web\\_0.pdf](http://www.uusyrityskeskus.fi/sites/default/files/Opas_englanti_2015_web_0.pdf). Accessed 23 October 2015.
- Hansen, D., Mowen, M. & Guan, L. 2009. Cost management: accounting and control. 6th ed. South-Western Cengage Learning. Mason.
- HBSPress (Harvard Business School Press) & SHRM (Society for Human Resources Management). 2005. The essentials of finance and budgeting. Harvard Business School Publishing Corporation. Boston.

HM Revenue & Customs. VATPOSG3510 - Main rules: distance selling: meaning of the term 'distance selling'. URL: <http://www.hmrc.gov.uk/manuals/vatposgmanual/vat-posg3510.htm>. Accessed: 10 December 2015

Horngren, C., Datar, S. & Rajan, M. 2012. Cost Accounting: A managerial emphasis. 14th ed. Prentice Hall. New Jersey.

Kaplan S. 2012. The business model innovation factory: how to stay relevant when the world is changing. John Wiley & Sons Inc. Hoboken.

Madegowda, J. 2007. Management Accounting. Himalaya Publishing House. Mumbai.

Markides, C. & Oyon, D. 2010. What to do against disruptive business models (when and how to play two games at once). MIT Sloan Management Review, 51, 4, pp. 25.

Osterwalder, A. & Pigneur, Y. 2010. Business model regeneration. John Wiley & Sons Inc. Hoboken.

Reynolds, P., Storey, D. & Westhead, P. 1994. Cross –national Comparisons of the Variation in the New Firm Formation Rates. Regional Studies, 28, 4, pp 343. URL: <http://www.tandfonline.com/doi/abs/10.1080/00343409412331348306?journalCode=cres20#preview>. Accessed: 6 March 2015.

Scarborough N. 2011. Essentials of entrepreneurship and small business management. 6th ed. Prentice Hall. Boston.

Shim, J. Siegel, J. & Shim, A. 2011. Budgeting basics and beyond. John Wiley & Sons Inc. Hoboken.

Stancill J. 1986. How much money does your new venture need? Harvard Business Review. URL: <https://hbr.org/1986/05/how-much-money-does-your-new-venture-need>. Accessed: 30 July 2015.

Taylor, P. 2002. Cash flows and budgeting made easy: How to set and monitor financial targets in any organisation. 4th ed. How to Books Ltd. Oxford.

The Economist 2013. If in doubt innovate. URL: <http://www.economist.com/news/special-report/21570834-nordic-region-becoming-hothouse-entrepreneurship-if-doubt-innovate>. Accessed: 6 March 2015.

Wade, P. & Wade, W. 2012. Scenario Planning: A Field Guide to the Future. John Wiley & Sons Inc. Hoboken.

Walther, L. & Skousen, C. 2009. Managerial and Cost Accounting. Ventus Publishing ApS. Frederiksberg.

Wyatt N. 2012. Budgeting and forecasting: how to deliver accurate numbers. Pearson Education. Harlow.

VERO. Tax percentage calculator. URL: <http://prosentti.vero.fi/VPL2015/Sivut/Aloitus.aspx>. Accessed: 16 November 2015.

VERO. 2010. Starting up business. URL: [https://www.vero.fi/en-US/Precise\\_information/International\\_tax\\_situations/Starting\\_up\\_business\(14929\)#ExplanationofcurrenttaxstatusX](https://www.vero.fi/en-US/Precise_information/International_tax_situations/Starting_up_business(14929)#ExplanationofcurrenttaxstatusX). Accessed: 18 October 2015.

VERO. 2014a. Filing Finnish income tax returns – general and limited partnerships. URL: [https://www.vero.fi/en-US/Companies\\_and\\_organisations/Foreign\\_business\\_in\\_Finland/Filing\\_Finnish\\_income\\_tax\\_returns\\_\\_gener\(21530\)](https://www.vero.fi/en-US/Companies_and_organisations/Foreign_business_in_Finland/Filing_Finnish_income_tax_returns__gener(21530)). Accessed: 21 October 2015.

VERO. 2014b. Refunds via tax account. URL: [https://www.vero.fi/en-US/Companies\\_and\\_organisations/Tax\\_Account/Refunds\\_via\\_Tax\\_Account\(21320\)](https://www.vero.fi/en-US/Companies_and_organisations/Tax_Account/Refunds_via_Tax_Account(21320)). Accessed: 18 October 2015.

VERO. 2014c. Prepayments of tax for 2015: Individual taxpayers – physical persons. URL: [https://www.vero.fi/en-US/Precise\\_information/Tax\\_prepayment/Prepayments\\_of\\_tax\\_for\\_2015\\_Individual\\_t\(19363\)](https://www.vero.fi/en-US/Precise_information/Tax_prepayment/Prepayments_of_tax_for_2015_Individual_t(19363)). Accessed: 21 October 2015.

VERO. 2015a. Employer's contributions to be reported and paid to the Tax Administration. URL: [https://www.vero.fi/en-US/Companies\\_and\\_organisations/Being\\_an\\_employer/Employers\\_contributions\\_to\\_be\\_reported\\_a\(16090\)](https://www.vero.fi/en-US/Companies_and_organisations/Being_an_employer/Employers_contributions_to_be_reported_a(16090)). Accessed: 15 November 2015.

VERO. 2015b. Tuloverotus - liikkeen- tai ammatinharjoittaja. URL: [http://www.vero.fi/fi-FI/Yritys\\_ja\\_yhteisoasiakkaat/Liikkeen\\_ja\\_ammattinharjoittaja/Tuloverotus](http://www.vero.fi/fi-FI/Yritys_ja_yhteisoasiakkaat/Liikkeen_ja_ammattinharjoittaja/Tuloverotus). Accessed 20 November 2015.

VERO. 2015c. Request form for change of reporting and payment periods of un-prompted tax types (4071e). URL: [https://www.vero.fi/en-US/Precise\\_information/Forms/Forms\\_for\\_companies\\_and\\_corporate\\_entities/Request\\_form\\_for\\_change\\_of\\_reporting\\_and\\_\(14834\)](https://www.vero.fi/en-US/Precise_information/Forms/Forms_for_companies_and_corporate_entities/Request_form_for_change_of_reporting_and_(14834)). Accessed: 25 November 2015



Sno	Activity	Responsibility	Weeks																											
			13 - 19	20	21	22	23	24	25 - 40	41	42	43	44	45	46	47	48	49	50	51	52 - 1	2	3	4	5	6	7	8	9	
	<b>Project Task 4</b>																													
10	Create master budget for two scenarios and determine capital requirements	PM																												
11	Meet with customer to show draft	PM + BO																												
12	Incorporate changes/feedback	PM																												
	<b>Project Task 5</b>																													
13	Prepare sensitivity analysis	PM																												
	<b>Project Task 6</b>																													
14	Create budget toolkit with user guide	PM																												
15	Submit draft toolkit and user guide for feedback solicitation and/or testing/ use	PM																												
16	Use toolkit for further analysis	BO																												
17	Feedback session and review	PM + BO																												
18	Close project																													

PM - Project Manager (Thesis writer), BO - Business Owner, THA - Thesis Adviser, MA - Methods Adviser, LC



Sno	Activity	Responsibility	Weeks																											
			13 - 19	20	21	22	23	24	25 - 40	41	42	43	44	45	46	47	48	49	50	51	52 - 1	2	3	4	5	6	7	8	9	
	<b>Project Task 4</b>																													
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15	Submit draft toolkit and userguide for feedback solicitation and/or testing/ use	PM																												
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## Appendix 2: Interview questions

SNo.	Theories/Concepts/Models	(Interview) Questions	Methods (primary/ secondary)	Information expectations
1.	Model A: Business Canvas	<b>(Customer Segment and Value Proposition)</b>  MA01: How is the business value proposition structured?  MA02: How would you group target customers for which value proposition intended?	Primary research Interview	Value proposition is a combination of product and/or service offering tailored to deliver value to customer  Is there more than one customer segment? Products/services offered to one segment slightly vary to those offered to another customer segment.
2.		<b>(key partners)</b>  MA03: What potential suppliers of inventory and services have you planned to use running the business?  MA04: In which countries are your suppliers of service and inventory located  MA05: What are the anticipated payment terms for each supplier?		Names/Categories of suppliers, the/services they supply  Is it only Finland? There was consideration of other suppliers in other countries. Are there any potential import costs?  Cash/ credit? Potential transactions, frequency and due dates (if on credit). Useful in cash flow projections
3.		<b>(Key resources)</b>  MA06: What kind of resources (physical or otherwise) does the business require to support the business?		Plans for asset procurement, Cost list need to be obtained

SNo.	Theories/Concepts/Models	(Interview) Questions	Methods (primary/ secondary)	Information expectations
4.	<b>(Key activities)</b>	MA07: How do you plan to make the resources available for use by the business?  MA08: What activities would you need to perform to run the business?	Primary research Interview	Buy or lease? Are there asset in possession that would be used in business?  Sales, web maintenance, settle bills, procure inventory and services, promote business, and so on. Are resources available to support these activities? (MA06)
5.	<b>(Channels)</b>	MA09: How will customers gain access to merchandize/ How will you sell and deliver merchandize to target customers?  MA10: How will you promote/crease product awareness to your target market you use to reach customers?		Have a shop, sell online, or both, display on events or cultural institutions? There could be hidden costs here (that customer has not thought of)  (Blogging, maintain media accounts, brochures and more. Channels will give insight of potential advertising costs.
6.	<b>(Relationship Management)</b>	MA11: How to you plan to maintain relationship with customers who have purchased products to encourage repeat purchase?		Is there going to be some kind of post purchase contact (Loyalty card schemes for example require investment by the business)? Will this contact raise potential costs to the business? If discounts are considered, then they need to be reflected in budget
7.	<b>(Revenue streams)</b>	MA12: How do you plan to generate income for the business?		Through Sales. Mark-up percentage? (For sales budget purposes)

SNo.	Theories/Concepts/Models	(Interview) Questions	Methods (primary/ secondary)	Information expectations
8.		<b>(Cost structure)</b> MA13: What costs will the business have to incur to run the business?	Primary (Interview) Secondary: business document containing cost data, quotes from key partners	Will you offer discounts? What percentages and how will the discount scheme be structured?  List of all possible costs (sales, administration)
9.	Theory A: Master Budget	TA3: What rationale is used to set the sales target for the business?  TA4: what sales target is the business setting  TA5: How will seasonality (common to retail accessory/apparel businesses) affect your yearly sales?  TA6: What is the value of inventory on hand (if still available)?  TA7: How do you anticipate your sales to grow for next year?  TA8: How do you plan to finance the business?	Primary (Interview) Secondary: business document containing cost data, quotes from key partners	Target sales income? Projected sales based on market analysis?  Sales target in quantity or value will enable preparation of sales budget  Volume fluctuations in budget should be taken into account if there is seasonality influence on sales  Will enable to have opening balance for Inventory account for budgeting purposes (Purchase Budget)  Percentage of sales growth for deriving sales budget for 2 <sup>nd</sup> year  Any borrowing? (balance sheet data)
10.	Theory B: Capital requirement		Primary (Interview) Secondary: data from PT 4	Need to establish a budget for optimistic and pessimistic scenarios.

SNo.	Theories/Concepts/Models	(Interview) Questions	Methods (primary/ secondary)	Information expectations
		TB01: What do you perceive to be pessimistic and optimistic scenarios for the business?		Sales volume, revenue, cost structure that would feature in an optimistic scenario  Sales volume, revenue, cost structure that would feature in an optimistic scenario
11.	Theory C: Income taxation	TC01: How would you financially support yourself during start-up phase? What would be the estimated income from other sources?	Primary (Interview)	Would work part time? If so, what would be the estimated income to from part time work? Information will help in calculating estimated progressive tax rate to be used in calculating income tax for the business
12.	Theory D: Sensitivity Analysis (CVP)	TD01: What information would you like to extract from sensitivity analysis?  TD02: What percentage variation on sales, price, or fixed cost should be considered in sensitivity analysis?	Use data from PT4	Sensitivity analysis data Break-even point, sales required for a particular target profit? Other requirements? What if revenue, sales volume, prices increase/ decrease by a certain percentage?

### Appendix 3. Summarized findings of the business operating modes

Blocks	Business Operating Modes	
Channel	Traditional retail shop	Online retail shop
<b>Customer segment</b>	Single segment: women teenagers – above 50 (about 17 - 60 years)	
<b>Key partners</b>	Logistic service providers (Posti)	
	Suppliers of furniture and fixtures (IKEA, SOTKA and others)	Not applicable
	Suppliers of electronic equipment (example; Gigantti, Expert, and Verkkoappi), and communication services (DNA, Saunalahti)	
	Inventory suppliers (designers) from Finland, Baltic and/or Scandinavian countries	
	Human resource suppliers: Higher learning institutions, social network forums for job seekers, and recruitment agencies,	
	Tax administration (Verohallinto)	
	Packaging and stationery suppliers (material to be sourced online)	
	Social media networks and printing companies (for promotion and advertising)	Social media networks, cultural markets (example, Korjaamo and others)
	Web hosting service provider	E-commerce platform provider (Shopify)
	Landlord	N/A
<b>Key Activities</b>	Sales, advertising, administration, inventory management and purchase, and after sales support	
<b>Key resources</b>	Human resource: three persons (business owner, intern, employee)	Human resource: two persons (intern and business owner)
	Electronic equipment and IT services such as: <ul style="list-style-type: none"> <li>– Point of sale systems</li> <li>– Internet access</li> <li>– Printer</li> </ul>	Electronic equipment and IT services such as: <ul style="list-style-type: none"> <li>– E-commerce platform</li> <li>– Internet access</li> <li>– Printer</li> </ul>
	Retail shop location	Residential premises
	Financial Resources (own funding and/or loans)	
	Materials for packaging and presentation	Freight packaging

<b>Value proposition</b>	To offer a rich variety of hand-made apparel and accessories, chosen specifically to emphasize unique beauty of every consumer. We believe in independent creative designers, personalized service and one-of-the-kind products	
<b>Customer relations</b>	Business aims to cultivate relationship and repeat business through channels such as: <ul style="list-style-type: none"> <li>– Email platform: to inform of new merchandize, offers, and elicit feedback</li> <li>– Social networks (Facebook, Pinterest, and Twitter) and fashion blog: to connect with existing and new customers, and have insight into trends, consumer preferences, and popularity of stocked merchandize.</li> </ul>	
<b>Cost structure</b>	Wages for part time employee and benefits for interns	Benefits for interns
	Rent and utility for retail location	No rent and utility costs.
	Relatively high investment in fixed assets (Table 2)	Relatively low investment (Table 3)
	No Freight charges	Freight charges for posting Merchandize (passed to consumer)
	Advertising costs	
	Insurance cost: TyEL	Insurance cost: YEL
	Leasing point of sale systems	E-commerce platform charges
	Inventory costs	
	Transport costs	
	Packaging materials (budgeted in sundries)	Packaging materials (budgeted in sundries).
	<b>Revenue structure</b>	Mark-up percentage applicable to all products (minimum 120%)

#### Appendix 4. Sales budget and COGS, inventory and purchases budget

Traditional and Online Retail Shop - Circlet & Lines																	
Sales Budget (Euros) - First Year																	
Description	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Jul	Aug	Sep	Qtr 3	Oct	Nov	Dec	Qtr 4	Year 1
<b>Inventory Sales</b>																	
<b>Accessory A</b>																	
Sales unit	-	-	12	12	15	21	21	57	22	22	22	66	22	22	22	66	201
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	-	-	248	248	310	434	434	1,179	455	455	455	1,365	455	455	455	1,365	4,157
<b>Accessory B</b>																	
Sales unit	-	-	11	11	15	20	21	56	21	21	21	63	21	21	21	63	193
Sales price	40	40	40		40	40	40		40	40	40		40	40	40		
Sales revenue	-	-	436	436	594	792	832	2,218	832	832	832	2,495	832	832	832	2,495	7,643
<b>Accessory C</b>																	
Sales unit	-	-	12	12	15	21	21	57	22	22	22	66	22	22	22	66	201
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	-	-	248	248	310	434	434	1,179	455	455	455	1,365	455	455	455	1,365	4,157
<b>Accessory D</b>																	
Sales unit	-	-	12	12	15	21	21	57	22	22	22	66	22	22	22	66	201
Sales price	22	22	22		22	22	22		22	22	22		22	22	22		
Sales revenue	-	-	264	264	330	462	462	1,254	484	484	484	1,452	484	484	484	1,452	4,422
<b>Total Inventory Sales</b>	-	-	1,196	1,196	1,544	2,123	2,162	5,829	2,226	2,226	2,226	6,677	2,226	2,226	2,226	6,677	20,378
<b>Consignment Sales</b>																	
<b>High End</b>																	
Sales unit	-	-	10	10	12	13	18	43	18	18	18	54	18	18	18	54	161
Sales price	84	84	84		84	84	84		84	84	84		84	84	84		
Sales Revenue	-	-	836	836	1,003	1,087	1,505	3,595	1,505	1,505	1,505	4,514	1,505	1,505	1,505	4,514	13,460
<b>Standard</b>																	
Sales unit	-	-	13	13	16	18	20	54	20	20	20	60	20	20	20	60	187
Sales price	55	55	55		55	55	55		55	55	55		55	55	55		
Sales Revenue	-	-	715	715	880	990	1,100	2,970	1,100	1,100	1,100	3,300	1,100	1,100	1,100	3,300	10,285
<b>Total Consignment Sales</b>	-	-	1,551	1,551	1,883	2,077	2,605	6,565	2,605	2,605	2,605	7,814	2,605	2,605	2,605	7,814	23,745
<b>Grand Total Sales Revenue</b>																	
	-	-	2,747	2,747	3,428	4,199	4,767	12,394	4,830	4,830	4,830	14,491	4,830	4,830	4,830	14,491	44,123
<b>Grand Total Sales (Cumulative)</b>	-	-	2,747	2,747	6,175	10,374	15,141	15,141	19,971	24,801	29,632	29,632	34,462	39,292	44,123	44,123	44,123



Traditional and Online Retail Shop - Circlet & Lines																	
Sales Budget (Euros) - Second Year																	
Description	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Jul	Aug	Sep	Qtr 3	Oct	Nov	Dec	Qtr 4	Year 2
<b>Inventory Sales</b>																	
<b>Accessory A</b>																	
Sales unit	22	22	22	66	22	22	22	66	22	22	22	66	22	22	22	66	264
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	455	455	455	1,365	455	455	455	1,365	455	455	455	1,365	455	455	455	1,365	5,460
<b>Accessory B</b>																	
Sales unit	21	21	21	63	21	21	21	63	21	21	21	63	21	21	21	63	252
Sales price	40	40	40		40	40	40		40	40	40		40	40	40		
Sales revenue	832	832	832	2,495	832	832	832	2,495	832	832	832	2,495	832	832	832	2,495	9,979
<b>Accessory C</b>																	
Sales unit	22	22	22	66	22	22	22	66	22	22	22	66	22	22	22	66	264
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	455	455	455	1,365	455	455	455	1,365	455	455	455	1,365	455	455	455	1,365	5,460
<b>Accessory D</b>																	
Sales unit	22	22	22	66	22	22	22	66	22	22	22	66	22	22	22	66	264
Sales price	22	22	22		22	22	22		22	22	22		22	22	22		
Sales revenue	484	484	484	1,452	484	484	484	1,452	484	484	484	1,452	484	484	484	1,452	5,808
<b>Total Inventory Sales</b>	<b>2,226</b>	<b>2,226</b>	<b>2,226</b>	<b>6,677</b>	<b>2,226</b>	<b>2,226</b>	<b>2,226</b>	<b>6,677</b>	<b>2,226</b>	<b>2,226</b>	<b>2,226</b>	<b>6,677</b>	<b>2,226</b>	<b>2,226</b>	<b>2,226</b>	<b>6,677</b>	<b>26,706</b>
<b>Consignment Sales</b>																	
<b>High End</b>																	
Sales unit	18	18	18	54	18	18	18	54	18	18	18	54	18	18	18	54	216
Sales price	84	84	84		84	84	84		84	84	84		84	84	84		
Sales Revenue	1,505	1,505	1,505	4,514	1,505	1,505	1,505	4,514	1,505	1,505	1,505	4,514	1,505	1,505	1,505	4,514	18,058
<b>Standard</b>																	
Sales unit	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	60	240
Sales price	55	55	55		55	55	55		55	55	55		55	55	55		
Sales Revenue	1,100	1,100	1,100	3,300	1,100	1,100	1,100	3,300	1,100	1,100	1,100	3,300	1,100	1,100	1,100	3,300	13,200
<b>Total Consignment Sales</b>	<b>2,605</b>	<b>2,605</b>	<b>2,605</b>	<b>7,814</b>	<b>2,605</b>	<b>2,605</b>	<b>2,605</b>	<b>7,814</b>	<b>2,605</b>	<b>2,605</b>	<b>2,605</b>	<b>7,814</b>	<b>2,605</b>	<b>2,605</b>	<b>2,605</b>	<b>7,814</b>	<b>31,258</b>
<b>Grand Total Sales Revenue</b>																	
	<b>4,830</b>	<b>4,830</b>	<b>4,830</b>	<b>14,491</b>	<b>4,830</b>	<b>4,830</b>	<b>4,830</b>	<b>14,491</b>	<b>4,830</b>	<b>4,830</b>	<b>4,830</b>	<b>14,491</b>	<b>4,830</b>	<b>4,830</b>	<b>4,830</b>	<b>14,491</b>	<b>57,964</b>
<b>Grand Total Sales (Cumulative)</b>	<b>48,953</b>	<b>53,783</b>	<b>58,614</b>	<b>58,614</b>	<b>63,444</b>	<b>68,274</b>	<b>73,105</b>	<b>73,105</b>	<b>77,935</b>	<b>82,765</b>	<b>87,596</b>	<b>87,596</b>	<b>92,426</b>	<b>97,256</b>	<b>102,087</b>	<b>102,087</b>	<b>102,087</b>

	Traditional and Online Retail Shop - Cirlet & Lines																		
	Cost Of Goods Sold, Inventory and Purchases Budget (Euros) - First Year																		
Description	Inventory %	Safety stock	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Jul	Aug	Sep	Qtr 3	Oct	Nov	Dec	Qtr 4	Year 1
Total Inventory Sales			-	-	1,196	1,196	1,544	2,123	2,162	5,829	2,226	2,226	2,226	6,677	2,226	2,226	2,226	6,677	20,378
	45%		-	-	544	544	702	965	983	2,650	1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	9,263
Plus: Ending inventory	20%	20%	109	109	140	140	193	197	202	202	202	202	202	202	202	202	202	202	202
Total inventory required			109	109	684	684	895	1,161	1,185	2,852	1,214	1,214	1,214	3,237	1,214	1,214	1,214	3,237	9,465
Less: Beginning inventory				109	109	-	140	193	197	140	202	202	202	202	202	202	202	202	-
Inventory Purchases			109	-	575	684	755	968	989	2,712	1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	9,465

	Traditional and Online Retail Shop - Cirlet & Lines																		
	Cost Of Goods Sold, Inventory and Purchases Budget (Euros) - Second Year																		
Description	Inventory %	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Jul	Aug	Sep	Qtr 3	Oct	Nov	Dec	Qtr 4	Year 2	
Total Inventory Sales		2,226	2,226	2,226	6,677	2,226	2,226	2,226	6,677	2,226	2,226	2,226	6,677	2,226	2,226	2,226	6,677	26,706	
	45%	1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	12,139	
Plus: Ending inventory	20%	202	202	202	202	202	202	202	202	202	202	202	202	202	202	-	-	-	
Total inventory required		1,214	1,214	1,214	3,237	1,214	1,214	1,214	3,237	1,214	1,214	1,214	3,237	1,214	1,214	1,012	3,035	12,139	
Less: Beginning inventory		202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202		
Inventory Purchases		1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	1,012	1,012	1,012	3,035	1,012	1,012	809	2,832	11,937	

**Appendix 5. Online shop (operating expenses, income statement, and financial budgets)**

Online Retail Shop (Likely Scenario) - Circlet & Lines															
Description	Operating Expenses Budget (Euros) - First Year								Operating Expenses Budget (Euros) - Second Year						
	Jan	Feb	Mar	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 1		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 2	
								Cost	%					Cost	%
<b>Variable Costs</b>															
Card fees <sup>1</sup>	-	-	101	101	457	533	533	1,623	13.9%	533	533	533	533	2,131	18.3%
Transaction fee (Online) <sup>2</sup>	-	-	55	55	248	290	290	882	7.6%	290	290	290	290	1,159	10.0%
<b>Total Variable Costs</b>	<b>-</b>	<b>-</b>	<b>156</b>	<b>156</b>	<b>705</b>	<b>823</b>	<b>823</b>	<b>2,505</b>	<b>21.5%</b>	<b>823</b>	<b>823</b>	<b>823</b>	<b>823</b>	<b>3,290</b>	<b>26.5%</b>
<b>Fixed Costs</b>															
Depreciation <sup>3</sup>	1.7	1.7	1.7	5.0	5.0	5.0	5.0	20	0.2%	5.0	5.0	5.0	5.0	20	0.2%
Advertising <sup>4</sup>	170	170	170	510	510	510	510	2,040	17.5%	510	510	510	510	2,040	17.5%
Bank Account fee <sup>5</sup>	5	5	5	15	15	15	15	60	0.5%	15	15	15	15	60	0.5%
Internet and communication <sup>6</sup>	33	33	33	99	99	99	99	396	3.4%	99	99	99	99	396	3.4%
E-commerce platform <sup>7</sup>	29	29	29	87	87	87	87	348	3.0%	87	87	87	87	348	3.0%
Lunch benefit (intern) <sup>8</sup>	200	200	200	600	600	600	600	2,400	20.6%	600	600	600	600	2,400	20.6%
Sundries <sup>9</sup>	100	100	100	300	300	300	300	1,200	10.3%	300	300	300	300	1,200	10.3%
Transport <sup>10</sup>	100	100	100	300	300	300	300	1,200	10.3%	300	300	300	300	1,200	10.3%
YEL Insurance <sup>11</sup>	123	123	123	369	369	369	369	1,476	12.7%	369	369	369	369	1,476	12.7%
<b>Total Fixed Costs</b>	<b>762</b>	<b>762</b>	<b>762</b>	<b>2,285</b>	<b>2,285</b>	<b>2,285</b>	<b>2,285</b>	<b>9,140</b>	<b>78.5%</b>	<b>2,285</b>	<b>2,285</b>	<b>2,285</b>	<b>2,285</b>	<b>9,140</b>	<b>73.5%</b>
<b>Total Costs</b>	<b>762</b>	<b>762</b>	<b>917</b>	<b>2,441</b>	<b>2,990</b>	<b>3,108</b>	<b>3,108</b>	<b>11,645</b>	<b>100%</b>	<b>3,108</b>	<b>3,108</b>	<b>3,108</b>	<b>3,108</b>	<b>12,430</b>	<b>100%</b>

**Online Retail Shop (Likely Scenario) - Circlet & Lines**

Description	Budgeted Income Statement (Euros) - First Year												Budgeted Income Statement (Euros) - Second Year					
	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Qtr 3	Qtr 4	Year 1		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 2	
				Total				Total	Total	Total	Margin	Total					Margin	
Revenue <sup>12</sup>	-	-	2,747	2,747	3,428	4,199	4,767	12,394	14,491	14,491	44,123	100.0%	14,491	14,491	14,491	14,491	57,964	100.0%
Less: Cost of Goods Sold <sup>13</sup>	-	-	(1,249)	(1,249)	(1,558)	(1,909)	(2,167)	(5,634)	(6,587)	(6,587)	(20,056)	45.5%	(6,587)	(6,587)	(6,587)	(6,587)	(26,347)	45.5%
<b>Gross Profit</b>	-	-	<b>1,498</b>	<b>1,498</b>	<b>1,870</b>	<b>2,291</b>	<b>2,600</b>	<b>6,760</b>	<b>7,904</b>	<b>7,904</b>	<b>24,067</b>	<b>54.5%</b>	<b>7,904</b>	<b>7,904</b>	<b>7,904</b>	<b>7,904</b>	<b>31,617</b>	<b>54.5%</b>
Less: Operating Expenses	(762)	(762)	(917)	(2,441)	(956)	(1,002)	(1,032)	(2,990)	(3,108)	(3,108)	(11,645)	26.4%	(3,108)	(3,108)	(3,108)	(3,108)	(12,430)	21.4%
<b>Operating Profit (Loss)</b>	<b>(762)</b>	<b>(762)</b>	<b>581</b>	<b>(942)</b>	<b>914</b>	<b>1,289</b>	<b>1,568</b>	<b>3,771</b>	<b>4,797</b>	<b>4,797</b>	<b>12,422</b>	<b>28.2%</b>	<b>4,797</b>	<b>4,797</b>	<b>4,797</b>	<b>4,797</b>	<b>19,186</b>	<b>33.1%</b>
Add: Interest Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less: Interest expense																		
<b>Profit before taxes</b>	<b>(762)</b>	<b>(762)</b>	<b>581</b>	<b>(942)</b>	<b>914</b>	<b>1,289</b>	<b>1,568</b>	<b>3,771</b>	<b>4,797</b>	<b>4,797</b>	<b>12,422</b>	<b>28.2%</b>	<b>4,797</b>	<b>4,797</b>	<b>4,797</b>	<b>4,797</b>	<b>19,186</b>	<b>33.1%</b>
Less Pre-paid Income tax <sup>14</sup>	(195)	(195)	(195)	(584)	(195)	(195)	(195)	(584)	(584)	(584)	(2,336)	5.3%	(1,069)	(1,069)	(1,069)	(1,069)	(4,275)	7.4%
<b>Net Profit (Loss)</b>	<b>(956)</b>	<b>(956)</b>	<b>386</b>	<b>(1,526)</b>	<b>719</b>	<b>1,094</b>	<b>1,374</b>	<b>3,187</b>	<b>4,213</b>	<b>4,213</b>	<b>10,086</b>	<b>22.9%</b>	<b>3,728</b>	<b>3,728</b>	<b>3,728</b>	<b>3,728</b>	<b>14,912</b>	<b>25.7%</b>

Description	Online Retail Shop (Likely Scenario) - Circler & Lines												
	Cash Collection and Cash Payment Budget (Euro) - First Year												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year 1
<b>Cash Collection (VAT Incl) <sup>15</sup>:</b>													
Inventory Sales Revenue	-	-	1,483	1,915	2,632	2,681	2,760	2,760	2,760	2,760	2,760	2,760	25,269
Consignment sales	-	-	1,923	2,335	2,575	3,230	3,230	3,230	3,230	3,230	3,230	3,230	29,443
<b>Total cash collections from sales</b>	<b>-</b>	<b>-</b>	<b>3,406</b>	<b>4,250</b>	<b>5,207</b>	<b>5,911</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>54,712</b>
<b>Cash Payments (VAT Incl) <sup>16</sup>:</b>													
Inventory Purchases <sup>17</sup>	135	-	713	936	1,201	1,226	1,254	1,254	1,254	1,254	1,254	1,254	11,737
Supplier Consignment <sup>18</sup>	-	-	-	874	1,061	1,171	1,468	1,468	1,468	1,468	1,468	1,468	11,915
Capital expenditure	124	-	-	-	-	-	-	-	-	-	-	-	124
Operating expenses													
<u>Variable Costs <sup>19</sup></u>													
Card fees	-	-	101	126	156	175	178	178	178	178	178	178	1,623
E-commerce transaction fee	-	-	55	69	84	95	97	97	97	97	97	97	882
<u>Fixed Costs</u>													
Advertising (VAT incl) <sup>20</sup>		211	211	211	211	211	211	211	211	211	211	211	2,319
Bank Account fee	5	5	5	5	5	5	5	5	5	5	5	5	60
Internet and communication (VAT incl) <sup>20</sup>		41	41	41	41	41	41	41	41	41	41	41	450
E-commerce platform (VAT incl) <sup>20</sup>		36	36	36	36	36	36	36	36	36	36	36	396
Lunch benefit (intern)	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Sundries	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Transport (VAT incl)	110	110	110	110	110	110	110	110	110	110	110	110	1,320
YEL insurance	123	123	123	123	123	123	123	123	123	123	123	123	1,476
Pre-paid income Tax <sup>21</sup>		779		389		389		389		389		712	3,049
Cash payments for operating expenses	538	1,604	981	1,409	1,066	1,485	1,100	1,489	1,100	1,489	1,100	1,812	15,174
<b>Total cash payments</b>	<b>797</b>	<b>1,604</b>	<b>1,695</b>	<b>3,219</b>	<b>3,328</b>	<b>3,882</b>	<b>3,822</b>	<b>4,212</b>	<b>3,822</b>	<b>4,212</b>	<b>3,822</b>	<b>4,535</b>	<b>38,950</b>

Description	Online Retail Shop (Likely Scenario) - Circlet & Lines												
	Cash Collection and Cash payment Budget (Euros) - Second Year												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year 2
<b>Cash Collection (VAT Incl) <sup>15</sup>:</b>													
Inventory Sales Revenue	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	33,116
Consignment sales	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	38,759
<b>Total cash collections from sales</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>71,875</b>
<b>Cash Payments (VAT Incl) <sup>16</sup>:</b>													
Inventory Purchases <sup>17</sup>	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,004	14,802
Supplier Consignment <sup>18</sup>	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	17,618
Capital expenditure	-	-	-	-	-	-	-	-	-	-	-	-	-
Operating expenses													
<u>Variable Costs <sup>19</sup></u>													
Card fees	178	178	178	178	178	178	178	178	178	178	178	178	2,131
E-commerce transaction fee	97	97	97	97	97	97	97	97	97	97	97	97	1,159
<u>Fixed Costs</u>													
Advertising (VAT incl) <sup>20</sup>	211	211	211	211	211	211	211	211	211	211	211	211	2,530
Bank Account fee	5	5	5	5	5	5	5	5	5	5	5	5	60
Internet and communication (VAT incl) <sup>20</sup>	41	41	41	41	41	41	41	41	41	41	41	41	491
E-commerce platform (VAT incl) <sup>20</sup>	36	36	36	36	36	36	36	36	36	36	36	36	432
Lunch benefit (intern)	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Sundries	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Transport (VAT incl)	110	110	110	110	110	110	110	110	110	110	110	110	1,320
YEL insurance	123	123	123	123	123	123	123	123	123	123	123	123	1,476
Pre-paid income Tax <sup>21</sup>		712		712		712		712		712			3,562
Cash payments for operating expenses	1,100	1,812	1,100	1,812	1,100	1,812	1,100	1,812	1,100	1,812	1,100	1,100	16,761
<b>Total cash payments</b>	<b>3,822</b>	<b>4,535</b>	<b>3,822</b>	<b>4,535</b>	<b>3,822</b>	<b>4,535</b>	<b>3,822</b>	<b>4,535</b>	<b>3,822</b>	<b>4,535</b>	<b>3,822</b>	<b>3,572</b>	<b>49,180</b>

Online Retail Shop (Likely Scenario) - Circllet & Lines												
Combined Cash Budget (Euro) - First Year												
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	1,500	703	(901)	870	1,967	3,391	5,014	6,676	7,840	9,440	10,651	12,252
Add cash collection	-	-	3,406	4,250	5,207	5,911	5,990	5,990	5,990	5,990	5,990	5,990
VAT returns	-	-	60	66	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>1,500</b>	<b>703</b>	<b>2,565</b>	<b>5,186</b>	<b>7,174</b>	<b>9,302</b>	<b>11,003</b>	<b>12,666</b>	<b>13,829</b>	<b>15,430</b>	<b>16,641</b>	<b>18,242</b>
Less cash payments:												
Total Cash payments	797	1,604	1,695	3,219	3,328	3,882	3,822	4,212	3,822	4,212	3,822	4,535
VAT Payable	-	-	-	-	456	407	504	615	567	567	567	567
<b>Total disbursement</b>	<b>797</b>	<b>1,604</b>	<b>1,695</b>	<b>3,219</b>	<b>3,783</b>	<b>4,288</b>	<b>4,327</b>	<b>4,826</b>	<b>4,389</b>	<b>4,778</b>	<b>4,389</b>	<b>5,101</b>
<b>Ending Cash balance</b>	<b>703</b>	<b>(901)</b>	<b>870</b>	<b>1,967</b>	<b>3,391</b>	<b>5,014</b>	<b>6,676</b>	<b>7,840</b>	<b>9,440</b>	<b>10,651</b>	<b>12,252</b>	<b>13,140</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>703</b>	<b>(901)</b>	<b>870</b>	<b>1,967</b>	<b>3,391</b>	<b>5,014</b>	<b>6,676</b>	<b>7,840</b>	<b>9,440</b>	<b>10,651</b>	<b>12,252</b>	<b>13,140</b>

Online Retail Shop (Likely Scenario) - Circllet & Lines													Variance	
Combined Cash Budget (Euro) - Second Year													between Dec	
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(2nd-1st Year)	
													Amount	%
Cash Balance beginning <sup>22</sup>	13,140	14,741	15,629	17,229	18,117	19,718	20,606	22,206	23,095	24,695	25,583	27,184	14,932	122%
Add cash collection	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990		
VAT returns	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Total cash available</b>	<b>19,130</b>	<b>20,730</b>	<b>21,618</b>	<b>23,219</b>	<b>24,107</b>	<b>25,707</b>	<b>26,596</b>	<b>28,196</b>	<b>29,084</b>	<b>30,685</b>	<b>31,573</b>	<b>33,173</b>	<b>14,932</b>	<b>82%</b>
Less cash payments:														
Total Cash payments	3,822	4,535	3,822	4,535	3,822	4,535	3,822	4,535	3,822	4,535	3,822	3,572		
VAT Payable	567	567	567	567	567	567	567	567	567	567	567	567		
<b>Total disbursement</b>	<b>4,389</b>	<b>5,101</b>	<b>4,389</b>	<b>5,101</b>	<b>4,389</b>	<b>5,101</b>	<b>4,389</b>	<b>5,101</b>	<b>4,389</b>	<b>5,101</b>	<b>4,389</b>	<b>4,138</b>		
<b>Ending Cash balance</b>	<b>14,741</b>	<b>15,629</b>	<b>17,229</b>	<b>18,117</b>	<b>19,718</b>	<b>20,606</b>	<b>22,206</b>	<b>23,095</b>	<b>24,695</b>	<b>25,583</b>	<b>27,184</b>	<b>29,035</b>	<b>15,895</b>	<b>121%</b>
Financing <sup>23</sup> :														
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-		
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-		
Repayment	-	-	-	-	-	-	-	-	-	-	-	-		
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Total ending cash balance</b>	<b>14,741</b>	<b>15,629</b>	<b>17,229</b>	<b>18,117</b>	<b>19,718</b>	<b>20,606</b>	<b>22,206</b>	<b>23,095</b>	<b>24,695</b>	<b>25,583</b>	<b>27,184</b>	<b>29,035</b>	<b>15,895</b>	<b>121%</b>

Online Retail Shop (Likely Scenario) - Circlet & Lines													
Budgeted Balance Sheet (Euro) - First Year													
Description	01-Jan	31-Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>ASSETS</b>													
<b>Current Assets</b>													
Cash	1,500	703	(901)	870	1,967	3,391	5,014	6,676	7,840	9,440	10,651	12,252	13,140
Inventory	-	109	109	140	193	197	202	202	202	202	202	202	202
VAT receivable <sup>24</sup> :	-	60	126	66	-	-	-	-	-	-	-	-	-
Prepaid income tax			389	195	389	195	389	195	389	195	389	195	712
<b>Non Current Assets</b>													
Fixed Asset	-	100	100	100	100	100	100	100	100	100	100	100	100
(-) Accumulated depreciation	-	(2)	(3)	(5)	(7)	(8)	(10)	(12)	(13)	(15)	(17)	(18)	(20)
<b>TOTAL ASSETS</b>	<b>1,500</b>	<b>970</b>	<b>(181)</b>	<b>1,366</b>	<b>2,643</b>	<b>3,874</b>	<b>5,695</b>	<b>7,162</b>	<b>8,518</b>	<b>9,922</b>	<b>11,326</b>	<b>12,731</b>	<b>14,135</b>
<b>LIABILITY</b>													
<b>Current Liability</b>													
VAT payable <sup>24</sup> :	-	-	-	456	862	911	1,119	1,181	1,133	1,133	1,133	1,133	1,133
Short term loans	-												
Interest payable	-												
Accounts payable		232	232	937	1,088	1,176	1,416	1,416	1,416	1,416	1,416	1,416	1,416
Accrued income tax		195											
<b>Non Current Liability</b>													
Long term loans	-												
<b>EQUITY</b>													
Capital <sup>22</sup>	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Retained earnings	-	(956)	(1,913)	(1,526)	(807)	287	1,660	3,065	4,469	5,873	7,277	8,681	10,086
<b>TOTAL EQUITY AND LIABILITY</b>	<b>1,500</b>	<b>970</b>	<b>(181)</b>	<b>1,366</b>	<b>2,643</b>	<b>3,874</b>	<b>5,695</b>	<b>7,162</b>	<b>8,518</b>	<b>9,922</b>	<b>11,326</b>	<b>12,731</b>	<b>14,135</b>



Description	Online Retail Shop (Likely Scenario) - Circler & Lines												Variance between Dec (2nd-1st Year)	
	Budgeted Balance Sheet (Euro) - Second Year													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AMOUNT	%
<b>ASSETS</b>														
<b>Current Assets</b>														
Cash	14,741	15,629	17,229	18,117	19,718	20,606	22,206	23,095	24,695	25,583	27,184	29,035	15,895	121%
Inventory	202	202	202	202	202	202	202	202	202	202	202		(202)	
VAT receivable <sup>24</sup> :	-	-	-	-	-	-	-	-	-	-	-	-	-	
Prepaid income tax	356	712	356	712	356	712	356	712	356	712	356		(712)	
<b>Non Current Assets</b>														
Fixed Asset	100	100	100	100	100	100	100	100	100	100	100	100	-	
(-) Accumulated depreciation	(22)	(23)	(25)	(27)	(28)	(30)	(32)	(33)	(35)	(37)	(38)	(40)	(20)	
<b>TOTAL ASSETS</b>	<b>15,377</b>	<b>16,620</b>	<b>17,863</b>	<b>19,105</b>	<b>20,348</b>	<b>21,591</b>	<b>22,833</b>	<b>24,076</b>	<b>25,319</b>	<b>26,561</b>	<b>27,804</b>	<b>29,095</b>	<b>14,960</b>	<b>106%</b>
<b>LIABILITY</b>														
<b>Current Liability</b>														
VAT payable <sup>24</sup> :	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,182	49	
Short term loans													-	
Interest payable													-	
Accounts payable	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	1,416	-	
Accrued income tax													-	
<b>Non Current Liability</b>														
Long term loans													-	
<b>EQUITY</b>														
Capital <sup>22</sup>	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-	
Retained earnings	11,328	12,571	13,813	15,056	16,299	17,541	18,784	20,027	21,269	22,512	23,755	24,997	14,912	148%
<b>TOTAL EQUITY AND LIABILITY</b>	<b>15,377</b>	<b>16,620</b>	<b>17,863</b>	<b>19,105</b>	<b>20,348</b>	<b>21,591</b>	<b>22,833</b>	<b>24,076</b>	<b>25,319</b>	<b>26,561</b>	<b>27,804</b>	<b>29,095</b>	<b>14,960</b>	<b>106%</b>

## Appendix 6. Income tax calculations

### Tax rate calculation using Tax calculator 2016

Percent of Basis for capital portion	Earned income (employment)	1 <sup>st</sup> Year			2 <sup>nd</sup> Year		
		Earned income portion (business)	Earned income tax (Tax Calculator)	Progressive Tax rate (*)	Earned income portion (business)	Earned income tax (Tax Calculator)	Progressive Tax rate (*)
		A	B	C	D	E	(E/(A+D)) * 100
<b>Pessimistic Scenario</b>							
20%	21 240	5 163	3 656	13.85%	10 265	5 507	17.48%
10%	21 240	5 996	3 883	14.26%	11 098	5 825	18.01%
0%	21 240	6 829	4 195	14.94%	11 931	6 143	18.52%
<b>Likely Scenario</b>							
20%	21 240	9 637	5 267	17.06%	16 402	7 909	21.01%
10%	21 240	11 030	5 799	17.97%	17 794	8 461	21.68%
0%	21 240	12 422	6 331	18.81%	19,186	9 013	22.29%
<b>Optimistic Scenario</b>							
20%	21 240	11 870	6 120	18.48%	19 517	9 144	22.44%
10%	21 240	13 541	6 775	19.48%	21 188	98 806	23.11%
0%	21 240	15 212	7 437	20.40%	22 859	10 503	24.82%

(\*) Rate applied in table below to calculate income tax for the business.

Income tax calculation (estimate)	Pessimistic Scenario		Likely Scenario		Optimistic Scenario	
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	1 <sup>st</sup> Year	2 <sup>nd</sup> Year
Wages paid to employees	0.00	0.00	0.00	0.00	0.00	0.00
Estimated Gross Salary from part time employment	21 240	21 240	21 240	21 240	21 240	21 240
Taxable income	6 829	11 931	12 422	19 186	15 212	22 859
Total Assets (**)	10 436	10 436	16 471	16 471	19 584	19 584
(-) Total Liabilities (**)	(2 107)	(2 107)	(2 549)	(2 549)	(2 871)	(2 871)
Net asset	8 329	8 329	13 922	13 922	16 712	16 712
(+) 30% of yearly wages	0.00	0.00	0.00	0.00	0.00	0.00
Basis for capital income portion	8 329	8 329	13 922	13 922	16 712	16 712
<b>First method: 20% as Capital income portion (20% of basis for capital income portion)</b>						
Capital income portion (20% x basis for capital income portion)	1 666	1 666	2 784	2 784	3 342	3 342
Earned income portion (taxable income - capital income portion)	5 163	10 265	9 637	16 402	11 870	19 517
Progressive rate (From tax rate calculation table above)	13.85%	17.48%	17.06%	21.01%	18.48%	22.44%
Capital Income tax (30% x capital income portion)	500	500	835	835	1 003	1 003
Earned income tax (progressive tax rate x earned income portion)	715	715	1 644	3 446	2 194	4 379
<b>Total Tax (capital income tax + earned income tax)</b>	<b>1 215</b>	<b>2 294</b>	<b>2 479</b>	<b>4 282</b>	<b>3 197</b>	<b>5 381 (***)</b>

Income tax calculation (estimate)	Pessimistic Scenario		Likely Scenario		Optimistic Scenario	
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	1 <sup>st</sup> Year	2 <sup>nd</sup> Year
<b>Second method: 10% as Capital income portion (10% of basis for capital income portion)</b>						
Capital income portion (10% x basis for capital income portion)	833	833	1 392	1 392	1 671	1 671
Earned income portion (taxable income - capital income portion)	5 996	11 098	11 030	17 794	13 541	21 188
Progressive rate (from tax rate calculation table above)	14.26%	18.01%	17.97%	21.68%	19.48%	23.11%
Capital Income tax (30% x capital income portion)	250	250	418	418	501	501
Earned income tax (progressive tax rate x earned income portion)	855	1 999	1 982	3 857	2 638	4 897
<b>Total Tax</b> (capital income tax + earned income tax)	<b>1 105</b>	<b>2 249</b>	<b>2 400</b>	<b>4 275 (***)</b>	<b>3 139</b>	<b>5 399</b>
<b>Third method: Entire income portion as earned income</b>						
Progressive rate (From tax rate calculation table above)	14.94%	18.52%	18.81%	22.29%	20.40%	23.82%
Earned income portion	6 829	11 931	12 422	19 186	15 212	22 859
<b>Total Tax</b>	<b>1 021 (***)</b>	<b>2 209 (***)</b>	<b>2 336 (***)</b>	<b>4 277</b>	<b>3 104 (***)</b>	<b>5 445</b>

(\*\*) Assets and liabilities from balance sheet prior to inclusion of prepaid income tax resulting from tax calculations

(\*\*\*) Relatively favourable income tax value, compared to others derived by two of the three methods in this table. Favourable tax values have been applied to the budgeting process

## Appendix 7. Traditional retail shop (operating expenses, income statement, and financial budgets)

Traditional Retail Shop - Circler & Lines																
Description	Operating Expenses Budget (Euros) - First Year								Operating Expenses Budget (Euros) - Second Year							
	Jan	Feb	Mar	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 1		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 2		
								Cost	%					Cost	%	
<b>Variable Costs</b>																
Card fees <sup>25</sup>	-	-	7	7	34	39	39	120	0.3%	39	39	39	39	157.5	0.4%	
<b>Total Variable Costs</b>	-	-	7	7	34	39	39	120	0.3%	39	39	39	39	158	0.4%	
<b>Fixed Costs</b>																
Depreciation <sup>3</sup>	31.5	31.5	31.5	94.6	94.6	94.6	94.6	379	1.0%	94.6	94.6	94.6	94.6	379	1.0%	
Advertising <sup>4</sup>	120	120	120	360	360	360	360	1,440	3.8%	360	360	360	360	1,440	3.8%	
Bank Account fee <sup>5</sup>	5	5	5	15	15	15	15	60	0.2%	15	15	15	15	60	0.2%	
Internet and communication <sup>6</sup>	33	33	33	99	99	99	99	396	1.1%	99	99	99	99	396	1.1%	
Web hosting <sup>26</sup>	10	10	10	30	30	30	30	120	0.3%	30	30	30	30	120	0.3%	
Wages <sup>27</sup>	960	960	960	2,880	2,880	2,880	2,880	11,520	30.6%	2,880	2,880	2,880	2,880	11,520	30.6%	
Lunch benefit (intern) <sup>8</sup>	200	200	200	600	600	600	600	2,400	6.4%	600	600	600	600	2,400	6.4%	
Rent and utilities	1,100	1,100	1,100	3,300	3,300	3,300	3,300	13,200	35.0%	3,300	3,300	3,300	3,300	13,200	35.0%	
Point Of Sales System (POS) <sup>28</sup>	130	130	130	390	390	390	390	1,562	4.1%	390	390	390	390	1,562	4.1%	
Sundries <sup>9</sup>	100	100	100	300	300	300	300	1,200	3.2%	300	300	300	300	1,200	3.2%	
Transport <sup>10</sup>	100	100	100	300	300	300	300	1,200	3.2%	300	300	300	300	1,200	3.2%	
TyEL Insurance and contributoins <sup>27</sup>	216	216	216	649	649	649	649	2,594	6.9%	649	649	649	649	2,594	6.9%	
YEL Insurance <sup>11</sup>	123	123	123	369	369	369	369	1,476	3.9%	369	369	369	369	1,476	3.9%	
<b>Total Fixed Costs</b>	<b>3,129</b>	<b>3,129</b>	<b>3,129</b>	<b>9,387</b>	<b>9,387</b>	<b>9,387</b>	<b>9,387</b>	<b>37,546</b>	<b>99.7%</b>	<b>9,387</b>	<b>9,387</b>	<b>9,387</b>	<b>9,387</b>	<b>37,546</b>	<b>99.6%</b>	
<b>Total Costs</b>	<b>3,129</b>	<b>3,129</b>	<b>3,136</b>	<b>9,394</b>	<b>9,421</b>	<b>9,426</b>	<b>9,426</b>	<b>37,666</b>	<b>100%</b>	<b>9,426</b>	<b>9,426</b>	<b>9,426</b>	<b>9,426</b>	<b>37,704</b>	<b>100%</b>	

Traditional Retail Shop - Circlet & Lines																			
Description	Budgeted Income Statement (Euros) - First Year												Budgeted Income Statement (Euros) - Second Year						
	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Qtr 3	Qtr 4	Year 1		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 2		
				Total				Total	Total	Total	Margin	Total					Margin		
Revenue <sup>12</sup>	-	-	2,747	2,747	3,428	4,199	4,767	12,394	14,491	14,491	44,123	100.0%	14,491	14,491	14,491	14,491	57,964	100.0%	
Less: Cost of Goods Sold <sup>13</sup>	-	-	(1,249)	(1,249)	(1,558)	(1,909)	(2,167)	(5,634)	(6,587)	(6,587)	(20,056)	45.5%	(6,587)	(6,587)	(6,587)	(6,587)	(26,347)	45.5%	
Gross Profit	-	-	1,498	1,498	1,870	2,291	2,600	6,760	7,904	7,904	24,067	54.5%	7,904	7,904	7,904	7,904	31,617	54.5%	
Less: Operating Expenses	(3,129)	(3,129)	(3,136)	(9,394)	(3,138)	(3,141)	(3,142)	(9,421)	(9,426)	(9,426)	(37,666)	85.4%	(9,426)	(9,426)	(9,426)	(9,426)	(37,704)	65.0%	
Operating Profit (Loss)	(3,129)	(3,129)	(1,638)	(7,896)	(1,269)	(850)	(542)	(2,660)	(1,522)	(1,522)	(13,600)	-30.8%	(1,522)	(1,522)	(1,522)	(1,522)	(6,087)	-10.5%	
Add: Interest Income																			
Less: Interest expense																			
Profit before taxes	(3,129)	(3,129)	(1,638)	(7,896)	(1,269)	(850)	(542)	(2,660)	(1,522)	(1,522)	(13,600)	-30.8%	(1,522)	(1,522)	(1,522)	(1,522)	(6,087)	-10.5%	
Less Pre-paid Income tax <sup>14</sup>																			
Net Profit (Loss)	(3,129)	(3,129)	(1,638)	(7,896)	(1,269)	(850)	(542)	(2,660)	(1,522)	(1,522)	(13,600)	-30.8%	(1,522)	(1,522)	(1,522)	(1,522)	(6,087)	-10.5%	

Description	Traditional Retail Shop - Circlet & Lines												
	Cash Collection and Cash Payment Budget (Euro) - First Year												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year 1
<b>Cash Collection (VAT Incl) <sup>15</sup>:</b>													
Inventory Sales Revenue	-	-	1,483	1,915	2,632	2,681	2,760	2,760	2,760	2,760	2,760	2,760	25,269
Consignment sales	-	-	1,923	2,335	2,575	3,230	3,230	3,230	3,230	3,230	3,230	3,230	29,443
<b>Total cash collections from sales</b>	-	-	<b>3,406</b>	<b>4,250</b>	<b>5,207</b>	<b>5,911</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>54,712</b>
<b>Cash Payments (VAT Incl) <sup>16</sup>:</b>													
Inventory Purchases <sup>17</sup>	135	-	713	936	1,201	1,226	1,254	1,254	1,254	1,254	1,254	1,254	11,737
Supplier Consignment <sup>18</sup>	-	-	-	874	1,061	1,171	1,468	1,468	1,468	1,468	1,468	1,468	11,915
Capital expenditure	3,212	-	-	-	-	-	-	-	-	-	-	-	3,212
Operating expenses													
<u>Variable Costs <sup>19</sup></u>													
Card fees	-	-	7	9	12	13	13	13	13	13	13	13	120
<u>Fixed Costs</u>													
Advertising (VAT incl) <sup>20</sup>	-	149	149	149	149	149	149	149	149	149	149	149	1,637
Bank Account fee	5	5	5	5	5	5	5	5	5	5	5	5	60
Internet and communication (VAT incl) <sup>20</sup>	-	41	41	41	41	41	41	41	41	41	41	41	450
Web hosting (VAT incl) <sup>20</sup>	-	12	12	12	12	12	12	12	12	12	12	12	136
Wages (net)	789	789	789	789	789	789	789	789	789	789	789	789	9,464
Lunch benefit (intern)	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Rent and utilities	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	13,200
Point Of Sales System (POS)	161	161	161	161	161	161	161	161	161	161	161	161	1,936
Sundries	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Transport (VAT incl)	110	110	110	110	110	110	110	110	110	110	110	110	1,320
TyEL insurance and contributions	-	388	388	388	388	388	388	388	388	388	388	388	4,263
YEL insurance	123	123	123	123	123	123	123	123	123	123	123	123	1,476
Pre-paid income Tax <sup>21</sup>													
Cash payments for operating expenses	2,588	3,178	3,185	3,187	3,190	3,190	3,191	3,191	3,191	3,191	3,191	3,191	37,662
<b>Total cash payments</b>	<b>5,934</b>	<b>3,178</b>	<b>3,898</b>	<b>4,997</b>	<b>5,452</b>	<b>5,587</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>64,526</b>

Description	Traditional Retail Shop - Circlet & Lines												
	Cash Collection and Cash payment Budget (Euros) - Second Year												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year 2
<b>Cash Collection (VAT Incl) <sup>15</sup>:</b>													
Inventory Sales Revenue	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	2,760	33,116
Consignment sales	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	3,230	38,759
<b>Total cash collections from sales</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>5,990</b>	<b>71,875</b>
<b>Cash Payments (VAT Incl) <sup>16</sup>:</b>													
Inventory Purchases <sup>17</sup>	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,004	14,802
Supplier Consignment <sup>18</sup>	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	17,618
Capital expenditure	-	-	-	-	-	-	-	-	-	-	-	-	-
Operating expenses													
<u>Variable Costs <sup>19</sup></u>													
Card fees	13	13	13	13	13	13	13	13	13	13	13	13	158
<u>Fixed Costs</u>													
Advertising (VAT incl) <sup>20</sup>	149	149	149	149	149	149	149	149	149	149	149	149	1,786
Bank Account fee	5	5	5	5	5	5	5	5	5	5	5	5	60
Internet and communication (VAT incl) <sup>20</sup>	41	41	41	41	41	41	41	41	41	41	41	41	491
Web hosting (VAT incl) <sup>20</sup>	12	12	12	12	12	12	12	12	12	12	12	12	149
Wages (net)	789	789	789	789	789	789	789	789	789	789	789	789	9,464
Lunch benefit (intern)	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Rent and utilities	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	13,200
Point Of Sales System (POS)	161	161	161	161	161	161	161	161	161	161	161	161	1,936
Sundries	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Transport (VAT incl)	110	110	110	110	110	110	110	110	110	110	110	110	1,320
TyEL insurance and contributions	388	388	388	388	388	388	388	388	388	388	388	388	4,651
YEL insurance	123	123	123	123	123	123	123	123	123	123	123	123	1,476
Pre-paid income Tax <sup>21</sup>													
<b>Cash payments for operating expenses</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>3,191</b>	<b>38,289</b>
<b>Total cash payments</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,913</b>	<b>5,662</b>	<b>70,709</b>



Description	Traditional Retail Shop - Circlet & Lines Combined Cash Budget (Euro) - First Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	1,500	(4,434)	(7,612)	(7,415)	(8,082)	(8,767)	(8,835)	(9,248)	(9,772)	(10,248)	(10,723)	(11,199)
Add cash collection	-	-	3,406	4,250	5,207	5,911	5,990	5,990	5,990	5,990	5,990	5,990
VAT returns	-	-	689	80	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>1,500</b>	<b>(4,434)</b>	<b>(3,517)</b>	<b>(3,085)</b>	<b>(2,874)</b>	<b>(2,856)</b>	<b>(2,845)</b>	<b>(3,259)</b>	<b>(3,782)</b>	<b>(4,258)</b>	<b>(4,734)</b>	<b>(5,209)</b>
Less cash payments:												
Total Cash payments	5,934	3,178	3,898	4,997	5,452	5,587	5,913	5,913	5,913	5,913	5,913	5,913
VAT Payable	-	-	-	-	441	392	490	600	552	552	552	552
<b>Total disbursement</b>	<b>5,934</b>	<b>3,178</b>	<b>3,898</b>	<b>4,997</b>	<b>5,893</b>	<b>5,979</b>	<b>6,403</b>	<b>6,513</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>
<b>Ending Cash balance</b>	<b>(4,434)</b>	<b>(7,612)</b>	<b>(7,415)</b>	<b>(8,082)</b>	<b>(8,767)</b>	<b>(8,835)</b>	<b>(9,248)</b>	<b>(9,772)</b>	<b>(10,248)</b>	<b>(10,723)</b>	<b>(11,199)</b>	<b>(11,675)</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>(4,434)</b>	<b>(7,612)</b>	<b>(7,415)</b>	<b>(8,082)</b>	<b>(8,767)</b>	<b>(8,835)</b>	<b>(9,248)</b>	<b>(9,772)</b>	<b>(10,248)</b>	<b>(10,723)</b>	<b>(11,199)</b>	<b>(11,675)</b>

Description	Traditional Retail Shop - Circlet & Lines Combined Cash Budget (Euro) - Second Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	(11,675)	(12,150)	(12,626)	(13,102)	(13,578)	(14,053)	(14,529)	(15,005)	(15,481)	(15,956)	(16,432)	(16,908)
Add cash collection	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990	5,990
VAT returns	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>(5,685)</b>	<b>(6,161)</b>	<b>(6,637)</b>	<b>(7,112)</b>	<b>(7,588)</b>	<b>(8,064)</b>	<b>(8,539)</b>	<b>(9,015)</b>	<b>(9,491)</b>	<b>(9,967)</b>	<b>(10,442)</b>	<b>(10,918)</b>
Less cash payments:												
Total Cash payments	5,913	5,913	5,913	5,913	5,913	5,913	5,913	5,913	5,913	5,913	5,913	5,662
VAT Payable	552	552	552	552	552	552	552	552	552	552	552	552
<b>Total disbursement</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,465</b>	<b>6,214</b>
<b>Ending Cash balance</b>	<b>(12,150)</b>	<b>(12,626)</b>	<b>(13,102)</b>	<b>(13,578)</b>	<b>(14,053)</b>	<b>(14,529)</b>	<b>(15,005)</b>	<b>(15,481)</b>	<b>(15,956)</b>	<b>(16,432)</b>	<b>(16,908)</b>	<b>(17,133)</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>(12,150)</b>	<b>(12,626)</b>	<b>(13,102)</b>	<b>(13,578)</b>	<b>(14,053)</b>	<b>(14,529)</b>	<b>(15,005)</b>	<b>(15,481)</b>	<b>(15,956)</b>	<b>(16,432)</b>	<b>(16,908)</b>	<b>(17,133)</b>

Description	Traditional Retail Shop - Circlet & Lines												
	Budgeted Balance Sheet (Euro) - First Year												
	01-Jan	31-Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>ASSETS</b>													
<b>Current Assets</b>													
Cash	1,500	(4,434)	(7,612)	(7,415)	(8,082)	(8,767)	(8,835)	(9,248)	(9,772)	(10,248)	(10,723)	(11,199)	(11,675)
Inventory	-	109	109	140	193	197	202	202	202	202	202	202	202
VAT receivable <sup>24</sup> :	-	689	769	80	-	-	-	-	-	-	-	-	-
Prepaid income tax			-	-	-	-	-	-	-	-	-	-	-
<b>Non Current Assets</b>													
Fixed Asset	-	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590
(-) Accumulated depreciation	-	(32)	(63)	(95)	(126)	(158)	(189)	(221)	(252)	(284)	(315)	(347)	(379)
<b>TOTAL ASSETS</b>	<b>1,500</b>	<b>(1,078)</b>	<b>(4,207)</b>	<b>(4,699)</b>	<b>(5,425)</b>	<b>(6,138)</b>	<b>(6,232)</b>	<b>(6,677)</b>	<b>(7,232)</b>	<b>(7,739)</b>	<b>(8,246)</b>	<b>(8,754)</b>	<b>(9,261)</b>
<b>LIABILITY</b>													
<b>Current Liability</b>													
VAT payable <sup>24</sup> :	-	-	-	441	833	882	1,090	1,152	1,104	1,104	1,104	1,104	1,104
Short term loans	-												
Interest payable	-												
Accounts payable		163	163	868	1,019	1,107	1,347	1,347	1,347	1,347	1,347	1,347	1,347
Accrued TyEL		388	388	388	388	388	388	388	388	388	388	388	388
<b>Non Current Liability</b>													
Long term loans	-												
<b>EQUITY</b>													
Capital <sup>22</sup>	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Retained earnings	-	(3,129)	(6,258)	(7,896)	(9,164)	(10,014)	(10,556)	(11,063)	(11,570)	(12,078)	(12,585)	(13,092)	(13,600)
<b>TOTAL EQUITY AND LIABILITY</b>	<b>1,500</b>	<b>(1,078)</b>	<b>(4,207)</b>	<b>(4,699)</b>	<b>(5,425)</b>	<b>(6,138)</b>	<b>(6,232)</b>	<b>(6,677)</b>	<b>(7,232)</b>	<b>(7,739)</b>	<b>(8,246)</b>	<b>(8,754)</b>	<b>(9,261)</b>

Description	Traditional Retail Shop - Circlet & Lines											
	Budgeted Balance Sheet (Euro) - Second Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>ASSETS</b>												
<b>Current Assets</b>												
Cash	(12,150)	(12,626)	(13,102)	(13,578)	(14,053)	(14,529)	(15,005)	(15,481)	(15,956)	(16,432)	(16,908)	(17,133)
Inventory	202	202	202	202	202	202	202	202	202	202	202	-
VAT receivable <sup>24</sup> :	-	-	-	-	-	-	-	-	-	-	-	-
Prepaid income tax	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non Current Assets</b>												
Fixed Asset	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590	2,590
(-) Accumulated depreciation	(410)	(442)	(473)	(505)	(536)	(568)	(599)	(631)	(663)	(694)	(726)	(757)
<b>TOTAL ASSETS</b>	<b>(9,768)</b>	<b>(10,276)</b>	<b>(10,783)</b>	<b>(11,290)</b>	<b>(11,797)</b>	<b>(12,305)</b>	<b>(12,812)</b>	<b>(13,319)</b>	<b>(13,826)</b>	<b>(14,334)</b>	<b>(14,841)</b>	<b>(15,300)</b>
<b>LIABILITY</b>												
<b>Current Liability</b>												
VAT payable <sup>24</sup> :	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,153
Short term loans												
Interest payable												
Accounts payable	1,347	1,347	1,347	1,347	1,347	1,347	1,347	1,347	1,347	1,347	1,347	1,347
Accrued TyEL	388	388	388	388	388	388	388	388	388	388	388	388
<b>Non Current Liability</b>												
Long term loans												
<b>EQUITY</b>												
Capital <sup>22</sup>	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Retained earnings	(14,107)	(14,614)	(15,121)	(15,629)	(16,136)	(16,643)	(17,150)	(17,658)	(18,165)	(18,672)	(19,179)	(19,687)
<b>TOTAL EQUITY AND LIABILITY</b>	<b>(9,768)</b>	<b>(10,276)</b>	<b>(10,783)</b>	<b>(11,290)</b>	<b>(11,797)</b>	<b>(12,305)</b>	<b>(12,812)</b>	<b>(13,319)</b>	<b>(13,826)</b>	<b>(14,334)</b>	<b>(14,841)</b>	<b>(15,300)</b>

## Appendix 8. Budget Notes

Note Number	Explanation
1	Variable costs are composed of online transactional costs (€ 0.3 per transaction + 2.9 percent of transactional value (for e-commerce gateway)). The online retail shop (web-store) will be built and hosted in Shopify
2	Additional 2% of transaction value will be charged by the e-commerce platform.
3	The useful life of electronic assets is assumed to be seven years (fridge) and five years (printer and others); for the remaining assets such as furniture, fixtures, and fittings, the useful life is also assumed to be seven years.
4	Advertising expenses were calculated as a percentage of yearly sales (3 percent and 4 percent for traditional and online retail shops respectively). Initially, the marketing strategy will make significant use of social media, with reliance on other methods such as word of mouth, and cultural markets.
5	Additional account will be opened under the business owner's bank account profile, using their existing web banking facilities.
6	50 percent of the costs for internet and communication (mobile and internet cost are projected to be € 26 and € 40 per month respectively) will be allocated to business.
7	Fixed cost portion for the e-commerce platform in addition to fees detailed above (note 2).
8	Benefits refer to small amount of money paid to intern(s) as incentive (lunch money), since the business will not be placing interns on a salary. This is budgeted at € 200 per month (€ 10 per day, for five days in a week).
9	Packaging material costs were factored into the sundries amount since they can be purchased online, in bulk, and at a relatively low cost.
10	Transport costs have been set aside for commuting within Helsinki region (50 percent of ticket costs approximately € 50). Remaining € 50 is provision for travel to Baltic countries (e.g. Estonia) to collect merchandize for sale. In the future, merchandize freight costs will be factored instead of physical travel, when the business owner can make merchandize selection online.
11	YEL is a statutory self-employment pension insurance. For purposes of this budget, YEL has been calculated at close to 'minimum YEL income' of € 8 000.
12	Sales budget revenue consists of sales revenue from consignment goods and business inventory.
13	Deducts inventory costs and consignment price as per consignor's (cost price)
14	Income tax was calculated using estimated progressive tax rates of 18.81% and 21.68% for first and second year respectively, derived from calculations for likely scenario in appendix 6. Criterion of least tax burden was used in selecting income tax rates for the budget. The business owner projects the income from part time work to be € 21 2400 per year (used in the progressive tax rate calculations as per appendix 6).
15	Primary target consumers are located within Finland. Therefore, for purposes of this budget, the Finnish VAT rate of 24 percent was applied to all sales and some purchases. However, in reality, sales may materialize from any other European Union countries (considered as an exception).
16	Finnish VAT rate of 10 percent was applied to transportation costs.
17	Supplier payment for the inventory procured. The business owner will be paying for inventory on the same month until such time credit relationships with the inventory suppliers (designers) can be established.
18	Payment to consignor for the previous month's consignment sales (consignment sales for January will be paid in February and so on).
19	Variable costs (card and transaction fees) will be settled in the same month (deducted from the transaction value during processing).

Note Number	Explanation
20	Some fixed costs will be settled by either bankcard (online purchase) or supplier invoice. It is assumed that the credit card and vendor invoices will be received on the third week of the month, with fifteen days' credit period. Consequently, current month's costs will be settled the following month. E-commerce platform charges, advertising costs (Facebook and Twitter advertisements), and internet and communication costs are some of the costs influenced by the said phenomenon.
21	Income tax will be paid in six instalments as per tax authorities' instructions (refer to cash budget theory in section 2.3).
22	The amount is considered as initial capital. Later on, additional funding shall be structured into the business (where necessary) as debt or additional capital.
23	Business owner's current objective is not to structure financing but rather to determine estimated capital requirement. Hence, cash budget-ending balances have facilitated capital requirement determination. Business owner prefers to structure capital at a later stage.
24	It was assumed that VAT receivable would be refunded immediately after approval by tax administration (after due date of the following month. VAT payable should be paid on due date 12 <sup>th</sup> of next two months).
25	The merchant will charge € 0.15 for processing point of sales transactions. It is assumed that card based transactions will amount to 70 percent of total transactions. Therefore, transaction costs are derived by formula: $(70\% * \text{Number of units}) * 0.15$
26	These are costs for hosting the business' website. The business owner will personally create and maintain the webstore.
27	Assumptions made for this cost were: <ul style="list-style-type: none"> <li>- Employee has an estimated yearly income of € 21600 (monthly income of 1800), resulting in an approximate withholding tax rate of 11 percent as per the 2016 tax calculator (VERO)</li> <li>- Business will require employee's services on part-time basis, for 3 days a week, at a rate of € 10 per hour (€ 960 per month).</li> </ul> <p>Therefore, net salary, TyEL insurance and contributions (employee and employer contributions) will be € 788.64 and € 387.55 (€ 171.36 from employee and € 216.19 from employer) respectively.</p>
28	Cost of leasing a point of sale system (POS system, card reader, cash box, receipt printer) at € 130 per month.

### Appendix 9: Combined Cash budget ending balances for optimistic and pessimistic scenarios

Description	Online Retail Shop (Optimistic Scenario) - Circlet & Lines Combined Cash Budget (Euro) - First Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	1,500	680	(1,217)	866	2,208	3,928	5,735	7,710	9,051	10,958	12,347	14,253
Add cash collection	-	-	3,902	4,977	6,013	6,765	6,844	6,844	6,844	6,844	6,844	6,844
VAT receivable	-	-	65	73	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>1,500</b>	<b>680</b>	<b>2,749</b>	<b>5,916</b>	<b>8,220</b>	<b>10,693</b>	<b>12,579</b>	<b>14,554</b>	<b>15,895</b>	<b>17,802</b>	<b>19,191</b>	<b>21,097</b>
Less cash payments:												
Total Cash payments	820	1,897	1,882	3,708	3,773	4,475	4,288	4,805	4,288	4,805	4,288	5,185
VAT payable	-	-	-	-	519	484	581	698	650	650	650	650
<b>Total disbursement</b>	<b>820</b>	<b>1,897</b>	<b>1,882</b>	<b>3,708</b>	<b>4,293</b>	<b>4,959</b>	<b>4,869</b>	<b>5,503</b>	<b>4,937</b>	<b>5,455</b>	<b>4,937</b>	<b>5,834</b>
<b>Ending Cash balance</b>	<b>680</b>	<b>(1,217)</b>	<b>866</b>	<b>2,208</b>	<b>3,928</b>	<b>5,735</b>	<b>7,710</b>	<b>9,051</b>	<b>10,958</b>	<b>12,347</b>	<b>14,253</b>	<b>15,263</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>680</b>	<b>(1,217)</b>	<b>866</b>	<b>2,208</b>	<b>3,928</b>	<b>5,735</b>	<b>7,710</b>	<b>9,051</b>	<b>10,958</b>	<b>12,347</b>	<b>14,253</b>	<b>15,263</b>

Description	Online Retail Shop (Optimistic Scenario) - Circlet & Lines Combined Cash Budget (Euro) - Second Year											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	15,263	17,170	18,180	20,086	21,096	23,002	24,012	25,919	26,928	28,835	29,845	31,751
Add cash collection	6,844	6,844	6,844	6,844	6,844	6,844	6,844	6,844	6,844	6,844	6,844	6,844
VAT receivable	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>22,107</b>	<b>24,014</b>	<b>25,024</b>	<b>26,930</b>	<b>27,940</b>	<b>29,846</b>	<b>30,856</b>	<b>32,763</b>	<b>33,773</b>	<b>35,679</b>	<b>36,689</b>	<b>38,595</b>
Less cash payments:												
Total Cash payments	4,288	5,185	4,288	5,185	4,288	5,185	4,288	5,185	4,288	5,185	4,288	3,990
VAT payable	650	650	650	650	650	650	650	650	650	650	650	650
<b>Total disbursement</b>	<b>4,937</b>	<b>5,834</b>	<b>4,937</b>	<b>5,834</b>	<b>4,937</b>	<b>5,834</b>	<b>4,937</b>	<b>5,834</b>	<b>4,937</b>	<b>5,834</b>	<b>4,937</b>	<b>4,640</b>
<b>Ending Cash balance</b>	<b>17,170</b>	<b>18,180</b>	<b>20,086</b>	<b>21,096</b>	<b>23,002</b>	<b>24,012</b>	<b>25,919</b>	<b>26,928</b>	<b>28,835</b>	<b>29,845</b>	<b>31,751</b>	<b>33,955</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>17,170</b>	<b>18,180</b>	<b>20,086</b>	<b>21,096</b>	<b>23,002</b>	<b>24,012</b>	<b>25,919</b>	<b>26,928</b>	<b>28,835</b>	<b>29,845</b>	<b>31,751</b>	<b>33,955</b>

Online Retail Shop (Pessimistic Scenario) - Circllet & Lines												
Combined Cash Budget (Euro) - First Year												
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	1,500	726	(695)	537	1,390	2,237	3,623	4,325	5,272	6,268	7,264	7,807
Add cash collection	-	-	2,712	3,283	4,102	4,712	4,785	4,785	4,785	4,785	4,785	4,785
VAT receivable	-	-	56	66	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>1,500</b>	<b>726</b>	<b>2,073</b>	<b>3,886</b>	<b>5,491</b>	<b>6,949</b>	<b>8,408</b>	<b>9,110</b>	<b>10,057</b>	<b>11,053</b>	<b>12,049</b>	<b>12,592</b>
Less cash payments:												
Total Cash payments	774	1,421	1,536	2,497	2,908	3,050	3,721	3,380	3,380	3,380	3,834	3,380
VAT Payable	-	-	-	-	346	276	362	458	409	409	409	409
<b>Total disbursement</b>	<b>774</b>	<b>1,421</b>	<b>1,536</b>	<b>2,497</b>	<b>3,254</b>	<b>3,326</b>	<b>4,083</b>	<b>3,838</b>	<b>3,789</b>	<b>3,789</b>	<b>4,242</b>	<b>3,789</b>
<b>Ending Cash balance</b>	<b>726</b>	<b>(695)</b>	<b>537</b>	<b>1,390</b>	<b>2,237</b>	<b>3,623</b>	<b>4,325</b>	<b>5,272</b>	<b>6,268</b>	<b>7,264</b>	<b>7,807</b>	<b>8,803</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>726</b>	<b>(695)</b>	<b>537</b>	<b>1,390</b>	<b>2,237</b>	<b>3,623</b>	<b>4,325</b>	<b>5,272</b>	<b>6,268</b>	<b>7,264</b>	<b>7,807</b>	<b>8,803</b>

Online Retail Shop (Pessimistic Scenario) - Circllet & Lines												
Combined Cash Budget (Euro) - Second Year												
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cash Balance beginning <sup>22</sup>	8,803	9,799	10,426	11,422	12,050	13,046	13,674	14,670	15,297	16,293	16,921	17,917
Add cash collection	4,785	4,785	4,785	4,785	4,785	4,785	4,785	4,785	4,785	4,785	4,785	4,785
VAT receivable	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total cash available</b>	<b>13,588</b>	<b>14,584</b>	<b>15,211</b>	<b>16,207</b>	<b>16,835</b>	<b>17,831</b>	<b>18,459</b>	<b>19,455</b>	<b>20,082</b>	<b>21,078</b>	<b>21,706</b>	<b>22,702</b>
Less cash payments:												
Total Cash payments	3,380	3,749	3,380	3,749	3,380	3,749	3,380	3,749	3,380	3,749	3,380	3,176
VAT Payable	409	409	409	409	409	409	409	409	409	409	409	409
<b>Total disbursement</b>	<b>3,789</b>	<b>4,157</b>	<b>3,789</b>	<b>4,157</b>	<b>3,789</b>	<b>4,157</b>	<b>3,789</b>	<b>4,157</b>	<b>3,789</b>	<b>4,157</b>	<b>3,789</b>	<b>3,585</b>
<b>Ending Cash balance</b>	<b>9,799</b>	<b>10,426</b>	<b>11,422</b>	<b>12,050</b>	<b>13,046</b>	<b>13,674</b>	<b>14,670</b>	<b>15,297</b>	<b>16,293</b>	<b>16,921</b>	<b>17,917</b>	<b>19,117</b>
Financing <sup>23</sup> :												
Owner deposits (small loan)	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	-	-	-	-	-	-	-	-	-	-	-	-
Interest payment	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total ending cash balance</b>	<b>9,799</b>	<b>10,426</b>	<b>11,422</b>	<b>12,050</b>	<b>13,046</b>	<b>13,674</b>	<b>14,670</b>	<b>15,297</b>	<b>16,293</b>	<b>16,921</b>	<b>17,917</b>	<b>19,117</b>

## Appendix 10. Contribution margin calculations for likely, optimistic, and pessimistic scenarios

Table 6. Likely scenario

Description	Products						
	A	B	C	D	High end	Standard	Total
Unit quantity	201	193	201	201	161	187	
x Sales Price	21	40	21	22	84	55	
<b>Sales revenue</b>	<b>4 157</b>	<b>7 643</b>	<b>4 157</b>	<b>4 422</b>	<b>13 460</b>	<b>10 285</b>	<b>44 123</b>
<u>- Variable cost</u>							
Cost of Goods Sold (unit cost x unit quantity)	(1 889)	(3 474)	(1 889)	(2 010)	(6 118)	(4 675)	(20 056)
Transaction fee (2% x sales revenue)	(83)	(153)	(83)	(88)	(269)	(206)	(882)
Card fees (0.3 x unit quantity) + (2.9% x sales revenue)	(181)	(280)	(181)	(189)	(439)	(354)	(1 623)
<b>Contribution Margin (Sales revenue – Variable cost)</b>	<b>2 003</b>	<b>3 736</b>	<b>2 003</b>	<b>2 135</b>	<b>6 634</b>	<b>5 050</b>	<b>21 562</b>
- Total Fixed Costs							(9 140)
<b>Operating Income</b>							<b>12 422</b>
Unit Cost	9.4	18.0	9.4	10.0	38.0	25.0	
Sales Mix (product sales/total sales)	9.4 %	17.3 %	9.4 %	10.1 %	30.5 %	23.3 %	100 %
Break-even sales	1 758.12	3 235.70	1 758.12	1 889.05	5 704.55	4 357.90	18 703.44
Contribution margin per unit (contribution margin / unit quantity)	10.0	19.4	10.0	10.6	41.2	27.0	



Table 7. Pessimistic scenario

Item	Products						
	A	B	C	D	High end	Standard	Total
Unit quantity	164	157	164	164	142	167	
x Sales Price	19	37	19	21	78	51	
<b>Sales revenue</b>	<b>3 160</b>	<b>5 793</b>	<b>3 160</b>	<b>3 362</b>	<b>11 062</b>	<b>8 559</b>	<b>35 096</b>
<u>- Variable cost</u>							
Cost of Goods Sold (unit cost * unit quantity)	(1 542)	(2 826)	(1 542)	(1 640)	(5 396)	(4 175)	(17 120)
Transaction fee (2%*sales revenue)	(63)	(116)	(63)	(67)	(221)	(171)	(702)
Card fees (0.3*unit quantity) + (2.9%*sales revenue)	(141)	(215)	(141)	(147)	(363)	(298)	(1 305)
<b>Contribution Margin (Sales revenue – Variable cost)</b>	<b>1 415</b>	<b>2 636</b>	<b>1 415</b>	<b>1 508</b>	<b>5 081</b>	<b>3 914</b>	<b>15 969</b>
- Total Fixed Costs							(9 140)
<b>Operating Income</b>							<b>6 829</b>
Unit Cost	9.4	18.0	9,4	10.0	38.0	25.0	
Sales Mix (product sales/total sales)	9.0 %	16.5 %	9.0 %	9.6 %	31.5 %	24.4 %	100 %
Break-even sales	1 807.87	3 314.43	1 807.87	1 928.40	6 327.55	4 901.34	20 087.46
Contribution margin per unit (contribution margin / unit quantity)	8.6	16.8	8.6	9.2	35.8	23.4	

Online Retail Shop (Pessimistic Scenario) - Circlet & Lines																	
Sales Budget (Euros) - First Year																	
	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Jul	Aug	Sep	Qtr 3	Oct	Nov	Dec	Qtr 4	Year 1
<b>Inventory Sales</b>																	
<u>Accessory A</u>																	
Sales unit	-	-	10	10	12	17	17	46	18	18	18	54	18	18	18	54	164
Sales price	19	19	19		19	19	19		19	19	19		19	19	19		
Sales revenue	-	-	193	193	231	328	328	886	347	347	347	1 041	347	347	347	1 041	3 160
<u>Accessory B</u>																	
Sales unit	-	-	9	9	12	17	17	46	17	17	17	51	17	17	17	51	157
Sales price	37	37	37		37	37	37		37	37	37		37	37	37		
Sales revenue	-	-	332	332	443	627	627	1 697	627	627	627	1 882	627	627	627	1 882	5 793
<u>Accessory C</u>																	
Sales unit	-	-	10	10	12	17	17	46	18	18	18	54	18	18	18	54	164
Sales price	19	19	19		19	19	19		19	19	19		19	19	19		
Sales revenue	-	-	193	193	231	328	328	886	347	347	347	1 041	347	347	347	1 041	3 160
<u>Accessory D</u>																	
Sales unit	-	-	10	10	12	17	17	46	18	18	18	54	18	18	18	54	164
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	-	-	205	205	246	349	349	943	369	369	369	1 107	369	369	369	1 107	3 362
<b>Total Inventory Sales</b>	-	-	923	923	1 151	1 631	1 631	4 413	1 690	1 690	1 690	5 070	1 690	1 690	1 690	5 070	15 476
<b>Consignment Sales</b>																	
<u>High End</u>																	
Sales unit	-	-	9	9	10	11	16	37	16	16	16	48	16	16	16	48	142
Sales price	78	78	78		78	78	78		78	78	78		78	78	78		
Sales Revenue	-	-	701	701	779	857	1 246	2 882	1 246	1 246	1 246	3 739	1 246	1 246	1 246	3 739	11 062
<u>Standard</u>																	
Sales unit	-	-	11	11	14	16	18	48	18	18	18	54	18	18	18	54	167
Sales price	51	51	51		51	51	51		51	51	51		51	51	51		
Sales Revenue	-	-	564	564	718	820	923	2 460	923	923	923	2 768	923	923	923	2 768	8 559
<b>Total Consignment Sales</b>	-	-	1 265	1 265	1 497	1 677	2 169	5 342	2 169	2 169	2 169	6 507	2 169	2 169	2 169	6 507	19 621
<b>Grand Total Sales Revenue</b>	-	-	2 187	2 187	2 648	3 308	3 800	9 756	3 859	3 859	3 859	11 577	3 859	3 859	3 859	11 577	35 096
<b>Grand Total Sales (Cumulative)</b>	-	-	2 187	2 187	4 835	8 143	11 943	11 943	15 802	19 661	23 520	23 520	27 379	31 237	35 096	35 096	35 096

Figure 17. Sales budget for pessimistic scenario, showing cumulative sales figure at the bottom

Table 8. Optimistic scenario

Item	Products						
	A	B	C	D	High end	Standard	Total
Unit quantity	238	229	238	238	180	207	
x Sales Price	21	40	21	22	84	55	
<b>Sales revenue</b>	<b>4 922</b>	<b>9 068</b>	<b>4 922</b>	<b>5 236</b>	<b>15 048</b>	<b>11 385</b>	<b>50 581</b>
<u>- Variable cost</u>							
Cost of Goods Sold (unit cost * unit quantity)	(2 237)	(4 122)	(2 237)	(2 380)	(6 840)	(5 175)	(22 991)
Transaction fee (2%*sales revenue)	(98)	(181)	(98)	(105)	(301)	(228)	(1 012)
Card fees (0.3*unit quantity) +(2.9%*sales revenue)	(214)	(332)	(214)	(223)	(490)	(392)	(1 866)
<b>Contribution Margin</b>	<b>2 372</b>	<b>4 433</b>	<b>2 372</b>	<b>2 528</b>	<b>7 417</b>	<b>5 590</b>	<b>24 712</b>
- Total Fixed Costs							(9 500)
<b>Operating Income</b>							<b>15 212</b>
Unit Cost	9.4	18.0	9,4	10.0	38.0	25.0	
Sales Mix (product sales/total sales)	9.7 %	17.9 %	9.7 %	10.4 %	29.8 %	22.5 %	100 %
Break-even sales	1 886.12	3 480.57	1 886.12	2 022.23	5 794.46	4 375.01	19 444.51
Contribution margin per unit (contribution margin / unit quantity)	10.0	19.4	10.0	10.6	41.2	27.0	

Online Retail Shop (Optimistic Scenario) - Circlet & Lines																	
Sales Budget (Euros) - First Year																	
	Jan	Feb	Mar	Qtr 1	Apr	May	Jun	Qtr 2	Jul	Aug	Sep	Qtr 3	Oct	Nov	Dec	Qtr 4	Year 1
<b>Inventory Sales</b>																	
<b>Accessory A</b>																	
Sales unit	-	-	14	14	18	25	25	68	26	26	26	78	26	26	26	78	238
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	-	-	290	290	372	517	517	1 406	538	538	538	1 613	538	538	538	1 613	4 922
<b>Accessory B</b>																	
Sales unit	-	-	13	13	18	23	25	66	25	25	25	75	25	25	25	75	229
Sales price	40	40	40		40	40	40		40	40	40		40	40	40		
Sales revenue	-	-	515	515	713	911	990	2 614	990	990	990	2 970	990	990	990	2 970	9 068
<b>Accessory C</b>																	
Sales unit	-	-	14	14	18	25	25	68	26	26	26	78	26	26	26	78	238
Sales price	21	21	21		21	21	21		21	21	21		21	21	21		
Sales revenue	-	-	290	290	372	517	517	1 406	538	538	538	1 613	538	538	538	1 613	4 922
<b>Accessory D</b>																	
Sales unit	-	-	14	14	18	25	25	68	26	26	26	78	26	26	26	78	238
Sales price	22	22	22		22	22	22		22	22	22		22	22	22		
Sales revenue	-	-	308	308	396	550	550	1 496	572	572	572	1 716	572	572	572	1 716	5 236
<b>Total Inventory Sales</b>	-	-	1 402	1 402	1 853	2 495	2 574	6 922	2 637	2 637	2 637	7 912	2 637	2 637	2 637	7 912	24 148
<b>Consignment Sales</b>																	
<b>High End</b>																	
Sales unit	-	-	11	11	14	15	20	49	20	20	20	60	20	20	20	60	180
Sales price	84	84	84		84	84	84		84	84	84		84	84	84		
Sales Revenue	-	-	920	920	1 170	1 254	1 672	4 096	1 672	1 672	1 672	5 016	1 672	1 672	1 672	5 016	15 048
<b>Standard</b>																	
Sales unit	-	-	15	15	18	20	22	60	22	22	22	66	22	22	22	66	207
Sales price	55	55	55		55	55	55		55	55	55		55	55	55		
Sales Revenue	-	-	825	825	990	1 100	1 210	3 300	1 210	1 210	1 210	3 630	1 210	1 210	1 210	3 630	11 385
<b>Total Consignment Sales</b>	-	-	1 745	1 745	2 160	2 354	2 882	7 396	2 882	2 882	2 882	8 646	2 882	2 882	2 882	8 646	26 433
<b>Grand Total Sales Revenue</b>	-	-	3 146	3 146	4 014	4 849	5 456	14 318	5 519	5 519	5 519	16 558	5 519	5 519	5 519	16 558	50 581
<b>Grand Total Sales (Cumulative)</b>	-	-	3 146	3 146	7 160	12 009	17 465	17 465	22 984	28 504	34 023	34 023	39 542	45 062	50 581	50 581	50 581

Figure 18. Sales budget for optimistic scenario, showing cumulative sales figure at the bottom



## **User Guide for a budgeting tool for Circlet & Lines**



## **Table of contents**

1	About the User Guide.....	91
1.1	Tool logic .....	91
1.2	User Guide structure.....	93
1.3	Conventions and typography.....	93
2	Detailed instructions and illustration of the tool components .....	95
2.1	Sales Budget sub-tool (Section 1).....	95
2.2	Cost of Goods Sold, Inventory and Purchases sub-tool (Section 2) .....	99
2.3	Operating Expenses sub-tool (Section 3).....	100
2.4	Budgeted Income Statement sub-tool (Section 4) .....	102
2.5	Capital expenditure, Cash Budgets, and Balance Sheet Sub-tools (Section 5) .....	103
2.6	Sensitivity Analysis sub-tool (Section 6).....	114
2.7	Tips (Section 7).....	120
	Appendices.....	122
	Appendix 1. Logic of User Guide and Budgeting tool.....	122

# 1 About the User Guide

The aim of this user guide is to help a user in learning how to utilize the budget tool. The user would have a clear understanding of logical operation of the tool, and ability to make necessary amendments to suit business needs, for example, the ability to add data for new products.

## 1.1 Tool logic

The structure and logic of the tool in appendix 1 follows the master budget and sensitivity analysis theories, with the aim of enabling the user to

- determine income/loss based on projections (output: income statement)
- determine approximate capital for the business (output: Cash budget)
- determine break-even points, margin of safety, and sales levels at different target profits

The tool is made up of tables, which have numbers on their top left corners (for ease of reference) as indicated in figure 1 below. These tables are located within fourteen tabs in an excel workbook. Names of those tabs are:

- Projections (contains static data, costs, prices and unit sales projections)
- Sales Budget (shows budgeted revenues based on projections made)
- COGS, Inventory and Purchases (shows the value of inventory to be bought to support sales)
- Derive Depreciation (calculates monthly and accumulated depreciation costs)
- Operating Expenses (lists all budgeted variable and fixed operating expenses of the business)
- Income Statement (shows income or loss based on projections)
- Capital Expenditure (shows investments in asset needed to support the business)
- Cash Collection Payments (a summary of actual inflow and outflow of cash expected)
- VAT (calculates VAT obligations for inclusion in the combined cash budget)
- Combined Cash Budget (combines collections, payments and VAT obligations)
- Budgeted Balance sheet (shows financial position of the business)
- Promotion Analysis (for analysing potential financial impact of promotion decisions on budget)
- Sensitivity Analysis (what-if-scenarios to determine break-even points, margin of safety, operating income at different levels of activity, and sales levels at different target profits)
- Derive Income Tax (shows calculations of income tax for inclusion in income statement)

Table number

Projections: Product units				
	Jan	Feb	Mar	Qtr 1
<u>Inventory</u>				
Accessory A	0	0	12	12
Accessory B	0	0	11	11
Accessory C	0	0	12	12
Accessory D	0	0	12	12
Product w				
Product x				
<b>Total</b>	-	-	47	47

Figure 19. Table number appended on right side

Some tables contain additional rows of calculated data at the bottom. These rows are used to manipulate data from tables above it, in order to present data in a format that can be used directly for a particular purpose (figure 2). The output of those rows may be transferred to another sheet as they are, or used to compare easily one set of data to another. It also enables the user to have a clear understanding of the logic used to link different sheet (tabs), instead of accomplishing the same using lengthy formulas.

The rows have tags on the left hand side, which indicate the use of that data. Figure 2 shows that *Grand Total Sales (Cumulative)*, *Total Cost Of Goods Sold (Consignment)*, and *Accumulated Depreciation* are used to determine Break-Even period (B-E), to calculate gross profit in income statement (I-S), and to link accumulated depreciation to Balance Sheet Tab (B-S)

From Sales Budget tab

<b>B-E</b>	Grand Total Sales (Cumulative)	-	-	2,747	2,747
<b>I-S</b>	Total Cost Of Goods Sold (Consignment)	-	-	705	705

From Derive Depreciation tab

<b>B-S</b>	Accumulated Depreciation	6	12	18
------------	--------------------------	---	----	----

Figure 20. Data pre calculated for specific use



## 1.2 User Guide structure

The user guide contains seven sections, six of which address different aspects of the budget tool by following the logical flow of the master budget (from sales budget to budgeted balance sheet), and incorporating sensitivity analysis capabilities. As per figure 3, sections are associated to components (sub-tools) of the budget tool (appendix 1). Each component is made up of different tabs (sub sections) containing tables, which together they constitute/ deliver the objectives of the component (sub-tool). Each of these tabs has detailed instructions and illustration on how to use them. All budget components (sections or sub-tools) constitute a complete budget tool (figure 3). The seventh section in the user guide contains excel tips that would will help utilizing the tool effectively.

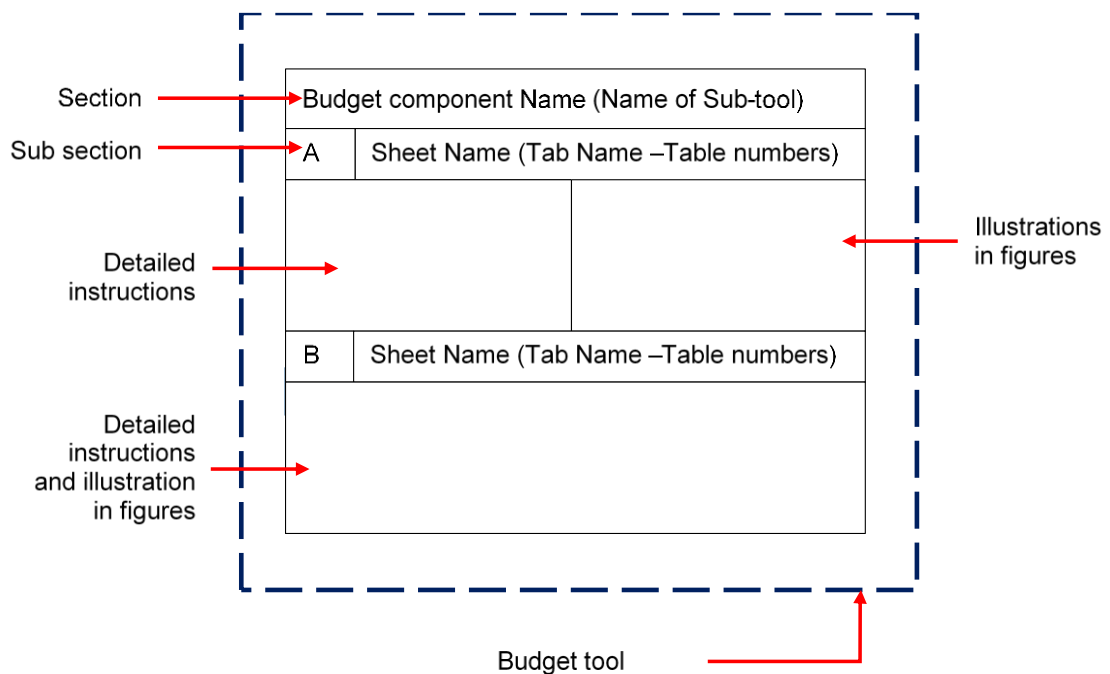


Figure 21. User Guide structure

## 1.3 Conventions and typography

Some key information (notes) in this user guide will be highlighted using the convention in figure 4.

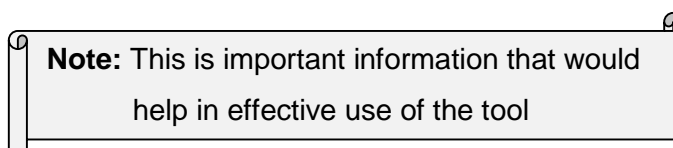


Figure 22. Convention used for key information

The names of tables, fields, rows and columns are *italicized* for emphasis, and references to sections within the user guide are described using the convention: (section number, sub section alphabet, step number(s)). For example, “Depreciation is directly linked to depreciation values in Table 6 (2.1, A, 5)”

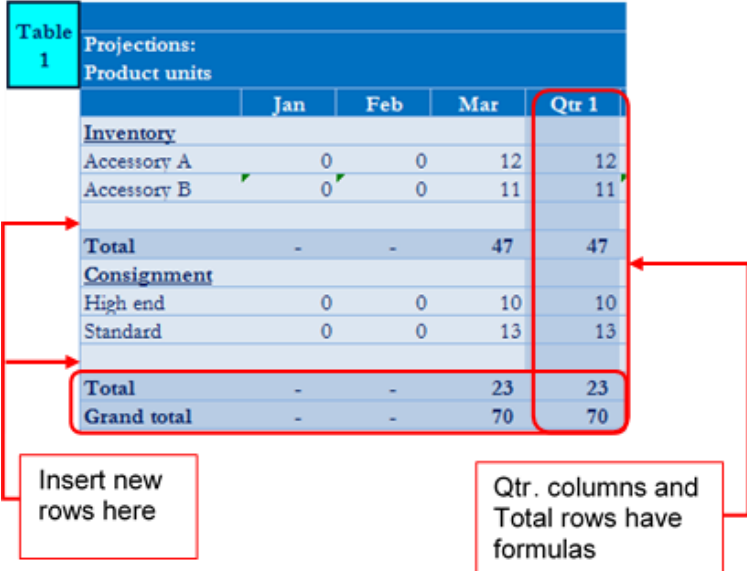
Excel commands within the user guide will be in **bolded text**, and separated by a “>” sign. For example:

- **Right click > insert** requires the user to click the right button of the mouse and select insert.
- **Select row: *Total* > left click & hold > drag down** requires the user to select the row, left click and hold, then drag down.

## 2 Detailed instructions and illustration of the tool components

Instructions given herein are formatted in a multi-level list in order to facilitate precise referencing where necessary (numbers, letters, and roman letters).

### 2.1 Sales Budget sub-tool (Section 1)

A	Projection tab (Table 1-3)
	<ol style="list-style-type: none"> <li>In table 1 (figure 5), insert monthly projections of unit sales for each month</li> <li>Do not insert values in <i>Qtr1</i>, <i>Qtr2</i>, <i>Qtr3</i>, <i>Qtr4</i>, <i>Year End</i>, <i>Total</i> and <i>Grand total</i>. These columns and rows contain formulas that calculate quarterly, yearly, and total figures automatically.</li> <li>Insert projections for products from consignor under <i>Consignment</i>. The tables in <i>Projections</i> tab have four additional empty rows that can be used to enter details of new products</li> <li>The user can also insert new rows to accommodate additional products by selecting the row above the <i>Total</i> and <b>right click &gt; insert</b></li> </ol>  <p>Figure 23. Layout of product units table in projections tab</p> <ol style="list-style-type: none"> <li>If step 4 is taken, apply formula to cells in new rows (figure 6) under <i>Qtr1</i> by             <ol style="list-style-type: none"> <li>selecting the last cell in <i>Qtr1</i> that contains formula</li> <li><b>right click &gt; copy</b></li> </ol> </li> </ol>

- c. select the new cells right below it and **right click > Paste options: formulas** (third icon with function (“fx”) symbol)

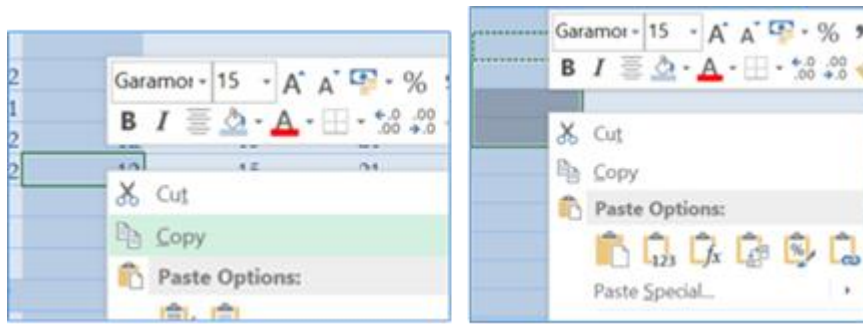


Figure 24. Copying formula in new cells

6. Repeat steps 5a-c, for *Qtr2*, *Qtr3*, *Qtr4*, and *Year End* for Inventory and/or consignment products. This method of copying a formula(s) can be used in any tab.
7. Table number 2 (figure 7) contains costs and prices for products under budget. Stock column indicates items that are business' inventory (to purchase) and those under consignment (on consignment)
8. Insert cost of each item under budget in *Cost* (€, *excl. VAT*)
9. If all products have a uniform mark-up, insert the mark-up percentage in the *Mark-up* field (figure 7)
10. The tool then populates prices and COGS rate in *Automated* column and *Cost Of Goods Sold* field respectively

Name	Stock	Cost (€, excl. VAT)	Automated	Manual input
Accessory A	To Purchase	9	21	
Accessory B	To Purchase	18	40	
Accessory C	To Purchase	9	21	
Accessory D	To Purchase	10	22	
High end	On consignment	38	84	
Standard	On consignment	25	55	
<b>If desired margin is standard across products:</b>				
Markup		120%		
Cost of Goods Sold (% of sales)		45%		
<b>If desired margin is not standard across products:</b>				
Cost of Goods Sold (% of sales)				

Figure 25. Uniform mark-up and pricing automation (table 2)

11. If products have varying mark-ups (figure 8), then

- a. insert "0" in *Mark-up*
- b. insert pricing manually under *Manual input*
- c. cell D47 will display *Cost of Goods sold* for manual input.

Name	Stock	Cost (€, excl. VAT)	Automated	Manual input
Accessory A	To Purchase	9	0	
Accessory B	To Purchase	18	0	
Accessory C	To Purchase	9	0	
Accessory D	To Purchase	10	0	
High end	On consignment	38	0	
Standard	On consignment	25	0	
<b>If desired margin is standard across products:</b>				
Markup		0%		
Cost of Goods Sold (% of sales)				
<b>If desired margin is not standard across products:</b>				
Cost of Goods Sold (% of sales)	Enter price on column: Manual Input			

Annotations in the image:

- A red box points to the 0% Markup value with the text: "Set to zero for varying mark-up"
- A red box points to the "Enter price on column: Manual Input" text with the text: "Message displayed if Markup set to zero"

Figure 26. Manual pricing due to varying mark-up

**Note:** If the user sets *Mark-up* 0% without any pricing in *Manual input*, cell D47 will display instructions "Enter price on column: Manual input". This instruction will be replaced by a *Cost of Goods Sold* rate once the user starts inserting prices in *Manual Input*

**B Sales Budget tab (Table 4)**

1. No user input is required. Sales budget is populated automatically using data from *Projections* tab (*unit sales*, *unit cost*, and *unit price*).
2. As per figure 9, *Inventory sales* and *consignment sales* are separated to facilitate easy/logical linkage of inventory sales to the *COGS*, *inventory + purchases* tab, and *Income Statement* tab. Inventory sales are used to calculate *Cost of Goods Sold* value (consignment sales are not part of business inventory, hence excluded in calculation)
3. *Grand Total Sales Revenue* is used in *Income Statement* tab (2.4, A, 3)

4. *Grand Total Sales Revenue (Cumulative)* is for tracing Break-even period, by matching the Break-even sales to the cumulative sales values between January and December of the first and second year respectively.
5. *Total Cost Of Goods Sold (Consignment)* data is transferred to *Income Statement tab* to calculate *Gross Profit* (2.4, A, 5)
6. The sales budget tab has empty rows for four additional products. The user may follow steps 4 to 6 in 2.1, A, to insert new rows to accommodate sales data for added products.
7. Where necessary, the user should change the cell reference of copied formula and insert correct reference to cells that contain data for the new product (2.7, A).

Table 4		Inventory Sales	Jan	Feb	Mar	Qtr 1
		<u>Accessory A</u>				
		Sales unit	-	-	12	12
		Sales price	21	21	21	
		Sales revenue	-	-	248	248
		<b>Total Inventory Sales</b>	-	-	1,196	1,196
		<u>Consignment Sales</u>				
		<u>High End</u>				
		Sales unit	-	-	10	10
		Sales price	84	84	84	
		Sales Revenue	-	-	836	836
		Unit cost (Consignor's price)	38	38	38	
		Cost Of Goods Sold (Consignment)	-	-	380	380
		<b>Total Consignment Sales</b>	-	-	1,551	1,551
		<b>Grand Total Sales Revenue</b>	-	-	2,747	2,747
	<b>B-E</b>	Grand Total Sales (Cumulative)	-	-	2,747	2,747
	<b>I-S</b>	Total Cost Of Goods Sold (Consignment)	-	-	705	705

Figure 27. Sample of Sales budget tab showing few products in quarter one

## 2.2 Cost of Goods Sold, Inventory and Purchases sub-tool (Section 2)

A	COGS, Inventory + Purchases tab (Table 5)																																																								
	<ol style="list-style-type: none"> <li>1. As per figure 10, the user should input percentage of <i>ending inventory</i> and <i>safety stock</i> (pink cells), under <i>Inventory %</i> and <i>Safety Stock</i> columns (as percentage of next month's Cost of Goods Sold)</li> <li>2. The rest of the table contains formulas that enables automatic population of data, after generation of sales budget</li> <li>3. <i>Total inventory sales</i> data come from <i>Sales budget</i> tab (2.1, B, 2) while <i>Cost of Goods Sold</i> rate is obtained from <i>Projections</i> tab (2.1, A, 10 &amp; 11c).</li> <li>4. The user should consider using <i>safety stock</i> to cover unanticipated sales in the first months of setting up the business. As per figure 10, business does not expect sales for the month of January and February. Only safety stock is budgeted for the two months.</li> <li>5. Ending inventory of one month is the beginning inventory of the next (figure 10).</li> <li>6. <i>Inventory Purchases</i> data is later used in preparation of Income Statement (2.4, A, 4)</li> </ol>																																																								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="7" style="background-color: #0056b3; color: white;">Merchandise</th> </tr> <tr> <th style="background-color: #0056b3; color: white;"></th> <th style="background-color: #0056b3; color: white;">Inventory %</th> <th style="background-color: #0056b3; color: white;">Safety stock</th> <th style="background-color: #0056b3; color: white;">Jan</th> <th style="background-color: #0056b3; color: white;">Feb</th> <th style="background-color: #0056b3; color: white;">Mar</th> <th style="background-color: #0056b3; color: white;">Qtr 1</th> </tr> </thead> <tbody> <tr> <td>Total Inventory Sales</td> <td></td> <td></td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: right;">1,196</td> <td style="text-align: right;">1,196</td> </tr> <tr> <td>Cost Of Goods Sold</td> <td style="text-align: center;">45%</td> <td style="text-align: center;">45%</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: right;">544</td> <td style="text-align: right;">544</td> </tr> <tr> <td>Plus: Ending inventory</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">20%</td> <td style="text-align: right;">109</td> <td style="text-align: right;">109</td> <td style="text-align: right;">140</td> <td style="text-align: right;">140</td> </tr> <tr> <td>Total inventory required</td> <td></td> <td></td> <td style="text-align: right;">109</td> <td style="text-align: right;">109</td> <td style="text-align: right;">684</td> <td style="text-align: right;">684</td> </tr> <tr> <td>Less: Beginning inventory</td> <td></td> <td></td> <td></td> <td style="text-align: right;">109</td> <td style="text-align: right;">109</td> <td style="text-align: center;">-</td> </tr> <tr> <td><b>Inventory Purchases</b></td> <td></td> <td></td> <td style="text-align: right;"><b>109</b></td> <td style="text-align: center;"><b>-</b></td> <td style="text-align: right;"><b>575</b></td> <td style="text-align: right;"><b>684</b></td> </tr> </tbody> </table> <p style="text-align: center;">Figure 28. Sample COGS, Inventory, and Purchases tab (table 5)</p>	Merchandise								Inventory %	Safety stock	Jan	Feb	Mar	Qtr 1	Total Inventory Sales			-	-	1,196	1,196	Cost Of Goods Sold	45%	45%	-	-	544	544	Plus: Ending inventory	20%	20%	109	109	140	140	Total inventory required			109	109	684	684	Less: Beginning inventory				109	109	-	<b>Inventory Purchases</b>			<b>109</b>	<b>-</b>	<b>575</b>	<b>684</b>
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Less: Beginning inventory				109	109	-																																																			
<b>Inventory Purchases</b>			<b>109</b>	<b>-</b>	<b>575</b>	<b>684</b>																																																			

### 2.3 Operating Expenses sub-tool (Section 3)

A Derive Depreciation tab (Table 6)										
Table 6	Derivation: Depreciation									
	Asset details									
	Item	Quantity	Unit cost(€)	Total Cost (€)	Month bought (1-24)	Useful life (Yrs)	Estimated Residual Value (€)	Total/Year (€)	Total/Month (€)	Jan 1
	Coat Hanger	-	50	-	-	7	-	-	-	-
	Table	-	209	-	-	7	-	-	-	-
	Chair	-	100	-	-	7	-	-	-	-
	Computer	1	300	300	1	5	-	60	5	-
	Printer	1	60	60	1	5	-	12	1	-
	Coffee machine	-	25	-	-	5	-	-	-	-
	<b>Total</b>			<b>360</b>				<b>72</b>	<b>6</b>	
<b>B-S</b>	Accumulated Depreciation									

Figure 29. Sample of Derivation Depreciation tab (table 6)

- Type in names of all business assets, their related quantities, and unit costs under *Item*, *Quantity*, and *Unit Cost* (€) respectively (figure 11). These items also appear in *Capital Expenditure* tab (2.5, A, 1)
- Enter the month (in number) in which the business plans to purchase each asset. Acceptable numbers are between 1 and 24 (representative of twenty-four months of the two-year budget).
- Enter the perceived useful life of each asset and the residual value. For purposes of budgeting, recommended residual value is zero.
- Only *Item* and pink columns are open for data input. Remaining columns contain formulas that produce monthly depreciation values based on data input (figure 11)
- Total depreciation values for each month (in *Total* row) are linked directly to Operating Expenses tab (2.3, B, 5)
- The user can add new rows and copy formula for new assets as follows (figure 11):
  - Select row:** *Total* > **right click** > **insert**. Then, enter asset name in *Item* column
  - Review** > **Unprotect sheet** > **password: cl**. Unprotect sheet in order to adjust formulas into new row



	<ul style="list-style-type: none"> <li>c. In <i>Total Cost</i> column, the user should select the last cell containing formula, place mouse cursor on the cell's bottom right corner, and <b>left click &gt; hold &gt; drag down</b> to the new cell(s)</li> <li>d. In <i>Total/ Year</i> column, the user should select the last cell containing formula, and hold <b>shift + right arrow</b> to select all the cells to its' right (from <i>Total/ Month</i> column across to <i>Dec 24</i> column).</li> <li>e. While cells are selected, the user should place mouse cursor at the bottom right corner of the last cell (under <i>Dec 24</i> column), then <b>left click &gt; hold &gt; drag down</b> to new cells. This will copy the formula from above cells into the new cells below.</li> <li>f. The user may repeat step 6a-e, for all new rows inserted.</li> <li>g. Re-lock the cells (<b>Review &gt; Protect sheet &gt; password: cl</b>)</li> </ul> <p>7. <i>Accumulated depreciation</i> data (yellow row) is populated automatically by the tool, for use in balance sheet tab as indicated by the "B-S" tag on the left side (figure 11).</p>
<b>B</b>	<b>Operating Expenses tab (Table 7)</b>
	<ul style="list-style-type: none"> <li>1. Figure 12 below, shows two categories of expenses: variable costs and fixed costs</li> <li>2. The user should not input variable costs for <i>Card fees</i> and <i>Transaction fee (online shop)</i>. The costs are populated automatically using data from Tables 1 (product units projections) and 3 (merchant transaction costs) in <i>Projections</i> tab, and Table 4 (total sales revenue) in <i>Sales Budget</i> tab. Any changes to variable cost structure should be changes at source tables in <i>Projections</i> tab</li> <li>3. Therefore; changes in sales revenue, projected sales units, and merchant transactional costs will automatically change the total variable costs in <i>Operating Expenses</i> tab</li> <li>4. The user may add new rows under variable costs by inserting rows above <i>total variable costs</i> (<b>select row: Total Variable Costs &gt; right click &gt; insert</b>)</li> <li>5. The tool purposely lists depreciation as the first line item under fixed costs because it is automatically populated. <i>Depreciation</i> is directly linked to depreciation values in <i>Derive Depreciation</i> tab (figure 11 and 2.3, A, 5). This field will display zero value if the business does not plan to procure assets</li> </ul>

6. The user can input details of other planned fixed costs in their respective months, for all quarters. *Qtr 1, Qtr 2, Qtr 3, Qtr 4, Year-end 1, and Year-end 2* details are populated by embedded formulas
7. *Total Costs* are linked to the *Income Statement* tab (2.4, A, 6)

		Jan	Feb	Mar	Qtr 1
<b>Variable Costs</b>					
1	Credit Card fees	-	-	101	101
2	Transaction fee (Online Shop)	-	-	55	55
	<b>Total Variable Costs</b>	-	-	<b>156</b>	<b>156</b>
<b>Fixed Costs</b>					
	Depreciation	6	6	6	18
	Advertising	170	170	170	510
	Accounting package (Cloud)	-	25	25	50
	<b>Total Fixed Costs</b>	<b>1,026</b>	<b>1,051</b>	<b>1,051</b>	<b>3,127</b>
					-
	<b>Total Costs</b>	<b>1,026</b>	<b>1,051</b>	<b>1,206</b>	<b>3,283</b>

Figure 30. Sample of Operating Expenses tab (table 7)

## 2.4 Budgeted Income Statement sub-tool (Section 4)

A	Income Statement tab (Table 8)
1.	<i>Operating Income</i> tab enables the user to calculate profits or losses resulting from the projections.
2.	The user can enter interest income and expense data (if available) in <i>Interest Income</i> and <i>Interest expense</i> fields (figure 13). The tool automatically generates remaining data using embedded formulas that link to preceding tabs.
3.	<i>Revenue</i> field sources data from <i>Grand total sales revenue</i> in <i>Sales Budget</i> tab (2.1, B, 3)
4.	<i>Cost Of Goods Sold (Inventory)</i> field sources data from <i>Inventory Purchases</i> in <i>COGS, Inventory + Purchases</i> tab (2.2, A, 6)
5.	<i>Cost Of Goods Sold (Consignment)</i> field sources data from <i>Total Cost Of Goods Sold (Consignment)</i> in <i>Sales Budget</i> tab (2.1, B, 5)

6. *Operating expenses* field sources data from *Total Cost* in *Operating Expenses* tab (2.3, B, 7)
7. Yellow rows (*Retained Earnings Summary*) transfer ending balance of retained earnings into *Balance Sheet* tab as indicated by the tag “B-S” on the left side (figure 13)

Table 8	Item	Jan	Feb	Mar	Qtr 1	
					Total	Margin
	Revenue	-	-	2,747	2,747	100.0%
	Less: Cost of Goods Sold (Inventory)	-	-	(544)	(544)	19.8%
	Less: Cost of Good sold (Consignment)	-	-	(705)	(705)	25.7%
	Gross Profit	-	-	1,498	1,498	54.5%
	Less: Operating Expenses	(1,046)	(1,071)	(1,226)	(3,342)	121.7%
	<b>Operating Income (Loss)</b>	<b>(1,046)</b>	<b>(1,071)</b>	<b>272</b>	<b>(1,844)</b>	<b>-</b>
	Add: Interest income	-	-	-	-	
	Less: Interest expense	-	-	-	-	
	<b>Income before taxes</b>	<b>(1,046)</b>	<b>(1,071)</b>	<b>272</b>	<b>(1,844)</b>	<b>-</b>
	<b>Net Income (Loss)</b>					

Retained Earning Summary					
	Beginning Balance	-	(1,046)	(2,116)	
	Operating Income (Loss)	(1,046)	(1,071)	272	
<b>B-S</b>	Ending Balance	(1,046)	(2,116)	(1,844)	

Figure 31. Sample Income Statement tab (table 8)

## 2.5 Capital expenditure, Cash Budgets, and Balance Sheet Sub-tools (Section 5)

A	Capital Expenditure tab (Table 9)
	<ol style="list-style-type: none"> <li>1. The user is not required to input asset names in <i>Item</i> column. The <i>Item</i> column in this tab is linked to <i>Item</i> column in <i>Derive Depreciation</i> (2.3, A, 1). Hence, the tool will automatically display items from <i>Derive Depreciation</i> tab in the <i>Capital Expenditure</i> tab (any capital equipment have to be depreciated and hence, its information will exist first in the <i>derive depreciation</i> tab).</li> </ol>

- Therefore, where necessary, the user should insert the same number of rows as those inserted in *Derive Depreciation* tab (above *Capital Expenditure* field, Figure 32). Additionally, linking formula in *Item* should be copied to new cells below using procedure in 2.7, C. Dragging down the last cell containing data in *Item* will display new items entered in *Derive Depreciation* tab (figure 14)
- Yellow row uses data in table above to calculate cumulative fixed asset values for the balance sheet as indicated by the “B-S” tag on the row’s left side (figure 14).

Table 9					
Item	Jan	Feb	Mar	Qtr 1	
Coat Hanger	-	-	-	-	
Table	-	-	-	-	
Chair	-	-	-	-	
Computer	300	-	-	300	
Printer	60	-	-	60	
Coffee machine	-	-	-	-	
Capital Expenditure	360	-	-	360	
Insert new rows here					
<b>B-S</b> Accumulated Capital Expenditure (Fixed Assets)	360	360	360		

Figure 32. Sample of Capital Expenditure tab (table 9)

**B Cash Collections Payments tab (Table 10)**

- The *Cash Collections Payments* tab shows actual monthly cash inflows and outflows (VAT inclusive)
- The tool groups inflows (*cash collections*) and outflows (*cash payments*) according to VAT rate categories (*General rate 24%, reduced rate 14%, reduced rate 10%, and No VAT*). *No VAT* should contain all inflows/ outflows that are VAT exempted or by their nature, VAT is inapplicable. Salaries, bank transactional charges, interest income, and insurance costs are examples of such flows. There are five extra rows for each category should the user need to add new inflows/outflows.

3. The user may add more rows if required, by selecting the last row that has content (figure 15), then **right click > insert**
4. Monthly values entered for each inflow or outflow should not include VAT. VAT is included in the totals. As a result, inflow and outflow values can be linked from other source tabs (in VAT exclusive form) to reduce possible errors resulting from manual data entry (refer to 2.7, B on how to link data)
5. The tool gets data of common inflows and outflows from other tabs. For example, *Total Inventory Sales and Total Consignment Sales* (figure 15), originate from *Sales Budget* tab.
6. Remember to consider anticipated timing of collections (inflows) and payments (outflows) when entering data in this tab. For example:
  - a. Sales in Figure 33 are retail sales where payment is considered to be instant (sales revenue of one month would be collected in the same month). Therefore, the user can link January total inventory sales (cell D40) in *Sales budget* tab to cell E8 (total inventory sales collection for January).

	Jan	Feb	Mar
<b>CASH COLLECTIONS</b>			
General rate 24%			
Total Inventory Sales	-	-	1,196
Total Consignment Sales	-	-	1,551
<b>TOTAL CASH COLLECTION (VAT INCL.)</b>			
	-	-	3,406
<b>CASH PAYMENTS</b>			
General rate 24%			
Advertising	170	170	170
Total Cash Payment	853	303	1,890
Reduced rate 14%			
Total Cash Payment	-	-	-
<b>GRAND TOTAL CASH PAYMENT (VAT INCL.)</b>			
	1,664	1,113	2,856

Select last row with content

Figure 33. Sample collection and payments tab (table 10)

**C VAT tab (Table 11)**

1. VAT table (figure 16) allows the user to budget for VAT obligations in order to estimate cash budget outflows, and possibly inflows resulting from sales tax.
2. No input is required. Embedded formulas will populate monthly VAT figures once the user completes preparation of cash collection and payment budget (*Cash Collections Payments* tab)
3. The tool calculates VAT element for each VAT category in both collections (*Output VAT*) and payments (*Input VAT*)
4. Three VAT categories (*General rate 24%*, *Reduced rate 14%*, and *Reduced rate 10%*) are used in payment section (*Input VAT*)
5. *General rate 24%* is the only category used in collection section (*Output VAT*) because all products are sold at 24% VAT rate
6. The tool transfers the resulting VAT payable and receivable values into the combined cash budget through embedded formulas.

	Jan	Feb	Mar
<b>OUTPUT VAT</b>			
<b>General rate 24%</b>			
Total Cash Collections (VAT incl)	-	-	3,406
Total Cash Collections (VAT excl)	-	-	2,747
<b>TOTAL OUTPUT VAT</b>	-	-	<b>659</b>
<b>INPUT VAT</b>			
<b>General rate 24%</b>			
Total Cash Payment (VAT incl.)	869	319	1,906
Total Cash Payment (VAT excl.)	701	257	1,537
<b>Input VAT</b>	<b>168</b>	<b>62</b>	<b>369</b>
<b>GRAND TOTAL INPUT VAT</b>	<b>178</b>	<b>72</b>	<b>379</b>
<b>VAT PAYABLE/(RECEIVABLE)</b>	<b>(178)</b>	<b>(72)</b>	<b>280</b>
VAT balance transferred to combined cash budget and balance sheet			

Figure 34. Sample VAT tab (table 11)

**D Combined Cash Budget tab (Table 12)**

1. It is a combination of data from *Cash Collection Payment* tab, and *VAT* tab

2. The user is required to enter opening balance (*Cash Balance beginning*), which is the cash amount that the business will use to start operations. Figure 17 shows cash (capital) worth € 2,000
3. Monthly budgeted cash collections (from sales) would be added to the opening balance to obtain cash balance available for paying out obligations (*Total cash available*)
4. The tool calculates monthly budgeted ending cash balance by subtracting due monthly obligations (*Total disbursement*) from available cash (*Total cash available*)

	Jan	Feb	Mar
Cash Balance beginning	2,000	314	(823)
Add cash collection	-	-	3,406
VAT returns	-	-	178
<b>Total cash available</b>	<b>2,000</b>	<b>314</b>	<b>2,762</b>
Less cash payments:			
Total Cash payments	1,686	1,136	2,879
VAT Payable			-
<b>Total disbursement</b>	<b>1,686</b>	<b>1,136</b>	<b>2,879</b>
<b>Ending Cash balance</b>	<b>314</b>	<b>(823)</b>	<b>(118)</b>
Financing:			
Owner deposits (small loan)	-	-	-
Borrowing	-	-	-
Repayment	-	-	-
Interest payment	-	-	-
<b>Total ending cash balance</b>	<b>314</b>	<b>(823)</b>	<b>(118)</b>
Minimum cash balance:			

Funding options and related repayment and interest obligations are entered here

Figure 35. Sample Combined Cash Budget (table 12)

5. By observing the ending balance, the user can make financing decisions where necessary, to fund bank account in order to maintain the required balance.
6. The tool allows the user to factor in additional capital from different sources, and their related repayment obligations as detailed below (refer to figure 17):

	<ul style="list-style-type: none"> <li>a. Cash value from owner's reserve should be entered in <i>Owner deposits (small loan)</i></li> <li>b. Cash value from financial institutions should be entered in <i>Borrowing</i></li> <li>c. Repayments resulting from borrowing should be entered in <i>Repayment</i>, in due month</li> <li>d. Expenses resulting from financing (step 6b) should be entered in <i>Interest payment</i>, in due month</li> </ul> <p>7. If the user would like to have a minimum cash balance in account, they can indicate that value in <i>Minimum cash balance</i> field, and review funding decisions should the ending balance (<i>Total ending cash balance</i>) go below the required minimum cash balance.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>Note:</b> the tool does not use minimum cash balance in any calculation. It is purely for reference (the user is expected to conduct visual comparison between <i>Total ending cash balance</i> and <i>Minimum cash balance</i> (step 7))</p> </div>
<b>E</b>	<b>Balance Sheet tab (Table 13)</b>
	<ul style="list-style-type: none"> <li>1. The tab shows potential financial position of the business (as per budget)</li> <li>2. For ease of use, some common balance sheet items have already been added as per figure 18. However, the user may add rows if additional items are required.</li> <li>3. <i>01-Jan</i> column shows financial position before commencing business. At this point, the user would indicate the amount of cash in hand and/or bank (cash available for business) as current asset in the pink cell (figure 18). The user will have already indicated same amount in combined cash budget as <i>Cash balance beginning</i> (figure 17)</li> <li>4. The user then indicates source of the cash in hand, whether it is from a loan (short term or long-term loan) or own resources (capital) by appropriately entering values in each pink cell in <i>01-Jan</i> column. The example in figure 18 shows that the business had cash in hand of € 2,000 as capital (no loans taken).</li> <li>5. <i>Total Assets</i> sums up <i>Total current assets</i> and <i>Total non-current assets</i> (figure 18)</li> </ul>



6. *Total Liabilities and Equity* sums up *Total current liabilities*, and *Total non-current liability*, and *Total equity* (figure 18)

	01-Jan	31-Jan
<b>ASSETS</b>		
<b>Current Assets</b>		
Cash	2,000	314
Inventory	-	109
VAT receivable	-	178
<b>Total current assets</b>	2,000	601
<b>Non Current Assets</b>		
Fixed Asset	-	360
Less: Accumulated depreciation	-	(6)
<b>Total non current assets</b>	-	354
<b>TOTAL ASSETS</b>	<b>2,000</b>	<b>955</b>
<b>LIABILITIES AND OWNER'S EQUITY</b>		
<b>Current Liabilities</b>		
VAT payable	-	-
Short term loans	-	-
Interest payable	-	-
<b>Total current liabilities</b>	-	-
<b>Non Current Liabilities</b>		
Long term loans	-	-
<b>Total non-current liabilities</b>	-	-
<b>Owner's Equity</b>		
Share Capital	2,000	2,000
Retained earnings	-	(1,046)
<b>Total equity</b>	<b>2,000</b>	<b>955</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>2,000</b>	<b>955</b>
	0.00	-

Cash available for the business

As short term loan, long term loan and/or share capital

Figure 36. Sample balance sheet (table 13)

7. The purple and grey cells are control cells that check if the asset side of the balance sheet balances with the equity and liability side (as per the accounting equation:  $asset = liability + equity$ )
8. If balance sheet is not balancing, the purple cell will change into red colour, showing the cumulative differing amount that can be traced to specific month (s) by observing if there is any figure displayed in grey cells below *Total liability and Equity* row
9. The tool automatically populates data for the following fields (from 31-Jan to Dec of second year of budget):
- Cash from source: *Total ending cash balance* field (*Combined Cash Budget* tab, figure 17)

	<p>b. <i>Inventory</i> from source: <i>Ending inventory</i> field (<i>COGS, Inventory + Purchases</i> tab, figure 10)</p> <p>c. <i>VAT payable and VAT receivable</i> from source: <i>VAT payable/(receivable)</i> field (<i>VAT</i> tab, figure 16)</p> <p>d. <i>Fixed asset</i> from source: <i>Capital expenditure</i> field (<i>Capital Expenditure</i> tab, figure 14)</p> <p>e. <i>Accumulated depreciation</i> from source: <i>Accumulated depreciation</i> field (<i>Derive Depreciation</i> tab, figure 11)</p> <p>f. <i>Retained earnings</i> from source: <i>Ending balance</i> field in retained earnings summary (<i>Income Statement</i> tab, figure 13)</p> <p>10. The user should manually input values in the other balance sheet items as per budget, for example, prepaid and or accrued taxes should be inserted after calculating net asset value (without tax data in the balance sheet).</p> <div data-bbox="464 891 1291 1200" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p><b>Note:</b> by default, capital value shown in the tool (in all months) is the initial the amount of share capital injected into the business (in <i>01-Jan</i> column). However, the user may manually change the values if there is additional capital injected into the business</p> </div>
<b>F</b>	<b>Income Tax Calculation (Table 14-15)</b>
	<p>Follow steps below to estimate income tax (table 14) for first and second year of budget:</p> <ol style="list-style-type: none"> <li>1. Insert total value of payroll in <i>Ref No. 1</i></li> <li>2. Insert estimated gross salary from part time employment in <i>Ref No. 2</i></li> <li>3. Taxable income is automatically populated from <i>Income Statement</i> tab</li> <li>4. Insert total asset value in <i>Ref No. 4</i> as per balance sheet, before any consideration is given to prepaid income tax (no tax element in income statement, cash budget, or balance sheet).</li> <li>5. Insert total liabilities value in <i>Ref No. 5</i> as per balance sheet, before any consideration is given to prepaid income tax (no tax element in income statement, cash budget, or balance sheet). Ensure that the value inserted is preceded by a negative sign to allow its subtraction from total assets.</li> <li>6. Net asset (<i>Ref No. 6</i>) is automatically populated due to step 4 and 5</li> </ol>

7. As per Finnish tax regulation, 30 percent of total payroll is populated using data in *Ref No. 1*
8. Value of Basis for capital income portion is automatically calculated using embedded formula, which sums the values from step 6 and 7
9. Capital income portion is a portion of taxable income from which capital tax is charged. The capital income portion can be either 20 % or 10% of the value of Basis for capital income portion (*Ref No. 8*). In *Ref No. 9*, capital income portion is calculated automatically as 20% of the *basis for capital income portion*
10. Earned income portion (*Ref No. 10*) is automatically calculated by subtracting the capital income portion from taxable income portion

Ref. No	Description	First Year	Second Year
1	Wages/Salaries paid to employees (total payroll)	-	-
2	Estimated gross salary from part time employment	21,240	21,240
3	Taxable income	12,422	19,186
4	Total Assets (before inclusion of prepaid tax)	16,471	16,471
5	(-) Total Liabilities (before inclusion of accrued tax)	(2,549)	(2,549)
6	Net Asset	13,922	13,922
7	(+) 30% of total payroll	-	-
8	Basis for capital income portion	13,922	13,922
	20% as Capital income portion (20% of basis for capital income portion)		20%
9	Capital income portion	2,784	2,784
10	Earned income portion (taxable income - capital income portion)	9,637	16,402
11	Progressive rate (as per estimate from Tax calculator)	18.09%	21.83%
12	Tax (Capital Income)	835	835
13	Tax (Earned income portion)	1,743	3,580
14	Total Tax	2,578	4,415
	10% as Capital income portion (10% of basis for capital income portion)		10%

Figure 37. Part of a income tax calculation (table 14)

11. The user should utilize an online tax calculator to estimate applicable progressive rate (*Ref No. 11, 18 and 22*) based on earned income from employment and from business. Earned income from business (*Ref No. 10, 17 and 23*) is the value derived in step 10
12. Go to tax administration website for individual tax payers and select tax calculator, select the current year's tax calculator and follow steps below:
  - a. Enter personal data on the first page (Figure 38) and click on continue button at the bottom of the page

1 Personal data      2 Income and deductions      3 Results of calculation

---

**Phase 1: Personal data**

Town or city 31.12.2014  [\[Help\]](#)

Church adherence as of 31.12.2014  [\[Help\]](#)

Year of birth  [\[Help\]](#)

Figure 38. Sample personal data (first page - online tax calculator)

- b. Insert estimated annual gross in column *estimated annual gross income* and in column *Gross income from January 1<sup>st</sup>* (figure 21)

1 Personal data      2 Income and deductions      3 Results of calculation

---

**Phase 2: Income and deductions**

Earned income and taxes withheld	Estimated annual gross income	Gross income from January 1st	Tax withheld on gross income from January 1st
Pay and benefits, principal employment <a href="#">[Help]</a>	<input type="text" value="21240,00"/>	<input type="text" value="21240,00"/>	<input type="text"/>
⋮			
Earned income subject to advance tax <a href="#">[Help]</a>	<input type="text" value="9637,00"/>		

Figure 39. Sample salary estimate and earned income from business

- c. Insert value of earned income from business in field *Earned income subject to advance tax* (Figure 39). For example, 9 637 (Ref No. 10) earned income portion for first year is inserted. Click calculate button at the bottom of the page

Calculation of total taxes and tax-like charges for the entire year

Total taxes and tax-like charges for the entire year	5584,30
--	---------

Figure 40. sample of total tax used to calculate progressive tax rate

- d. Tax calculations will be displayed on the third page of the tax calculator. Copy the tax estimate value in field: *Total taxes and tax-like charges for the year* (figure 22), and insert it in table 15 (figure 23) in column C or E

(pink columns) depending on whether first year's or second year's earned income tax. Example, 5 584.30 from figure 22 is inserted in column C

- e. Progressive tax rates (figure 23) will be calculated automatically once earned income tax values from tax calculator are inserted in columns C and E. The progressive tax rate cells in table 15 (figure 23, yellow columns) are linked to table 14 (figure 22, income tax calculation table, yellow cells) in *Ref No. 11, 18 and 22*

Basis for Capital Income Portion (%)	Earned Income (salary)	Earned Income (business)	Earned Income Tax (Tax Calculator)	Progressive Tax Rate	Earned Income (salary)	Earned Income (business)	Earned Income Tax (Tax Calculator)	Progressive Tax rate
	A	B	C	$(C/(A+B)) * 100\%$	D	E	F	$(F/(D+E)) * 100\%$
20%	21,240	9,637	5,267	17.06%	21,240	16,402	7,909	21.01%
10%	21,240	11,030	5,799	17.97%	21,240	17,794	8,461	21.68%
0%	21,240	12,422	6,331	18.81%	21,240	19,186	9,013	22.29%

**Note:**  
Go to VERO website and use calculator to derive progressive tax rate using data in column A, B, D and E

Figure 41. Total tax from calculator is inserted in column C and F (table 15)

- 13. Capital income tax for business (*Ref No. 12*) is automatically calculated using a flat rate of 30% for amount up to € 30 000 and 33% for amount exceeding € 30 000 (as per tax administration office's directive). The user should re-calculate the rate should they make any changes to the budget that would affect budgeted income/ loss in budgeted income statement.
- 14. Earned income tax for business (*Ref No. 13*) is also calculated automatically using progressive rate from table 15 linked to table 14
- 15. Tax information for the remaining options (10% as basis for capital income portion, and entire income as earned income) will be populated automatically once progressive tax rates for both budget years are populated.
- 16. Favourable tax is automatically calculated and displayed in green field at the end of table 14. It is obtained by comparing between 20 percent, 10 percent, and 0 percent methods and selecting the lowest tax value (favourable). The user should apply the most favourable tax (smallest of the three options) to the respective year in income statement, in cell AA17 (first year) and AW17 (second year) as negative figures.)
- 17. The user should then incorporate the tax payment plan in the collections and payments tab (factor in anticipated timing of tax payment, 3 or 6 instalments)

18. If the payment plan will result in prepaid tax and/or tax accrual, then the user should incorporate them (prepaid taxes and tax accruals in the balance sheet as asset and liability respectively).

**Note:** Income tax for self-employed persons (private traders) can be calculated and paid in form of capital income tax and earned income tax, or in form of earned income tax only. This choice is at the discretion of the self-employed person. Hence the reason why it is recommended to select the option that results in less tax burden (favourable option). Financial information of previous year should be used in calculating net asset. However, for new businesses (first year of business), financial information of the same year of foundation (as of the last day of the year) would be used instead. It is recommended for the user to incorporate all relevant items in balance sheet before commencing incorporation of income tax (in form of prepaid or accrual)

## 2.6 Sensitivity Analysis sub-tool (Section 6)

A	Promotion Analysis (Table 16)
	<ol style="list-style-type: none"> <li>1. The user can analyse impact of promotional decisions on profitability, by comparing projections that factor promotion against those that do not. The user can then evaluate the resulting variance and make an informed decision on promotion strategy.</li> <li>2. This is accomplished by conducting what-if-scenarios on a set of promotion decisions (example; price reduction, with estimated volume increase)</li> <li>3. To accomplish that, the user should               <ol style="list-style-type: none"> <li>a. decide the period in which promotion decisions should be implemented</li> <li>b. estimate sales volume that would likely be achieved due to price reduction, for example, an estimation of 15% deduction in price (January of second year), which is expected to yield between 40-55% growth in sales volume</li> </ol> </li> </ol>

4. The user can analyse impact of those decisions by changing *Unit Sales* and *Sales Price* in the Promotion Analysis tab for each product using one of the methods described below:
  - a. First method (If the user has few list of products):
    - i. Make a copy of the Promotion Analysis tab to allow repeated analysis (**right click tab: Promotion Analysis > select: Move or Copy > Alt + C > OK**)
    - ii. On the copied sheet, select the desired month for promotion activities (example: January of second year)
    - iii. Under *Change* column (in January of the second year), change the *Unit sales* and *Sales price* for each product to reflect the above decisions (example; 55% sales volume increase at 15% price decrease).
    - iv. Study the variance in *Total Contribution Margin* and *Operating Income (Loss)* for the month and for the year (figure 26).
  - b. Second method (if the user has many products): the method allows the user to easily make changes that control pricing, product units, and/or additional costs from a single source (tab):
    - i. Make a copy of the entire budget tool (**File > Save As > choose location & assign file name > OK**).
    - ii. On copied tool, select *Projections* tab and change *Product Units* in Table 1 for each product line in the month considered for promotion (January, second year) to reflect the decision (55% increase) as seen in figure 24

Circler & Lines				
Projections: Product units				
	Jan	Feb	Mar	Qtr 1
<u>Inventory</u>				
Accessory A	33	22	22	77
Accessory B	32	21	21	74
Accessory C	33	22	22	77
Accessory D	33	22	22	77
Product w				
Product x				
<b>Total</b>	<b>131</b>	<b>87</b>	<b>87</b>	<b>305</b>

Product units increased by 55%

Figure 42. Increase unit sales (table 1)

- iii. Change Mark-up field to zero in table 2 (figure 25)

- iv. Then enter promotional sales price (with 15% decrease) in column *Manual Input*, for all products involved in promotion. A new Cost of Goods Sold value will be reflected under *Cost of Goods Sold (% of sales price) - Manual Input* field (figure 25)
- v. Open the original budget tool, Make a copy of the Promotion Analysis tab to allow repeated analysis (**right click Promotion Analysis tab > Move or Copy > Alt + C > OK**).
- vi. Go to the copy of the budget in which promotion changes were done, and select *Promotion Analysis* tab
- vii. Go to January (second year) and **Select column: Change > right click > copy**
- viii. Go to the copy of *Promotion Analysis tab* (step v) of original budget tool in January (second year) and replace the values in Change column with the copied ones (**Select column: Change > right click > paste special: values**)

Name	Stock	Cost (€, excl. VAT)	Automated	Manual input
Accessory A	To Purchase	9	0	18
Accessory B	To Purchase	18	0	34
<b><u>If desired margin is standard across products:</u></b>				
Markup		0%		
Cost of Goods Sold (% of sales price) - Automated				
<b><u>If desired margin is not standard across products:</u></b>				
Cost of Goods Sold (% of sales price) - Manual Input		53%		

- Price (decreased by 15%)
- Mark-up set to zero
- New COGS

Figure 43. Price and mark-up changes (table 2)

- ix. Study the variance in *Total Contribution Margin* and *Operating Income (Loss)* for the month and for the year (figure 26)



Inventory Sales	Jan		Year End 2				
	Bdgt	Change	Bdgt	Change	Variance		
<u>Accessory A</u>					Amt	F or U	%
Unit sales	22	35	264	277	13	F	5%
x Sales price	21	18					
Revenue	455	615	5,460	5,620	160	F	3%
- Variable Cost:							
Cost Of Good Sold (inventory)	207	329	2,482	2,604	122	U	5%
Transaction fee (Online Shop)	9	12	109	112	3	U	3%
Credit Card fees	20	28	238	246	9	U	4%
<b>Contribution Margin</b>	<b>219</b>	<b>246</b>	<b>2,631</b>	<b>2,658</b>	<b>26</b>	<b>F</b>	<b>1%</b>
<b>Total Contribution Margin</b>	<b>2,361</b>	<b>2,619</b>	<b>28,326</b>	<b>28,585</b>	<b>259</b>	<b>F</b>	<b>1%</b>
- Total Fixed Costs	1,071	1,071	12,846	12,846	-	-	0%
<b>Operating Income (Loss)</b>	<b>1,290</b>	<b>1,549</b>	<b>15,480</b>	<b>15,739</b>	<b>259</b>	<b>F</b>	<b>2%</b>

Monthly and yearly variances are influenced by other products as well (only one product is listed for demonstration purposes).

Figure 44. Promotional analysis (table 13).

- In example above (figure 26), if the price decrease of 15% yields a 55% growth in sales volume, then the business can achieve a positive variance (from budgeted figures) of 1% and 2% for *Total contribution margin* and *Operating Income*
- Repeat steps in first or second method to create promotion scenarios for other months as needed.

**Note:** before analysis, the *Bdgt* (budget) and *Change* columns always contain budget figures (meaning, there is no variance). The tool indicates favourable and unfavourable variances by letters F and U in the *F or U* column. The colour also changes from yellow to green or red depending on whether the outcome is favourable or unfavourable respectively. Figure 26 shows a single product for illustration purposes.

## B Cost Volume Profit Analysis (Table 17-21)

- The tab enables the user to conduct other types of what-if-scenarios.
- The user can test the impact of changing levels of unit cost, unit sales, sales price, and total fixed costs on profitability and break-even sales points. Each table (Table 17-20) deals with variation of one primary element (unit sales,

sales price, total fixed costs, or unit cost). This allows the user to evaluate impact of all four variants without having to delete or copy information somewhere else in order to free space for running another scenario.

3. To run a scenario where only a single element changes; select the table where that particular element has a pink coloured cell (in *Change (%)* column) as per figure 27 below, and enter an increase or decrease in percentage using positive or negative numbers.
4. The user can run a scenario where more than one element changes, using any of the four tables (table 17-20) as per figure 27.
5. The variants (elements whose values are changed for analysis) control values in *Change* column under each product, which in turn produces variance in *Variance* columns (*Amount, F or U* and *%*) as per figure 27
6. The user can analyse the change impact on contribution margin, operating income, Break-even point, and Margin of safety resulting from variances between budget and change data (refer to figure 27) by changing the four variants.

Change (percentage) controls Change column in each product, resulting in variance.

Name of Table (primary variant)

Item	Accessory A		Sensitivity Analysis 2					
	Budget	Change	Change (%)	Change Sales Price(primary variant)		Variance		
				Budget	Change	Amount	F or U	%
Units	465	460	-1%	2,644	2,618	26	U	1.0%
x Sales Price	21	21	2%					
<b>Sales revenue</b>	<b>9,616</b>	<b>9,710</b>		<b>102,087</b>	<b>103,087</b>	<b>1,000</b>	<b>F</b>	<b>1.0%</b>
- Variable cost								
Cost Of Good Sold	4,371	4,327		46,403	45,939	464	F	1.0%
Transaction fee (Online Shop)	192.32	194.21		2,042	2,062	20	U	1.0%
Credit Card fees	418	420		3,754	3,775	21	U	0.6%
<b>Contribution Margin</b>	<b>4,635</b>	<b>4,769</b>		<b>49,888</b>	<b>51,312</b>	<b>1,423</b>	<b>F</b>	<b>2.9%</b>
- Total Fixed Costs			4%	25,193	26,201	1,008	U	4.0%
<b>Operating Income</b>				<b>24,695</b>	<b>25,110</b>	<b>416</b>	<b>F</b>	<b>1.7%</b>
Unit Cost	9	9						
Weighted Average Contribution Margin Ratio (WACMR)				49%	50%			
Sales Mix	9%	9%						
<b>Break Even Sales</b>				<b>51,554</b>	<b>52,639</b>	<b>1,086</b>	<b>U</b>	<b>2.1%</b>
<b>Margin Of Safety</b>				<b>50,533</b>	<b>50,448</b>	<b>85</b>	<b>U</b>	<b>0.2%</b>

New Break Even Sales and Margin Of Safety due to changes.

Favourable (F) and Unfavourable (U) variances.

Figure 45. Sensitivity analysis (changing levels of sales units, sales price, and total fixed costs)

**Note:** The user should enter values in cells that have double-lined borders, and are pink or grey in colour. Additionally, percentage changes are applied uniformly across all product lines (example, if price change of negative 10 percent is entered, all product prices will be decreased by 10%). Green and Red colours indicate favourable (F) and unfavourable (U) variances respectively.

7. Table 21 (figure 23) enables the user to find out sales levels required to achieve different profit targets.
8. The user can enter specific values of *Total Fixed Costs* and *Weighted Average Contribution Margin Ratio* (in *Manual Input* fields) to calculate Sales levels at specific profit targets.
9. Otherwise, the tool uses budgeted Total Fixed Costs and Weighted Average Contribution Margin Ratio to determine sales levels at different profit targets as seen in figure 28 below.
10. The user can also utilize this table to find out break-even sales by setting profit target to zero

Weighted Contribution Margin Ratio (WACMR)		Total Fixed Costs (TFC)		Sensitivity Analysis 5 Target Profit		
Budget	Manual Input	Budget	Manual Input	1	2	3
49%	0%	25,193	-	-	30000	70000
<div style="border: 1px solid red; padding: 2px; display: inline-block;">Enter Target profit here</div>				51,554	112,943	194,795
		Sales Mix	Sales levels (€)			
		9%	Accessory A	4,856	10,639	18,349
		17%	Accessory B	8,899	19,496	33,625
		9%	Accessory C	4,856	10,639	18,349
		10%	Accessory D	5,166	11,318	19,520
		31%	High End	15,916	34,869	60,139
		23%	Standard	11,860	25,982	44,813

Figure 46. Sales levels at different target profits (table 21)

**Note:** The user should ensure that the *Manual Input* fields are set to “0” in order to allow the tool to use budgeted figures (Total Fixed Costs and Weighted Average Contribution Margin Ratio (WACMR)) in calculating break-even sales for different profit targets.

## 2.7 Tips (Section 7)

A How to copy a formula that references more than one tab (work sheet)												
Sheet Name: Projections, Table 1						Sheet Name: Sales Budget, Table 4						
	C	D	E	F	G		B	C	D	E	F	
			Jan	Feb	Mar	Qtr 1			Jan	Feb	Mar	Qtr 1
7							7					
8	<b>Inventory</b>						8	<b>Inventory Sales</b>				
9	Accessory A	0	0	12	12		9	<b>Accessory A</b>				
10	Accessory B	0	0	11	11		10	Sales unit	-	-	12	12
11	Accessory C	0	0	12	12		11	Sales price	21	21	21	
12	Accessory D	0	0	12	12		12	Sales revenue	-	-	248	248
13	Product w	0	0	28			13					
14	Product x	0	0	17			14	Product w				
15							15	Sales unit	-	-	-	-
16	<b>Total</b>	-	-	47	47		16	Sales price	-	-	-	-
							17	Sales revenue	-	-	-	-

Figure 47. Editing formula containing relative referencing

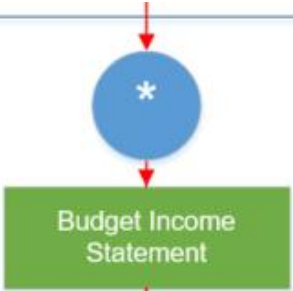



- Above (figure 29), is sample data from Projections and Sales Budget tabs. Formula in Sales Budget sheet, cell E10 (Sales unit) is ='Projections '!D9, which refers to sales unit for Accessory A in Projections sheet
- To copy sales unit formula from Accessory A ( cell E10) to Product W (cell E15):
  - Cell E10: **select>right click>copy**
  - Cell E 15: **select>right click>paste**
- Cell E15 will display formula: ='Projections '!14 (due to relative referencing feature in excel)
- As seen above (figure 294), cell D14 in sheet Projections ('Projections '!D14) refers to units sales for Product x, instead of Product w
- To maintain correct referencing, the user needs to amend the reference in the formular from ="Projections '!D14" to ="Projections '!D13" (from sales units of Product x to Product w) by changing the last digit from 4 to 3. In summary, to ensure correct referencing in formulas, the user may be required to amend cell reference within the copied formula. Therefore it is imperative for the user to navigate to source cell to confirm that a correct cell is being referenced by the copied formula and where necessary, make changes to the column reference (e.g. A) and/or row reference (e.g. 18) within the cell reference (e.g. A18)

<b>B</b>	<b>How to link cells</b>
	<p>To link one cell to another; for example, linking cell A1 to Cell A3, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Select cell which you would want to display data of another cell (A1)</li> <li>2. Type equal sign (=)</li> <li>3. Select the cell with source data (A3)</li> </ol> <p>Any changes to A3 will be displayed in A1. This technique has been used to link asset items in Depreciation into Capital expenditure sheet</p>
<b>C</b>	<b>How to copy formula to cell(s) in new rows</b>
	<ol style="list-style-type: none"> <li>1. To copy formula of a single cell to new cell(s) right below <ol style="list-style-type: none"> <li>a. <b>Select cell:</b> with formula &gt; place cursor on bottom right corner of cell &gt; <b>left click &amp; hold &gt; drag down</b></li> </ol> </li> <li>2. <b>To copy formula of a group of cells in a row to new cells right below</b> <ol style="list-style-type: none"> <li>a. <b>Select left most cell:</b> <i>with formula</i> &gt; <b>shift + right arrow</b> to select all cells on its' right &gt; place cursor on bottom right corner of the last cell on the right &gt; <b>left click &amp; hold &gt; drag down</b></li> </ol> </li> </ol>

## Appendices

### Appendix 1. Logic of the User Guide and Budgeting tool

Alignment of User Guide structure to the Cash Budget tool			
	Theory implemented	Tab (worksheet) names	Brief explanations
User guide Section 1	<p>Sales Budget</p>	<ul style="list-style-type: none"> <li>- Projection</li> <li>- Sales Budget</li> </ul>	<p><b>Projection:</b> Holds forecasted sales in units, the product cost and prices, and other static data to be used in calculations. <b>Sales Budget:</b> Produces sales budget using data in Projection sheet.</p>
User Guide Section 2	<p>Cost of Goods Sold, Inventory, and Purchases Budget</p>	<ul style="list-style-type: none"> <li>- COGS, Inventory + Purchases</li> <li>- Sales Budget</li> <li>- Projection</li> </ul>	<p><b>COGS, Inventory + Purchases:</b> Produces the inventory amount that should be purchased in order to support budgeted sales. <b>Sales Budget:</b> brings total sales data into COGS, Inventory+Purchases to calculate the value of COGS. <b>Projections:</b> Brings the COGS rate (as a percentage of sales)</p>
User Guide Section 3	<p>Operating Expenses Budget</p> <p>*</p>	<ul style="list-style-type: none"> <li>- Operating Expenses</li> <li>- Projection</li> <li>- DeriveDepreciation</li> </ul>	<p><b>Operating Expenses:</b> Produces all expenses related to business. <b>Projection:</b> contain static values (transaction rates) used in deriving variable costs. <b>DeriveDepreciation:</b> this is where depreciation expense is automatically calculated and linked to operating expenses</p>

<p>User Guide Section 4</p>		<ul style="list-style-type: none"> <li>- Income Statement</li> <li>- Sales budget</li> <li>- COGS, Inventory + Purchases</li> <li>- Operating Expenses</li> </ul>	<p><b>Income Statement:</b> contains the budgeted income statement. <b>Sales Budget:</b> links the sales revenue data to income statement. <b>COGS, Inventory + Purchases:</b> links COGS data to income statement. <b>Operating Expenses:</b> links all expenses into income statement</p>
<p>User Guide Section 5</p>		<ul style="list-style-type: none"> <li>- Capital Expenditure</li> <li>- Cash Collection Payments</li> <li>- VAT</li> <li>- Combined Cash Budget (VAT Calculation &amp; Cash Collection Payments)</li> <li>- Budgeted Balance Sheet</li> <li>- Derive Income Tax</li> </ul>	<p><b>Capital Expenditure:</b> contains assets to be purchased. <b>Cash Collection Payments:</b> lists actual collections and payments expected (part of cash budget). <b>VAT :</b> calculates VAT obligations (part of cash budget). <b>Combined Cash Budget:</b> combines the contents of <i>VAT Calculation</i> and <i>Cash Collection Payments</i>. <b>Budgeted Balance sheet:</b> shows the financial position that the company will have as a result of the projections and preceding budgets. <b>Derive Income Tax:</b> Shows calculation of income tax for self-employed persons (private entrepreneurs) to be incorporated in Income statement sheet.</p>
<p>User Guide Section 6</p>		<ul style="list-style-type: none"> <li>- Promotion Analysis</li> <li>- Sensitivity Analysis</li> </ul>	<p><b>Capital Expenditure:</b> allows User to see the impact of promotional pricing to the overall budget. <b>Break Even:</b> Shows Break Even sales and impact of other decision on cost and level of sales</p>
<p>User Guide Section 7</p>			<p>Covers various tips that would help user in operating the tool</p>