Cost Accounting for Internal Decision Making and Evaluation

A Case Study

Master’s thesis within Cost Accounting

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**Abstract**

This study addresses the importance of cost accounting and performance evaluation for organizations. Further, this study explains the purposes of cost accounting and performance evaluation. The chosen method is a single case study which investigates how product costing is made within a food manufacturing company, called Omega in this study. Interviews have been an important tool for collecting data; data used to create a snapshot of Omega’s current operations. Cost concepts, cost allocation methods, and performance evaluation theories are presented and later compared with the snapshot of Omega. Dissatisfaction concerning product costing in Omega was first expressed by a business unit manager. Search revealed that the issue concerning product costing was not a problem per se; instead it was a symptom of a more fundamental issue. The more fundamental issue is Omega’s cost accounting and financial performance evaluation used throughout the organization. Omega evaluates its business units using financial operating results measures based on information from its cost accounting system. Uncertainty within Omega has been observed concerning a performance measure called operational result. Search has revealed that the business units within Omega do not have the ability to control costs upon which they are evaluated, and further that all costs are not relevant for business unit performance evaluation. Three cost categories for cost accounting have been constructed with the purpose of serving as a base for financial performance evaluation. Treating costs differently based upon their characteristics enables organizations to form a well-functioning financial performance evaluation system which can lead the organization in the right direction. Ultimately, a well-functioning financial performance evaluation system enhances motivation and commitment in business units as well as it gives the top management a correct performance indicator.

**Key words:** Cost Accounting, Financial Performance Evaluation, Food Manufacturing Company, Internal Decision Making, Special Orders.
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I. INTRODUCTION

It is not too great an exaggeration to say that Management Accounting and Control Systems (MACS) are so important and ubiquitous today that, if accountants and information people wrapped up their systems and took them home, the whole process of producing society’s material goods and services, along with the governance of the social order, would grind to a standstill (Macintosh and Quattrone, 2009, p. 3).

Macintosh and Quattrone (2009) describe MACS as the nervous system in society; they trace the importance of MACS all the way back to the Kingdom of Egypt and the Roman Empire. The approach and function of the systems were different, but MACS were there to control operations. Today’s multinational corporations use a language more common than English, accounting and finance, which has made MACS more important than ever. There is no dispute about the importance of MACS, however some complexity is involved. Hopper et al. (2007) mention the complexity of organizing people, materials, and technology in organizations in which production characteristics are different. Bhimani (2006) says that management accounting might restrict an organization due to different constraints such as budgets, and that too restrictive constraints might lead to losses of profitable orders. Many elements are included in MACS.

This thesis has a focus on cost accounting and performance evaluation, which are two of the elements of MACS. Cost accounting, for which importance has been shown in many cases illustrated by Macintosh and Quattrone (2009), is defined by the National Association of Accountants as:

A systematic set of procedures for recording and reporting measurements of the cost of manufacturing goods and performing services in the aggregate and in detail. It includes methods for recognizing, classifying, allocating, aggregating, and reporting such costs and comparing them with standard costs (cited in Shim and Siegel, 1999, p.2).
These cost data are then used within MACS for planning, control, and decision making processes (Shim and Siegel, 1999). Cost accounting therefore serves as a ground for decision making within organizations, on the other hand it can lead to faulty decisions if the information is used incorrectly (Bhimani, 2006). Further Bhimani argues that a MACS also needs to account for both current and future situations. Horngren et al. (2009) concur with Bhimani and also mention the strategic consequences of under-costing a product due to incorrect cost information. Andersson (2008) argues that product costing should reflect the actual situation and the real product cost. On the other hand, Andersson says that it is important to have in mind that these calculations are models that should be easily constructed and handled and therefore cannot be too complex and detailed in nature. Product costing is therefore a matter of balance between causality, essentiality and manageability.

Horngren et al. (2009) says that product costs also influence performance evaluation, which has another purpose than the cost accounting. Performance evaluation tells the managers how well they and their employees, or business units (BUs), are doing in performing their tasks, while cost accounting mainly provides cost information. Due to the different purposes, which sometimes conflict with each other, the two elements do not necessarily need to use the same costs.

This is an in-depth case study in a food manufacturing company in which uncertainties reign concerning its present product costing which is used for performance evaluation of BUs and, among others, special orders. The top management is open for a review to make sure the product costing is carried out properly while one of the company’s BUs, BU2, is sure it does not reflect the reality, and hence improperly influences the performance evaluation system. Further, as mentioned earlier information used incorrectly could lead to incorrect decisions from the management. This uncertainty leads to two question formulations which will be used as guidelines throughout the study.

- How can cost accounting be done within an organization in order to serve as a ground for financial performance evaluation?
- Why is business unit two (BU2) dissatisfied with the present product costing in Omega; could the dissatisfaction be resolved and if so, how?
The remainder of this paper will first consist of a *Methodology* section which will motivate the strategy chosen for fulfilling the purpose of the report. The *Theoretical Framework* will follow which will present theories necessary for the latter parts. The empirical data will be presented in section 4 - *The Case Organization* which will, together with the theories, be analyzed and discussed in the *Discussion* section. Finally section 6 - *Conclusion* presents the outcome, learning, and most crucial parts from the discussion.
2. METHODOLOGY

A single case study has been chosen as a method for this study and the methodology section explains why a single case study was considered appropriate as a method when conducting this study. Further the methodology section describes how interviews and other sources of information were used in order to collect data from the case organization. Finally, the validity of the chosen method is discussed.

2.1 Choice of Method and Approach

A case study was selected as the most appropriate method for answering the study questions in this report. This case study is similar to a case study made by Chenhall, Hall, and Smith (2010) which consisted of interviews, general observations, informal meetings, and other observations that intensify understanding. Inglis (2008) also performed a management accounting case study because of its advantages of communication and receiving information that would be difficult to receive if using other methods.

Yin (2009) advocates that a case study research method is appropriate when all of the following three conditions are met:

- The study question is in the form of “how?” or “why?”
- The investigator does not require control of behavioral events in the study.
- The study focuses on contemporary events.

A case study can be explained as a snapshot of a company’s current situation with no requirement of any influence in decisions within that company (Yin, 2009), therefore a case study was considered one suitable research strategy. Goode and Hart (1952) define case study research as holistic and thick research that more or less comprehensively examines a phenomenon (cited in Gerring, 2007). This case study’s choice of method is in line with Goode and Hart’s definition.

The case study has an abductive approach, meaning that empirical data is mixed with theoretical findings. The research process can be explained by designing a theoretical framework, collecting empirical data, and then, if necessary, extending the theoretical framework before comparing the data with theory. The abductive approach therefore allows the study to evolve by extending the theoretical framework if new perspectives or
theories are needed when investigating a phenomenon (Alvesson and Sköldberg, 2008). In this study, a theoretical base is first designed in order to understand the empirical findings which were collected from the case organization in a second step. The theoretical framework is then extended for the purpose of presenting a holistic research, which is well exemplified in practice.

2.2 Collection of Data

The major parts of the empirical data in this study have been gathered through interviews with the management of Omega. Except for an introduction meeting the 18th of November, 2010, the first interviews were conducted between the 24th of January and 26th of January, 2011 and large parts of the fundamental data were collected during these days. The study also includes telephone interviews, electronic interviews, and document analyses. Documents for analyses include income statements, cost distribution documents, and a model for operational results. The case study object has chosen to remain anonymous and will therefore be referred to as “Omega”; a contract have been signed which guarantees Omega’s secrecy.

Yin (2009) believes that interviews are very useful when doing case studies and McKinnon (1988) points out advantages of using interviews as a source. In combination with other observations and documentation analyses it is possible for a researcher to discover signs and different viewpoints of issues within the case study. The purpose of the interviews is to collect data about how each interviewee interprets the phenomena of interest and to understand the interviewees’ perspective. Before the interviews, information concerning the secrecy principles and a brief presentation of the investigators took place. The first interviews, which were fundamental and serve as the basis of the empirical information have been recorded and summarized. Between and after each interview, the taped material is summarized in order to evaluate it. The interviewers shared reflections of the progress, and also considered how the interviewers can be better prepared for coming interviews. King (2004) emphasizes the importance for interviewers to be active in the research process because involvement will influence the study with a higher awareness and add more critical thinking. The summarized interviews have been sent to each of the respondents and according to Steyaert and Bouwen (2004) and Hellberg (1999) this action verifies that the material has been interpreted in a correct manner.
Steyaert et al. further argue that verification of interviews gives important feedback and prevents subjective believes and values. Face-to-face interviews with a special approach have been chosen in this study (Warren and Karner, 2010); it can be considered special because two interviewers instead of one are used and at some interviews two interviewees were present. According to McKinnon (1988) team research can help to diminish the problem of observer bias, because two investigators are more credible than one. A face-to-face interview further gives additional information about feelings and the underlying mood of the interviewee concerning specific issues (Warren and Karner, 2010). Sekaran (2002) argues that this type of information-gathering reduces the risk for misunderstandings in comparison with telephone and electronic interviews. In Kvale’s (1996) description of a qualitative face-to-face interview, he emphasizes the importance of undertaking a listening and questioning approach with only a small number of prepared and planned questions. Kvale further emphasizes that only a low degree of structure should be set up by the interviewers when conducting qualitative studies (cited in Cassell and Symon, 2004). The interviewers followed this procedure and further emphasized Warren and Karner’s strategy by asking probe and prompt questions i.e. questions that examines and spur. According to Warren and Karner, a research interview should contain questions that concern a topic of most interest for the interviewer, but that also might have some relevance for the interviewee. The topic in this case study is not only of interest for the researcher’s but also for Omega as whole because it gives Omega an external and academic viewpoint on its current system.

2.3 Validity

Validity is a commonly used term to assess the quality of research design (Yin, 2009; McKinnon, 1988; Hellberg, 1999). High validity is achieved if studying a phenomenon that is intended to be studied; neither more nor less than the actual phenomenon should be studied (McKinnon, 1988). Yin argues that validity can be increased by using multiple sources of evidence when collecting data and it is also generally considered more convincing and accurate. Interviews, documents, archival records, and direct observations are used in this study and it is therefore not dependent on one single source of evidence. Further, McKinnon argues that multiple sources of evidence can compensate for less time in the field. Multiple sources are also emphasized by Chenhall et al. (2010) as something valuable in their case study.
Interviews have been confirmed with documents explaining the same issue within Omega. One practical example is an interviewee who explained and presented financial results. Later financial documents were provided to the interviewers with the numbers of the issues earlier presented by the interviewee. Convergence of evidence, as in the example above, gives a higher quality and hence a higher validity to the study because different collection methods verify each other (Yin, 2009; Hellberg, 1999; Casell and Symon, 2004; Cheng, 2005). Triangulation of sources and theory/perspective triangulation is another method that has been emphasized. Denzin (1970, cited in Thurmond, 2001) and Kimchi, Polivka and Stevenson (1991) explain that triangulation is obtained through a combination of two or more data sources, investigators, methodological approaches or theoretical perspectives. Patton (1999) uses the same definition and further argues that triangulation verifies and validates the quality of proper analyses.
3. THEORETICAL FRAMEWORK

This section includes three central areas written in an order which can be described as a funnel. First, cost accounting is presented which includes basic cost concepts and cost allocation theories. Secondly, performance evaluation is discussed with a focus on financial measures that have their ground in cost accounting. The third area, and last in the theoretical framework, consists of theories related to special orders. Special orders are included in this study for understanding the dissatisfaction expressed by the manager of business unit two.

3.1 Cost Accounting

3.1.1 Cost Concepts

A cost occurs when a resource is to be given up for the purpose of obtaining goods or services (Blocher, Chen, and Lin, 2002; Horngren et al., 2009; Hendriksen and Van Breda, 1992).

3.1.1.1 Fixed and Variable Costs

Horngren et al. (2009, p.56) define a variable and a fixed cost as following;

A variable cost changes in total in proportion to changes in the related level of total activity or volume.

A fixed cost remains unchanged in total for a given time period, despite wide changes in the related level of total activity or volume.

The definition of a cost depends on the specific cost object and at a specific time, Horngren et al. (2009) further explain that it should not be assumed that a cost is inherently variable or fixed. Labor costs depend on employee contracts, labor unions etc. and this type of cost could be considered to be either variable or fixed.

Andersson (2008) presents essentially the same definitions given by Horngren et al. (2009) but also identifies three different types of fixed and variable costs. Andersson divides variable costs into the categories: proportional, digressive, and progressive. A variable proportional cost increases at the same rate as the volume increases, a digressive cost increases at a slower pace than volume, and a progressive cost increases faster.
than volume. Further, a fixed cost could be *completely solid, semisolid, or operation induced*. A completely solid fixed cost remains the same even if production goes down to zero, but could over the long-term perspective be eliminated. A semisolid fixed cost is completely solid within a certain volume range. Finally an operation-induced fixed cost is similar to a completely fixed cost but disappears with zero production.

### 3.1.1.2 Direct and Indirect Costs

Horngren et al. (2009) describe a *direct cost* as one related to a particular cost object and one that could be traced to this object in a cost-effective way. Labor and raw material used for a specific object could be traced as direct costs. Horngren et al. continue by describing *indirect costs* as related to a cost object but cannot, like direct costs, be traced to a cost object directly. Indirect costs include management, rent, and warehouse cost among other costs that have impact and are necessary for the cost object, but also depend on other objects. When the volume changes, the costs considered direct might change to indirect and what is a direct cost in one situation might be considered an indirect cost in another. Bragg (2005) concur with Horngren et al. and continues by saying that more costs could be recognized as direct as production volume goes up; at high production levels direct costs could include a whole factory.

Bragg mentions three ways of determining whether a cost is direct or indirect: *judgment, reliance on the industrial engineering staff, and the use of statistical analyses*. Judgment is the most frequently used way because it is the least time consuming option and the accountant facing an analysis uses his or her knowledge or internal support to determine whether a cost should be treated as direct or indirect. To rely on employees such as the industrial engineering staff is a precise and true way of determining a cost as direct, but it is also highly cost intensive and therefore not commonly used. A statistical analysis is used when a cost accounting analysis which requires a high degree of precision is needed; a statistical analysis by its nature requires more time and therefore is less frequently used than the judgment method. Horngren et al. (2009) say that more costs could be traced from being indirect to direct as the information technology increases, the use of barcodes is one example of technology that companies use to trace small costs to each of its cost objects. There are however costs that could be traced as direct but are chosen to be treated as indirect because the resources needed for separating direct and indirect costs might exceed the benefits of doing so.
3.1.1.3 **Incremental and Common Costs**

Andersson (2008) describes that *incremental and common costs* appear in situations when an organization needs to know which costs that are related to which products; these costs could be variable or fixed. In a decision making process, incremental costs are those that will arise if accepting an order, and on the other hand, disappear if taking a decision to discontinue an order. Horngren et al. (2009) use the same definition as Andersson and further mention the incremental income as the additional revenue of accepting a new order and the differential revenue as the difference between the options.

Common costs are described by both Andersson and Horngren et al. as costs that are unchanged whether accepting an order or not and further a cost that is shared by two or more users. Andersson indicates that depending on the situation, a cost could be considered incremental or common; the nature of the cost could only be established when the decision situation is elucidated. If there are uncertainties about the effect of a certain cost, it should be treated as a common cost; if a decision concerns a change in volume, an incremental cost could in many cases be referred to as variable. After an organization has determined which costs are incremental and which are common, it is able to calculate the marginal contribution (MC), which is obtained by subtracting the incremental cost from the incremental revenue. The MC contributes to common costs and to profit (Andersson, 2008).

Horngren et al. do however argue that the goal should be to allocate the common costs to the specific users in a reasonable way and mentions two ways of doing so. In the first method, each user should be treated as its own and separate unit in which the weight of the usage should be measured and allocated to that specific unit. The second method includes a ranking system that ranks the user of the common cost depending on who are the most responsible for the specific cost, then using the ranking to further allocate the cost.

3.1.1.4 **Cost Relevance**

A *relevant cost* is according to Horngren et al. (2009) a future expected cost; a relevant cost must hence occur in the future and differ among the alternative courses of action. If the cost does not fulfill these requirements it is to be treated as *irrelevant*. Bragg (2011, p.5) uses a similar definition: “A relevant cost is a cost that relates to a specific man-
Excluding the irrelevant data will, according to Horngren et al. (2009), help the decision maker to focus on the relevant parts in the analysis, to focus on relevant parts will not only make the analysis less confusing, it will also be less time consuming.

The outcome of a decision can be divided into two different categories; qualitative and quantitative relevance. Qualitative refers to information that is difficult to grasp, such as dissatisfaction, morale etc. Quantitative is information that is measurable in numerical terms such, as financial information. The easiness to measure a quantitative outcome compared to a qualitative outcome does, however, not imply a difference in importance (Horngren et al., 2009).

### 3.1.1.5 Summary of Cost Concepts

As seen in this chapter many cost concepts have been introduced. There are many ways of categorizing costs and costs are not seen without a preceding word explaining what type of cost used in each situation, e.g. *fixed, indirect, and incremental*. Categorizing the costs is necessary in order to understand the next section, cost allocation methods. *

*Fixed and variable costs* are two opposites which explain the nature of a cost, if the cost will stay fixed or if it will change in relation to a change in activity or volume. The *direct and indirect costs* tell whether or not the cost could easily be traced to a cost object. A direct cost could in relation to an indirect cost be traced to a cost object in a cost effective way. An *incremental cost* could be either variable or fixed and stand for the additional cost in those cases a new order is accepted. A *common cost* is a cost being shared between two or more users, in those cases the effect of a cost is uncertain it should be treated as common. The final cost concept brought up is the *cost relevance*, in a decision making process a relevant cost is one that would occur in the future and change depending on the alternative courses of action.

### 3.1.2 Cost Allocation

How to allocate costs is an important issue in organizations because centralized services have increased over the years. Costs for facilities, programs, production processes, and services are often shared by multiple products and common costs can be allocated to products by using several methods (Bragg, 2005; Bhimani, Horngren, Datar, and Foster, 2008; Blocher et al., 2002).
Cost allocation has several purposes in organizations; by recognizing cost efficiency when determining product and business unit (BU) costs, top managers can more accurately make effective decisions (Blocher et al., 2002; Bhimani et al., 2008). Horngren et al. (2009) identify performance evaluation of BUs as one possible situation in which cost allocation can be crucial for decision making. Operational result is a summary measure which consists of both revenues and costs. In order to use the operational result measure appropriate in BU performance evaluation, the costs need to be allocated fairly to each BU. Blocher et al. and Bhimani et al. further argue that cost allocation can motivate managers by allowing them control of allocated costs. Cost allocation can be a basis for managers’ incentives in decision making, which help the organization to act consistently with the top management’s goals (Blocher et al., 2002). Another reason for cost allocation is the fairness that can be achieved if there is a clear cause-and-effect relationship for the cost allocations (Blocher et al., 2002; Bhimani et al., 2008). In the following section dual allocation, absorption method, volume- and activity based costing are explained.

3.1.2.1 Dual Allocation
The dual cost- or dual rate method puts variable and fixed costs into two different cost pools, each using a different allocation method (Blocher et al., 2002, Horngren et al, 2009).

Blocher et al. (2002) say costs in the variable cost pool are directly allocated to the business units (BUs) in which the costs are used, while costs in the fixed costs pool that are not easily traced to a BU should be allocated to the BUs in some logical way. A logical way should be on a basis which reflects the BU’s true use of the fixed cost. Estimations of the usage of fixed costs can be made to set proportions of how much each BU should carry or other cost allocation methods such as activity based costing can be used (Blocher et al., 2002).

3.1.2.2 Absorption Method
Andersson (2008) describes one way of distributing costs, absorption costing. In order to recognize how much a product, unit or an order costs, certain steps must be followed. The first step is to recognize what kind of costs are current; costs that are similar to each other could be divided into common groups such as costs for raw material. The second
phase is to recognize cost centers, and costs that are used to process a product. The last phase is to recognize the cost object; as mentioned above this could be a product, unit, or an order. Direct costs are the first to be registered at the cost object, such as raw material; as described previously these costs can be allocated directly. Indirect costs pass through cost centers in which the costs are distributed through a key system. After the distribution of indirect costs through cost centers, total cost allocation occurs which allows the organization to fully understand and calculate the costs for a specific cost object. This is illustrated in figure 1, below.

Figure 1. Illustration of the absorption method (Andersson, 2008).

Organizations that possess large capital investments, in most cases, have large production costs interrelated to those investments. Also, the organizations might find it unsuitable to use only one single key for the distribution process. Figure 1, above, illustrates the absorption method.

In figure 2, the absorption method with several cost centers is illustrated. By adding more cost centers to the absorption method, causality could be increased. A higher causality provides a better cost understanding among all concerned by the cost allocation. An example of a situation in which several cost centers might be appropriate is when allocating indirect costs to products. Suitable cost centers might be ones which the products physically pass through during production. Each cost center then allocates its costs to the different products passing through, based on a key which is relevant for the specific cost center. Deciding which key to use for each cost center can be a difficult task to perform. Weight and time are examples of keys which can be used for allocating costs from cost centers to cost objects.
3.1.2.3 Volume and Activity Based Costing

The volume-based costing system is a traditional costing system; it measures the resources consumed in proportion to the products produced. The system is useful in situations when labor and material are the dominant cost factors and when technology and amount of products are stable and low (Blocher, 2002). Andersson (2008) argues that a volume-based system might be misleading in organizations that produce products in varying volumes. Products with a smaller volume might not be charged with the correct amount of costs and could therefore be seen as more profitable than they actually are. For large volume products, the situation is the opposite and might affect the outcome of a decision making process.

Activity Based Costing (ABC) identifies activities as cost drivers; an activity is the work performed for a specific purpose, such as a product or service. The products and services that are being produced are seen as a result of activities performed within the organization and the activities need resources (Blocher et al., 2002; Horngren et al., 2009). Blocher (2002) indicates that indirect costs should be assigned to cost objects, such as business units or products, after identifying the activities and resources that are needed for production. The costs are then calculated for each product of the cost object, the total cost for production is then calculated by multiplying the number of products produced with its activity cost.

One of the main advantages of using ABC costing is the information management receives which might help them in strategic issues. Kaplan and Cooper (1997) indicate that ABC costing has most impact in large organizations with many products, customers, processes etc. An example is a factory producing products in different volumes, standard and custom-, mature and young products. Bragg (2005) describes ABC costing to be of best use when multiple product lines, different products produced on the same
line, automation, and many machine setups etc. are present. One major disadvantage of using ABC system is the time required when implementing it; a large implementation covering product lines with various products might in many cases require more than a year to implement (Bragg, 2005). Conflicts with the employees might also arise when an organization implements an ABC system because of the complex implantation process. ABC will create new set of data; data which might affect the workload of the accounting department.

3.1.2.4 Summary of Cost Allocation Methods

In order to explain Omega’s way of handling cost accounting, it is necessary to explain several cost allocation methods in order to explain cost accounting in practice. A dual allocation method puts variable and fixed costs into two different cost pools, in which each of the pools use different allocation methods. The absorption method like dual allocation separates costs into different groups. Costs that can be termed as direct are allocated directly at the cost object while indirect costs go through a cost center where the costs are distributed through a key system. A volume-based costing system measures resources consumed in proportion to the products produced; it is useful in a stable environment with products of similar volume. Activity based costing is a costing system that recognizes products and services as results from activities performed; total cost is calculated by multiplying the number of products or services with its activity cost.

3.2 Performance Evaluation

3.2.1 Performance Measures

Performance measurements are part of the planning and control processes in organizations; a performance measure could be described as a tool for measuring efficiency, effectiveness, or quality of an action and can be combined as a performance measurement system (Neely, Gregory, and Platt, 1995). “What you measure is what you get” is according to Merchant and Van der Stede (2007, p.29), a commonly used saying that is important for motivational issues and decision-making. An organization that wants to maximize its firm value often uses different financial performance measures to ensure that its employees create value. Nilsson, Olve, and Parment (2010) state that making a measure visible increases the chances of the measure to be noticed by the employees which it is exposed to. Further Nilsson et al. argue that an employee who is being ex-
posed to a measure that is both visualized and discussed will focus on and try to enhance the results for the specific measure. Merchant and Van der Stede mention accounting-based measures as one alternative and these include operating profit, net income after taxes, return on equity, etc. These are summary measures because the measures are based on more than one performance area and operating profit is one example of a summary measure because it is based on decisions concerning both revenues and costs.

Neely et al. (1995) explain that a performance measure could be used to influence organizational behavior; Merchant and Van der Stede (2009) further describe that it is important that measures are congruent with an organization’s true objective because incongruent measures will motivate employees to take the wrong actions. Wrong actions as a side effect of management control systems are a type of behavioral displacement. It is, however, not realistic to expect that a company should achieve perfect control by using different kind of measures; it is nearly impossible to achieve perfect control because it is almost never cost effective. Instead of seeking perfect control, companies should seek optimal control, meaning control good enough at a reasonable price (Merchant and Van der Stede, 2007).

### 3.2.2 Results Control

Results control is a method that can be used to achieve good control in organizations and to solve potential control problems; it can also help to alleviate potential motivational issues that might occur within an organization. Results control is again a good way to achieve control in many organizations, but for it to be effective Merchant and Van der Stede (2007) mentions three conditions that must be met. First, organizations need to be able to determine the result wanted in order to pass it on to the employees. These results can be profitability, quality, customer satisfaction, etc. The second condition includes the controllability aspect; it refers to the employee’s ability to control the actions that affect the result, the higher controllability the higher effectiveness. The last condition described by Merchant and Van der Stede concerns the organization’s ability to measure the result effectively. A good and effective measure should influence the behavior in the right direction. A good result measure should be precise, objective, timely, and understandable. Precise as in high information value, a quantitative result should if
possible be a precise number instead of one between two extremes. Further, a result measure should be free from bias which could be achieved by having the measuring process done by a person independent from the process. Performance among employees will increase if results control is timeliness which could be done by implementing short-term goals. And last, the employees need to understand the actions which the management holds them accountable for; good communication is needed for it to be achieved. A good results control could as explained solve control problems and hinder motivational issues that might appear in an organization.

3.2.3 Summary of Performance Evaluation

Performance evaluation has its ground in a company’s cost accounting, which is introduced earlier in the theoretical framework. In the performance evaluation section the study has included two topics; performance measures and results control. Performance measures are tools for measuring efficiency, effectiveness and/or quality of actions. It is said that what is measured is what you get, so a company needs to decide what the intentions of its measures are. Only measures congruent with the organizational objectives will motivate employees to take the right decisions and consequently measures which are incongruent with the objectives will motivate employees to take the wrong actions. Organizations cannot realistically achieve perfect control by using performance measures but measures can definitely be used to affect organizational behavior in the right direction. Results control is a method used to achieve good control in organizations but for it to be effective three conditions need to be met. First, organizations need to be able to determine the result wanted. Secondly, the employees need to be able to control the actions affecting the results. Third, an organization needs to be able to measure the results effectively. Further a good results measure that prevents control problems and hinder motivational issues should be precise, objective, timely, and understandable.

3.3 Special Orders

Horngren et al. (2009) use the term one-time special order for those orders that are accepted when there is idle production capacity and that have no long-run implications. Blocher et al. (2002) define a special order as one that occurs when a firm has an unexpected opportunity to sell a service or a product. Further, these orders are infrequent,
come directly from the customer instead of normal distribution channels, and represent a small part of the total business.

In the case of special orders, irrelevant costs are those that will not change depending on acceptance or decline of an order (Horngren et al., 2009; Bragg, 2011; Blocher et al., 2002). Blocher et al. explain that in order to make a decision about whether to accept a special order, the management needs information about relevant costs, revenues, and opportunity costs. Blocher et al. further emphasize the importance of comparing the relevant costs to the selling price. An incorrect analysis of special orders is one in which the total cost is used instead of the relevant one; using the total cost might cause misleading decisions from the management. Strategic issues are other factors that management needs to take into account during these decisions. The opportunity cost should be calculated to enable a proper analysis by the management; the calculations should be drawn from the perspective of a full capacity production. The management could with the full capacity perspective estimate the risk of losing a standard order with a higher profitability (Blocher et al., 2002).

Two potential problems that might occur when analyzing whether a special order should be accepted or not is stressed by Horngren et al. These potential problems are to assume all variable costs being relevant and all fixed costs irrelevant and that unit costs are used directly. A cost that is considered variable might not always be fully variable; in some cases a variable cost increases gradually. An example of a variable cost that increases gradually is the manufacturing cost which takes a big step if a new working shift has to be implemented. Unit costs that are used directly might be misleading because there is a risk that a unit cost includes irrelevant data; if unit costs are used for different output levels, that might have an effect on the outcome. The irrelevant data can for example consist of fixed manufacturing costs that are included in the unit cost. These fixed costs do not change by accepting the special order and should therefore be excluded from the unit cost when taking the special order decision. Horngren et al. emphasize the importance of including a qualitative aspect in acceptance decisions for special orders, e.g. when an organization decides to sell products for the purpose of filling up free capacity, it needs to consider the effect on its regular customers. Important strategic factors which need to be included when the management considers whether to accept or reject a special order are short-term and long-term pricing strategy and the trends
related to variable costs. Blocher et al. further emphasize the importance of not allowing special orders to become normal, and in line with Horngren et al. stress the potential damage of the pricing strategy by mentioning several examples that confirms that argument.
4. THE CASE ORGANIZATION

This section begins with a company introduction that broadly describes Omega and its business. The product costing, as part of cost accounting, in the case company is illustrated by an extensive description of one of Omega’s products. The specific product is sold in, what the director of BU2 calls special orders and the example illustrates all costs related to that product. Omega’s performance evaluation is also described, following product costing, with a focus on how Omega evaluates its three BUs. The final area investigated in Omega is special orders. Special order data are included, together with product costing and performance evaluation, for obtaining a comprehensive picture over the special order area in which dissatisfaction has been expressed from BU2 in Omega.

4.1 Omega – Introduction

Omega is a food producing company that possesses strong brands within its industry. The company mainly sells products to ultimate consumers through domestic supermarkets. Other customers are manufacturers, restaurants, other resellers, companies within the corporate group, and customers in the export market. Omega is fully owned by a decentralized investment company; as a result Omega and other companies within the corporate group are responsible for setting up their own strategies. The vision of the case company is to be recognized by its end-consumers as a company being passionate in what it does. The CFO described Omega as striving for an overriding goal and it has a strategy, not explained in this paper due to secrecy principles, that explains how to achieve the goal and the vision. The strategy spans three years and is hence updated every third year. Further the CFO explains that the strategy has financial targets and that Omega verbally communicates what actions are needed to achieve these financial goals. The actions Omega verbally communicates include brand issues, competence, approaches, and work effectiveness.

Further, the organization is divided into three business units (BUs) based on the customer type they serve. Production facilities and staffs are all shared among the BUs. BU1, BU2, and BU3 are all described further in appendix 1 – interview 1. One part of BU2 handles special orders with the purpose of filling up free production capacity;
these orders are normally sold as large bulks with lower profitability compared to the majority of Omega’s ongoing orders.

4.2 Omega’s Cost Accounting

This section shows which costs are included in Omega’s product calculations and how these are allocated to the different products.

4.2.1 Physical Flow

Figure 3 below was constructed in this study as a simplification of the physical flow for product Z in Omega, the product which corresponds to most sales within BU2’s special orders. It acts as an example how products move through production in general.

The production controller describes how product Z moves through different steps in production from raw food to final product, ready to be delivered to the customer. Four production lines are needed to manufacture product Z and the arrows in Figure 3 illustrate the flow between the production lines and other processes within Omega’s production. Arrows in figure 3 also show where raw food X, ingredients, and packaging material are needed for producing product Z.

Production Line 1, receiving raw food X – This is where the primary raw food X is received and then distributed to different product groups which require raw food X, including production of product group Y.

Production Line 2, processing raw food X – Raw food X is processed in this line to be ready for the construction line which is the third production line. If needed, the food is kept in a temporary warehouse before reaching the third production line.
Production Line 3, *construction* – Ingredients such as herbs and spices are added at this production line and product Z is completed. Depending on the product size being delivered, product Z moves on to different packaging lines.

Production Line 4, *packaging* – Product Z along with some other products sold by BU2 is packaged on this production line; when the products have moved through this line, products are ready for delivery to the customers.

The director of BU2 states that when a sufficiently large amount of product Z is manufactured, Omega books the delivery and sends the products to the customer. Depending on the customer and its ability to keep product Z in a warehouse, different amount of pallets are sent. The number of pallets for each delivery is stated in the original contract for the special order and therefore the freight cost can differ among orders.

4.2.2 Variable Manufacturing Costs

Raw material, packaging material, and direct salaries that are needed for producing product Z are summed up to what Omega call *direct calculated costs*. By then adding electricity, steam, water, warehouse costs, internal logistics, and a calculation mark-up Omega obtains what it calls *variable manufacturing costs*. The last component in product Z’s variable manufacturing costs, the so called calculation mark-up, is used to make up for spoilage and other incalculable costs, in order to make the pre-calculations as close to the final outcome as possible. The production controller argues that each of these costs is calculated for one unit of product Z and the variable manufacturing costs therefore change proportionally with the quantity of products made. When any of the costs changes, the calculation is adjusted to reflect these changes in Omega’s system. The changes are made on a monthly basis and each cost component in the variable manufacturing cost represents the average cost over the last twelve months.

When the calculation of each cost component is built up, the raw material and packaging material are allocated to one unit by measuring how much is used for making one unit and what the purchase price is for the material used. Direct salaries are calculated by measuring how much labor time is normally needed for making one unit and multiplying that number with the labor cost. The cost of electricity, steam, and water that is normally needed for producing one kilogram of the final product is calculated and then
multiplied with the number of kilograms, in order to reflect its part of the products’
costs. The cost for the warehouse and internal logistics are calculated by using the same
principle.

4.2.3 Freight Costs
The actual cost for the freight is included in the customers’ price and the cost is con-
nected to the actual orders delivered during the current month. When the products are
delivered, the amount is distributed down to product level by dividing the monthly cost
with the kilograms delivered of product Z. This method for allocating freight costs to
products results in monthly variations for the freight costs per product because custom-
ers require different amount of product Z in their deliveries.

4.2.4 Media and Sales Promotion Costs
Costs for media and sales promotion are advertising costs which are also allocated to
product Z and these are connected to the actual product group and to the country in
which the products are sold. The cost is then divided down on product level based on
how much weight of each product sold.

4.2.5 Fixed Costs in Production
Production costs which cannot be allocated directly to a specific product is called fixed
costs in production, these costs are distributed to product Z and other products in the
production by using keys. The production controller explains that these costs are not
completely fixed and says that a change in volume might have a marginal impact on the
fixed costs in production.

The fixed production costs which are, at least to some extent, allocated to product Z are
seen in table 1 below.
These costs are controlled and held accountable by the responsible person at each cost center. Some of the costs above span several factories within Omega. Examples of such costs are production management, steam boiler and quality. Based on prior knowledge, the cost center responsible in a first step of the allocation process estimates how large proportions of the cost that should be distributed to the different factories. A cost that only spans one factory is allocated completely to that factory.

When the costs are traced to factories, Omega uses two ways to allocate the costs in production. Most of the fixed production costs are first allocated to the different production lines and then down to the products produced on those lines. When the costs are allocated down to the production lines, the keys used are number of kilograms produced, labor time, production time, and down to one certain production line (static key). The last key is static, which means that pre-set percentages of the cost are allocated to the production lines and these percentages do not change automatically with the use of the production lines. The other keys above are dynamic which means that the cost allocation changes with the cost drivers used. Omega continuously strives to use dynamic keys that are based on information from its enterprise system. The system controller explained that in order to get down from production line to product level in allocating costs, Omega uses number of kilograms produced, labor time, and production time. If a

<table>
<thead>
<tr>
<th>Costs that affect Product Z</th>
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<tbody>
<tr>
<td>Work Shop storage</td>
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<tr>
<td>Environment</td>
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<tr>
<td>Electricity</td>
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<td>Maintenance mechanics</td>
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<td>Quality</td>
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<td>Technics</td>
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<tr>
<td>Maintenance for raw material X's production lines</td>
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<tr>
<td>Cleaning raw material X's production line</td>
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<tr>
<td>Lower production management within product group X</td>
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<tr>
<td>Handling raw material X department</td>
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<tr>
<td>Production office services</td>
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<td>Production manager and related costs</td>
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<tr>
<td>warehouse/storage</td>
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<tr>
<td>Internal logistics/resource planning</td>
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<tr>
<td>Sanitation</td>
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<tr>
<td>Vehicles</td>
</tr>
<tr>
<td>Building maintenance</td>
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<tr>
<td>Steam boiler</td>
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</tbody>
</table>
static key has been used for allocating cost to production lines, the cost driver used for allocating down to product level is always production time.

The other method allocates the costs directly to all products produced it is used for four costs, steam boiler, building maintenance, vehicles, and sanitation, and the cost drivers used for allocating costs down to the specific products directly are net weight and gross weight.

4.2.6 Other Fixed Costs

Omega also allocates other fixed costs, excluding fixed costs in production, to product Z. These are similar to the fixed costs in production in that sense that the costs are allocated to products by using keys. The costs for BU2 sales department are distributed over the products sold through BU2 by partly spreading the cost over all products and partly by using volume sold as cost driver. It happens that BU2 internally uses fixed allocations between departments, product groups and type of sales before allocating down to product level. The costs for BU2 sales department are, so called, BU specific costs.

The following fixed costs differ from the production costs and BU specific costs in that sense that these costs are characterized by being central for the organization and spread out over all products produced. These are, among others; top management, business administration department, information system, personnel department, supply chain management, and logistics for finished goods. The cost drivers used for allocating these costs to the products are sometimes in the form of two steps: in the first step the allocation is based on the number of employee’s per cost center or it is in the form of set percentages to specific product groups or to specific factories, labor time on production lines, production time on production lines; in the second step a cost center specific cost driver is used which is the same type of cost drivers that is used in one step cost allocations. When there is only one step cost allocations, the cost drivers used are the following; equally spread out over all products, gross sales (SEK), set percentages to specific products, set percentages based on how much time that is normally spent on the products based on internal interviews, number of marketing campaigns, quantity sold, variable manufacturing cost for the products sold, number of order rows, and delivered net weight.
4.2.7 Summary of Omega’s Cost Accounting

The physical flow for product Z in Omega visualizes how products move through a production line, and further demonstrates how a cost such as raw material adds to a product. Raw material is part of what Omega call *Variable manufacturing costs* which, argued by the production controller, change proportionally with the quantity of products made. Freight costs are described for those times products are delivered by Omega, further the media and sales promotion costs are connected to the actual product group and to the country in which the products are sold. Omega’s fixed costs are divided into two categories, *fixed costs in production* and *other fixed costs*. *Fixed costs in production* are at least to some extent used in the production process and product Z serves as an example; *other fixed costs* are central for the organization but could not, as the *fixed costs in production*, be recognized as direct to the products.

4.3 Omega’s Performance Evaluation

The Manager of business controlling says that Omega uses marginal contribution (MC) 1, MC2, and MC3 (Appendix, Table 4) to measure the financial performance of each BU. The MC calculations are in detail explained in next paragraph. The manager of business controlling further argues that each BU has the possibility to control the costs within MC1, MC2, and MC3 and also that the costs within MC3 are easy to allocate and are fairly allocated. This is agreed upon by the controller of BU1 and the director of BU2. The manager of business controlling explains that BU managers in cooperation with the top management set predetermined financial goals for MC1, MC2 and MC3. The management of each BU is responsible to reach these goals, which are set after taking previous results and future expectations into consideration. Further, these goals are monetary and the manager of business controlling advocates that these goals are well understood among the BU directors. The goals are followed up continuously throughout the year but are counted at the end of the year. The BUs therefore have continuous monthly meetings during a year with the purpose to follow up the results and decide if extra actions are needed in order to reach the goals set for the whole year.

The MC1 measure consists of net sales minus the variable manufacturing costs and freight out for all products sold by the BU during the period of interest. These costs are allocated down to products as explained in sections 4.2.2 *Variable manufacturing costs*
and 4.2.3 Freight out. In order to reach the next level, MC2, upon which the BUs are evaluated media and sales promotion are included in the performance evaluation. Media and sales promotion are costs for different kind of advertising. These costs are allocated to the BUs in the performance evaluation based on how many products that are sold by the BU during the period of interest, and how much costs for media and sales promotion that are allocated to the products in the cost accounting. How these costs for media and sales promotion are allocated to the products in Omega’s cost accounting is explained in section 4.2.4 Media and sales promotion costs. The third step which the BUs are evaluated upon in Omega is MC3. The MC3 measure is calculated by taking MC2 minus the business unit specific costs. In BU1 and BU2 BU specific costs are their respective sales department and in BU1 there is also a BU specific cost called market and innovation department. After these costs have been allocated to product level in Omega’s cost accounting, in a way which is described in section 4.2.4 Media and Sales Promotion Costs, the allocated cost for the BU in Omega’s performance evaluation corresponds to the number of sold products multiplied with the calculated product costs.

The manager of business controlling explains that the organization as a whole is evaluated on total operating results but it is not the case for each of its BUs. The manager of business controlling explains that the reason for not including fixed costs in production (4.2.5 Fixed Costs in Production) and other fixed costs (4.2.6 Other Fixed Costs) in the performance evaluation of BUs is the uncertainty involved and the lack of possibility to influence the costs. Further explained by the manager of business controlling is that Omega in the future might include the fixed costs in production in the BU performance evaluation, but that Omega need a better cost allocation system in order to realize those ideas.

Even though the manager of business controlling argues that the BUs are not evaluated based on operational result the director of BU2 and the controller of BU1 state that the operational result measure is discussed continuously for evaluating BU performance within Omega. The director of BU2 and the controller of BU1 further say that, in addition to MC1, MC2, and MC3, operational result is used as performance indicators within the organization. The director of BU2 feels that operational result does not reflect the true performance of BU2 because he feels that management of BU2 cannot control several of the cost elements of the operational result measure. Further the director advo-
cates that the operational result measure, if not properly allocated, has a negative motivational effect on the employees within BU2. The controller of BU1 explains that there is a strong focus on MC1, MC2, and MC3 but also mentions that operational result has target figures that is to be met for BU1 on a yearly basis.

4.3.1 Summary Omega’s Performance Evaluation
The BUs within Omega are evaluated upon marginal contribution (MC) 1, MC2, and MC3. The MC goals are financial and set after taking previous results and future expectations into consideration and are followed up continuously but counted at the end of the year. Unlike the unity concerning the MC goals disagreement regarding the fourth financial measure which is the operational result occurs. The manager of business controlling argues that operational result is used upon the organization as a whole, but not to BU level. It is however argued from the BU perspective that the operational result is being discussed as an indicator of performance.

4.4 Omega’s Special Orders
The director of BU2 intends that Omega should have the possibility to reject a special order contract with delivery up to one year. If this is not possible, the order is not special. Omega’s special orders do in some cases, however, contract the same customer year after year with special orders. The director of BU2 estimates that the revenue for special orders represent about two-thirds of BU2’s industrial and export order’s total revenue (Appendix 4, Interview 4 - Table 3). This means that special orders represent approximately 2 percent of Omega’s total revenues during 2010. The director explains that requests for these orders can pop up unexpectedly and infrequently from the customers, but Omega also contacts potential customers to sell its products as special orders. The products sold through special orders are no-name products which mean that there is, according to the manager of BU2, little or no extra work for preserving and developing brands connected to these orders. The special order products are most often characterized by a low profit but on the other hand do not require much development or investments. The director and controller of BU2 say that a rule for special orders is to not accept orders with a negative marginal contribution 1 (MC1). A negative MC1 occurs when the additional costs exceed the additional income (Appendix, Table 4).
5. DISCUSSION

Analytical discussions are held within this section and the discussions are guided by the research questions stated in the introduction section. The areas discussed are cost accounting, financial performance evaluation, and special orders. The discussion section has a purpose of analyzing the empirical data in relation to the theoretical framework presented in the study.

5.1 Cost Accounting

Which costs should be allocated to products and business units (BUs) and which costs should not be allocated at all? These are questions that an organization needs to answer in order to carry out a functional cost allocation and hence a good basis for financial performance evaluation. A good cost accounting system that determines product and BU costs helps top management to make effective decisions (3.1.2 Cost Allocation).

Omega allocates all different type of costs to products. Omega distributes the variable costs to the cost objects, in this case the products, directly. Further, Omega accumulates fixed costs in cost centers using cost drivers, such as weight and volume, to allocate fixed costs to products (4.2 Omega’s Product Costing). Dual allocation (Dual Allocation 3.1.2.1) is used in Omega; Omega’s costs are first divided into two groups, variable and fixed costs. The variable costs are allocated to the products directly while the fixed costs are allocated to products in, what Omega argues is, a logical way. Omega’s method for product costing also has strong similarities with absorption costing (Absorption Method 3.1.2.2) because cost centers are being used. Further, Omega allocates costs using several cost centers in order to best handle the complicated costing process. Some of the elements in variable manufacturing costs (Variable Manufacturing Costs 4.2.2) for products are allocated by measuring how much of certain costs that is needed in order to manufacture one piece of the product. This part of Omega’s product costing can be argued to be influenced by activity based costing (Volume and Activity Based Costing 3.1.2.3) which, if fully implemented, uses this procedure for all activities and products.

Cost accounting can be done in many ways with different purposes and it is important to remember that good cost accounting gives companies possibilities that include, among others, a fair ground for decision making and a basis for performance evaluation. How-
ever, this thesis has a strong focus on financial performance evaluation which has influenced the cost accounting. Below are discussions about how costs can be divided into three categories. The objective for doing this is to have a clear cause-and-effect relationship (3.1.2 Cost Allocation) which provides a good basis for financial performance evaluation.

5.1.1 Non-Allocated Costs
Indirect costs (3.1.1.2 Direct and Indirect Costs) unaffected by any BU management decision should normally not be allocated to product or BU level. This cost would remain the same regardless any decision from the BU management and should therefore be categorized as irrelevant. Practical examples of costs that should not be allocated to any product or BU are top management and information system costs. Top management costs include for example CEO and CFO costs which are completely solid (3.1.1.1 Fixed and Variable costs) and consequently these costs should not be allocated to any BU or product. In Omega, top management costs (4.2.6 Other Fixed Costs) are allocated to both BU and product level in its cost accounting which according to theory is irrelevant, could be confusing, and time consuming (3.1.1.4 Cost Relevance).

5.1.2 Business Unit Costs
Costs that should be allocated to BU level are those that are common and indirect at product level, but direct at BU level (3.1.1.3 Incremental and Common Costs; 3.1.1.2 Direct and Indirect costs). Because BU costs are direct towards the BU these costs would disappear if the BU would be closed. As mentioned earlier, Omega distributes all costs to products which according to theory (3.1.1.4 Cost Relevance) requires a lot of information, is not cost effective, and in many cases irrelevant. One example of such costs is the top management costs which is allocated to product and BU level in Omega. According to section 3.1.2.1 (Dual Allocation) the cost for this allocation process is most likely higher than the benefits obtained from allocating top management costs to BU and product level. A cost that should only be allocated to BU level is BU2 Sales Department because it is common and indirect at product level but direct for BU2 and not used by other BUs.
5.1.3 Product Costing
Costs that should be allocated to product level are those that could be determined to be direct (3.1.1.2 Direct and Indirect Costs) to specific products. The direct cost could be either fixed or variable, but needs to be easily traced to the product. Raw material is in most cases a direct variable cost and labor is often a direct fixed cost. Raw material and packaging materials used for production of product Z are direct variable costs (4.2.2 Variable Manufacturing Costs) which are allocated in line with earlier stated theory (3.1.1.2 Direct and Indirect Costs). By using the absorption method (Absorption Method 3.1.2.2), Omega allocates indirect costs down to products. It is possible to allocate a large amount of indirect costs to products, but it would most likely not be cost effective. The cost of supply chain management in Omega is common for all products and the benefit of allocating this cost to product level can hardly exceed the resources needed for doing so (3.1.1.2 Direct and indirect costs). Supply chain management cost and similar costs should therefore, due to a cost benefit effect, not be allocated at all.

5.1.4 Summary of Cost Accounting
Costs within a food manufacturing company that consists of several BUs can in the cost accounting system be divided into three different categories: non-allocated, BU, and product costs. The non-allocated costs should remain to organizational level while BU costs should be allocated to BU level, finally product costs should be allocated to product level (5.1 Cost Accounting). The strongest influence for the outcome of the discussion has been the controllability aspect; it is of utmost importance that someone that are being held responsible for a cost are also able to control it. Another aspect that has been taken into consideration is whether the benefits of allocating a cost exceed the costs for doing so (Merchant and Van der Stede, 2007). One should remember that this study has focused on cost accounting serving as a basis for financial performance evaluation of BUs and this allocation method might not be suitable for cost accounting with other intentions.

5.2 Financial Performance Evaluation
As discussed in the previous section, a well-designed cost accounting system can serve as a good basis for financial performance evaluation. A well designed performance evaluation system increases the company’s control and makes the actions and behaviors
congruent with the organizational goals, and the statement “What you measure is what you get” (Merchant and Van der Stede 2007, p.29) explains the importance of measuring the right things (3.2.1 Performance Measures).

After investigating Omega’s way of doing performance evaluation (4.4 Omega’s Performance Evaluation) it has become evident that there are some difficulties in choosing what measures that should be included. Further Omega has difficulties in deciding how these measures should be constructed. MC1, MC2 and MC3 are agreed upon, from both top management and BU level, to represent performance in a correct way. A measure in which difficulties have been observed is operational result; at BU level it is perceived that it is an indicator which the BUs are evaluated upon while top management argues that operational result is not used for BU performance evaluation.

MC1, MC2, and MC3 are, when comparing with 3.2.2 Results Control, efficient measures because the measures objectively present specific numbers to which the BU managers easily can relate. Further the MC measures are up-to-date because they are followed up continuously for the latest month and counted on yearly bases. The BUs have influence to fully affect each of the elements within MC1, MC2, and MC3 (4.4 Omega’s Performance Evaluation) and it could therefore be argued that Omega has taken the controllability aspect into consideration when constructing MC1, MC2, and MC3. The possibility to control all elements in the measures on which a BU is evaluated is a fundamental criterion when adapting results control (3.2.2 Results Control).

The fourth financial performance indicator, in which disagreements regarding its use exist, is the operating result. Even if the manager of business controlling argues that operational result is not being used for BU performance evaluation in Omega, the measure is calculated and seen as used for BU1 and BU2. Due to the fact that the operating result measure is measured and discussed within BU1 and BU2, this means according to Nilsson et al. (2010) that BU1 and BU2 probably will try to enhance the outcome for operational result. The operational result measure includes costs that are indirect in relation to the specific BUs and products within Omega (4.2.6 Other Fixed Costs). The most crucial criterion, controllability, for using results control is, however, not met for this measure. The risk of including a measure that lacks controllability is that it might influence employee behavior and motivation in the wrong direction (3.2.2 Results Control).
With lack of controllability comes the understandable aspect; it might be hard for the employees to understand what they are being held accountable for if they are not able to influence it.

5.2.1 Summary Financial Performance Evaluation

The marginal contribution measures being used in Omega for performance evaluation purposes are efficient because the measure present up-to-date specific numbers which the managers of each BU fully can influence. The operational result however lacks in the controllability aspect and is therefore not suitable as a performance indicator. Disagreement concerning the operational results importance occurs between the BU and the top management. Regardless the disagreement concerning the operational result, the measure is calculated and displayed for the BU which has effect, intended or not, on the BUs.

5.3 Special Orders

In order to know if an order should be treated as special, a first step is to categorize whether the order is special or not. What Omega calls a special order is, when compared to theory in section 3.3 Special orders, similar to existing definitions of a special order. Omega’s special orders are accepted when production is idle and opportunities to fill up this capacity appear (4.1 Omega – Introduction). Further these orders are infrequent, can be canceled at least on a yearly basis, and are not meant to have long-time implications. Because special orders within Omega do not follow the standard procedure for incoming orders, before BU2 accepts a special order, managers calculate budgeted future sales and potential incoming standard orders. When calculating potential incoming standard orders, Omega wants to prevent special orders from taking capacity from standard orders, orders Omega otherwise might need to reject (4.4 Omega’s Special Orders). Special orders should only represent a small part of the total business in order to be categorized as special (3.3 Special Orders). What is a small part can be hard to define and companies need to subjectively reflect over how large the special orders are in relation to the total business. A thorough search did not reveal one single measure that completely reflects this relation; instead several indicators are needed. One indicator is sales revenue and in Omega the sales revenue for special orders represents 2.3 percent of the total sales revenue of the company (4.4 Omega’s Special Orders), but as stated
earlier more perspectives need to be considered. One condition, in section 3.3 Special orders, used to categorize special orders, can be argued of not being fulfilled by Omega’s orders. The condition is that the orders should not become normal and one can argue that Omega’s special orders become normal when contracting the same customer year after year with special orders (4.4 Omega’s Special Orders). As mentioned earlier, the management should avoid these orders to become normal, but it could be argued what becoming normal really means (3.3 Special Orders). Due to these arguments Omega’s special orders could be claimed to be special, but one should remember that this is a subjective matter.

5.3.1 Acceptance Criteria for Special Orders

If an order is categorized as special, it should be treated differently from standard orders in the decision of accepting the order or not (3.3 Special Orders). When Omega has spare capacity in certain machines, BU2 accepts orders with the purpose of filling up this capacity with the primary requirement that each order covers its own costs, the costs within marginal contribution 1 (MC1, Appendix - Table 4). These costs are discounts, freight costs, and variable manufacturing costs, the different elements in variable manufacturing costs are presented in table 2 below. Most of these costs can be categorized as relevant costs because they arise only if the order is accepted (3.1.1.4 Cost Relevance).

Some costs in Omega’s variable manufacturing cost are, however, not relevant for the acceptance decision of special orders, because the costs can be categorized as irrelevant. The costs which can be considered irrelevant for the special order acceptance decision is written in red numbers in table 2 below; these are direct salaries, warehouse, and internal logistics costs. Based on the definitions in section 3.1.1.2 (Direct and Indirect Costs), direct salaries, warehouse, and internal logistics costs are direct costs because they are related to special orders and can be traced to special orders in a cost-effective way. Additionally these costs are fixed, according to theory in section 3.1.1.1 (Fixed and Variable Costs), because the costs would most likely exist and be the same whether or not a special order is accepted (4.4 Omega’s Special Orders). According to theory above, direct fixed costs are irrelevant for the decision of accepting a special order or not, and should therefore be excluded from this type of calculations.
By excluding direct salaries, warehouse, and internal logistics cost in the example above, it would lower the calculated costs within MC1 by 9.8 percent based on calculations and income statement for product Z. This 9.8 percent is calculated for MC1 and hence not only for the variable manufacturing costs in table 2 above. As seen by these calculations, Omega includes more costs than is suggested by theory above for special order calculations. It should however be mentioned that large organizations such as Omega could, according to the manager of business controlling, cut down on direct salary and warehouse costs to some extent. Temporary employee costs is not completely fixed and in Omega’s case the warehouse can be used for products currently on external storage if not receiving the special order contract. Based on these arguments the manager of business controlling argues that the 9.8 percent will probably to some extent be lower than calculated.

### 5.3.2 Performance Evaluation Implications of Special Orders

The director of BU2 in Omega explained that Omega evaluates its BUs using operational result (4.4 Omega’s Performance Evaluation), which is an accounting-based measure and a summary measure (3.2.1 Performance Measures). As stated earlier, special orders belong to BU2 in Omega and are consequently part of Omega’s total result performance evaluation, which implies that Omega makes no difference in evaluating special and ongoing orders. Evaluating these on the same basis is in line with theory (3.2.1 Performance Measures), and by making a difference between special and ongoing orders...
when evaluating creates a risk of motivating employees to take wrong actions. Wrong actions in this context, are actions that contradicts the companies true objectives. If special orders would be evaluated differently from a standard order in Omega, there lies a risk of motivating employees to accept special orders rather than looking for standard orders.

### 5.3.3 Summary of Special Orders
After discussing special orders, it has become clear that Omega’s special orders need to be subjectively defined in order to decide whether the orders are special or not. When deciding whether to accept these orders or not, search has revealed that Omega probably includes too many costs in its calculations for acceptance of special orders. This does however not mean that special orders are heavily mistreated by Omega because the acceptance criteria do not differ so much from what is suggested by theory above. When evaluating performance of special orders, it should be on the same basis as standard orders, this in order to keep the evaluation in line with the main objectives of a company and this is something which Omega emphasizes.

### 5.4 Symptom versus Problem
In many cases, what first seems to be the problem turns out to be a symptom of a problem and not the problem per se. It is important to recognize the source of the symptoms and deal with the real problem, otherwise symptoms will continue to stem from the source (Hirsch, 2006; Stefan, 2008).

An issue in Omega was expressed by the manager and controller of BU2 and concerned unfair treatment of special orders. The manager of BU2 argued that the unfair treatment was grounded in Omega’s product costing which affects the performance evaluation of special orders. At first, the product costing seemed to be the problem in Omega. But, after researching it become evident that product costing was only a symptom of a problem and not the problem per se. The research revealed that the issue did not belong to the special order segment but to the cost accounting and performance evaluation system in Omega. Hence it has been proved that the original issue in BU2 is grounded in an organizational wide issue: Omega’s cost accounting.
6. CONCLUSION

*What first seemed to be an apple turned out to be a pear...*

After the discussion concerning cost accounting, financial performance evaluation and special orders it is time to go back to answer the study questions which have been used as guidelines throughout the whole study.

- How can cost accounting be done within an organization in order to serve as a ground for financial performance evaluation?

- Why is business unit two (BU2) dissatisfied with the present product costing in Omega, could the dissatisfaction be resolved and if so, how?

In the beginning this study focused on observing cost accounting in Omega in order to understand why the manager of BU2 believed his BU was unfairly treated. The manager of BU2 argued that the unfair treatment was grounded in Omega’s product costing of special orders used for performance evaluation. Product costing was therefore addressed as the main issue to deal with first, and product Z was used to illustrate the product costing in Omega. This research went on and Omega’s performance evaluation for special orders was scrutinized and analyzed while the understanding of product costing increased. As the process evolved it become evident that the issue did not belong to the specific performance evaluation of special orders, instead the issue seemed to lie in the cost accounting and performance evaluation used across the whole organization. The situation could be described as what first seemed to be a problem in Omega later proved to be a symptom of a larger and more fundamental issue.

The cost accounting system in Omega visualizes operational result for each BU, the symptom of this action is the fact that the BUs perceive themselves to be evaluated upon this result, intended or not. In order to eliminate the risk for the BUs to feel evaluated based upon operational result is, according to this study, simply to stop visualizing the operational result. Further, if Omega would stop visualizing the BU’s operational result it would lower the dissatisfaction within BU2 to a high degree. The operational result which might be needed for other purposes in Omega should as argued not be visualized, and therefore not be used for performance evaluation purposes.
This case study has shown that cost accounting can be a crucial tool for a food manufacturing company which has more than one BU and many common costs for the BUs. It has been shown that cost accounting needs to be constructed carefully in order to serve organizational objectives. This research has revealed that all costs within an organization like Omega can be divided into three categories in order to meet the controllability and relevance criteria. The categories are non-allocated costs, BU costs, and product costs. Treating costs differently based upon characteristics enables organizations to develop a cost accounting system upon which a well-functioning financial performance evaluation system can be formed. The financial performance evaluation system is well-functioning because it only includes costs which the BUs can affect. Ultimately, a well-functioning financial performance evaluation system enhances motivation and commitment in BUs as well as it gives the top management a correct performance indicator.

6.1 Limitations
This study has focused on cost accounting serving as basis for financial performance evaluation; the allocation method presented in this study might not be suitable for cost accounting with other intentions. Whether the allocation method in this study suits other purposes or not has not been investigated; this is a limitation that constrains the usage of the findings presented. Further, the choice of investigating a single case study restricts the results from this study to be generalized.

6.2 Further studies
- This case study can serve as a good ground for other case studies which investigates cost accounting and performance evaluations in other industries and organizations. This case study is a research project and hence designed so that it can be useful for further studies.
- Business unit two’s management and the top management have been the main sources in Omega when collecting empirical data for this case study. Investigating all three business units in Omega would give a better understanding of how different parts of the case organization is affected by today’s cost accounting and financial performance evaluation system.
List of references


Appendices

Appendix 1 – Interview 1

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<th>Interviewers, role in case study:</th>
<th>David Axelsson and Marcus Fogelkvist, authors</th>
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<tr>
<td>Interviewee’s at Omega:</td>
<td>Chief Financial Officer and Manager Business Controlling</td>
</tr>
<tr>
<td>Date</td>
<td>24.01.2011 and 26.01.2011</td>
</tr>
<tr>
<td>Summary verified:</td>
<td>2011-03-11 by Manager Business Controlling</td>
</tr>
</tbody>
</table>

The chief financial officer (CFO) and the manager of business controlling explain that Omega consists of three business units (BUs) serving different types of customers (Appendix 4, Interview 4 - Table 3). Omega has recently clearer distinguished the BUs from each other, to ease a comparative process of the operational result. The incomes as well as cost of goods sold are easily allocated to the right BU because this information is available within the enterprise system. Fixed costs are however not as simple to allocate to the BUs and therefore needs more attention. Besides the breakdown into BUs, Omega also allocate costs on its factories, product groups, single products, etc. When the distribution of fixed costs is done, the management is able to use and analyze the numbers in a preferable way such as; factory, product group, product, etc.

Omega has divided its income statement into different parts, costs are subtracted from the sales in four steps. At each step, certain costs are subtracted and the amount of money left is called marginal contribution (MC, Appendix 4, Interview 4 – Table 3). After the first costs are subtracted, the amount left is MC1, and then other costs are subtracted down to MC2, MC3, and finally MC4. When MC4 has been calculated, the only cost that is left to be covered is depreciation. When these are subtracted from the incomes, Omega’s operational result is shown. The different posts on the income statement are presented in appendix, table 4.

The CFO and manager of business controlling argue that Omega has good control over MC1 and MC2, which Omega categorize as the amount left after subtracting variable costs and advertising. These, so called, variable costs are distributed automatically to each BU from Omega’s enterprise system. Since 2011, Omega includes MC3 for BU1 and BU2. The costs that are subtracted when calculating MC3 consist of fixed costs.
which are specific for the BUs. These are for BU1 costs for the marketing and sales force and for BU2 costs for the sales force wages. The manager of business controlling explains that these costs are fixed and consists of wages, education, business trips, conferences etc. Further he explains that the distribution of fixed costs remains the same as earlier but have now been elevated in order to achieve a more relevant MC3 level that each BU feel they could affect and therefore feel commitment to.

The rest of the costs are categorized as fixed costs and these are distributed to the BUs by using various keys. The CFO and manager of business controlling are uncertain about how well these keys are actually giving a true and fair distribution of the costs summing down to MC4.

The manager of business controlling argues that Omega are distributing costs in the best possible way today and strive for having as fair keys as possible. The aim with these keys is to be able to analyze results in different levels and the CFO means that the distribution of fixed costs is more or less a question of moving money within the company. Both the CFO and the manager of business controlling argue that it is a number of advantages to have a fair distribution;

- To know if Omega should accept special orders and to be able to monitor these orders.
- To be able to monitor each BUs performance, accurate and fair.
- To obtain a good basis for decision-making, in strategic decisions.
- To lower the risk for sub-optimization.

When discussing the special orders which are sold by BU2 - industry department, the CFO mentions that those orders sometimes shows a negative result when carrying fixed costs from the distribution.

**Appendix 2 – Interview 2**

<table>
<thead>
<tr>
<th>Interviewers role in case study:</th>
<th>David Axelsson and Marcus Fogelkvist, authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee at Omega:</td>
<td>System Controller</td>
</tr>
<tr>
<td>Date:</td>
<td>24.01.2011 and 25.01.2011</td>
</tr>
<tr>
<td>Summary verified:</td>
<td>2011-03-14 by System Controller</td>
</tr>
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To start with, the system controller defines common cost concepts and how these concepts are used in Omega. Some costs are neither fixed nor variable but instead half fixed - half variable. Salaries in production are one example; depending on the specific situation these costs are treated either as variable or fixed. When an employee produces a product, the salary is distributed directly to this product. If no production takes place, the salary is instead treated as a fixed cost and put under production (Appendix – Table 4). Each manufacturing order follows a report system in which each and every cost is being located and reported into the enterprise system. The system controller is satisfied with the enterprise system and it is used among additional information systems including; business intelligence and salary administration.

During the interview, the system controller goes through Omega’s model for internal reporting. It includes various keys for cost distribution and the system controller is satisfied with most of the keys. Indirect costs are in most cases equally spread out over all products in Omega and distributed over products based on the amount of gross sales.

For personnel management costs interviews have been conducted with the responsible person at each cost center to understand which activities are responsible for the personnel management costs. This principle is used for most salary distribution within Omega which means that estimations are used instead of mathematical calculations.

When the cost is distributed down from the production line to each product, it is done on the basis of weight, labor time, production time, or on a combination of these three. Today, it is most common to use weight or a combination of several cost drivers in Omega. In order to get rid of the task of continuous updates of percentages for various activities it is important that the keys are dynamic. An product that has been troublesome and requires a lot of labor time will be charged of the fixed costs based upon the dynamic key labor time. It is however in extreme cases possible that some keys do not need to be dynamic, one example mentioned is a specific quality intensive product group; in that case Omega knows that the quality department spends most of its time on this product group and therefore 60% of its salaries is distributed to that group directly.

The dynamic keys are considered to work well but raise the question if some products at some points should be treated differently. The issue has been discussed in the case when the industry department within BU2 accepts a special order. The system controller says
that it is not easy to give these orders special treatment, but it is possible. A prospective problem by treating products within special orders differently is that it has to be remembered that this specific product have been treated differently.

Another question that the system controller believes is important to reflect over if special orders should get special treatment is how to decide if an order should be categorized as special or not. What should happen in cases where a one year special order is resigned over additional one year periods several times, or if it turns into subcontracting? Should all orders be treated in the same way? If special orders are to be treated differently it is important to develop a standard solution for these orders. This is necessary to avoid discussions each time special orders appear. Today’s distribution causes a poor operational result within the industry department but its operations is anyway appreciated within Omega because their orders ease the production planning process for the whole organization.

Appendix 3 – Interview 3

<table>
<thead>
<tr>
<th>Interviewers, role in case study:</th>
<th>David Axelsson and Marcus Fogelkvist, authors</th>
</tr>
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<tr>
<td>Interviewee’s at Omega:</td>
<td>Production Controller in factory X and Manager Business Controlling</td>
</tr>
<tr>
<td>Date</td>
<td>25.01.2011</td>
</tr>
<tr>
<td>Summary verified:</td>
<td>2011-03-11 by Manager Business Controlling</td>
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The production controller and manager of business controlling described which keys that are used for distributing the *fixed costs in production*, related to factory X. These are categorized under *production* in appendix, table 4 and represented a substantial part of their fixed costs in 2010.

The keys used in each cost center are because of harvest seasons built upon a system where the last twelve months are accumulated and analyzed each month. The production controller argues that this system also decreases the effect of extraordinary happenings; such as machine error. Omega uses different kind of keys for distributing its fixed costs on the production lines. The keys used today are built upon a number of cost drivers; production time, labor time, number of products produced, and produced weight. The choice of cost drivers is based on what type of cost center that is involved. Labor
time is for example used for cost centers that are strongly related to personnel issues while production time is the cost driver for technically related cost centers.

The first thing that is done in order to distribute the fixed costs is to interview the responsible person for each cost center. The information is then used for estimating how much time that is spent on the different BUs that each cost center works with. The percentage received from this estimation is a first step in the cost calculations. If the responsible person for the cost center cannot see that it is a specific difference between the different BUs, then the costs are distributed on an appropriate key directly. Most often, however, there is a need for these calculations because the production is not homogeneous; different BUs require different amount of resources. These estimations are reviewed each year, unless something extraordinary happens. If a cost center only includes one BU there is no need for any interview and the dynamic key can be used directly.

Most of the keys used are dynamic and the production controller believes this is important because a dynamic key will adapt to the situation. Alternatively the key could be set to a specific percentage that would better reflect machine errors and other important cost drivers that is not available from the enterprise system. That would however require the responsible person at each cost-center to change the numbers each time something changes which would, according to the product controller, be very time-consuming. Omega should only use manually set percentages in large and very significant cost centers where the changes are small over time and where the chosen percentages are strongly related to the operations.

The production controller explains that the calculations used are reviewed each year by the system controller at Omega. If the system controller finds any number or procedure that might be irrelevant or wrong, a notice is made to alert this for the production controller which is then responsible for changing the number or procedure. These updates of the keys and calculations are a way of obtaining an up to date cost control.

The production controller mentions that Omega has used today’s system for distributing fixed costs for approximately ten years. Further he argues that the system which includes investigating each cost center and selecting a cost driver for it is a good solution
for Omega. On the other hand, he is aware that the system is not completely fair but it is the best possible solution today.

When discussing acceptance of a special order, Omega’s manager of business controlling speculates that the fixed costs will probably increase to some extent but not proportional to the additional quantity. Examples of additional fixed costs that are increased by accepting special orders can be more production leaders, maintenance and cleaning. The production controller argues that it is important to understand which costs that are fixed, semi-variable and variable when deciding to take a special order or not. He argues that the responsible person at each cost center best knows what extra costs that will be incurred by producing a larger quantity. Based on these facts, he believes that the special orders should help carrying some part of the fixed costs. Another aspect that he thinks should be considered in these cases is that Omega has the possibility to increase the production time on several lines by for example adding night shifts for workers. The costs are like a staircase which increases stepwise and that enables the industry sales team to be flexible when selling out free capacity, but it is a complex procedure. The production controller further states that a special solution could be possible for special orders but he is worried concerning about what should be defined as a special order and not. A prospective problem with a special system for these orders could possibly lead to a focus on finding special orders rather than more profitable ongoing orders. The manager of business controlling agree in this discussion and stresses the importance of evaluating the organization as whole.

The manager of business controlling said that when entering the new clearer BU-structure the different business units will be evaluated on the basis of MC3 instead of on the basis of operational result. The BUs should then try to reach individual preset goals but it is not the top management’s attention to have a lower control over the BUs. He states that the operational result is measured in the best possible way but it is not sufficiently good for Omega to use it for evaluating all BUs based on this. The manager of business controlling argues that a new solution for distributing fixed costs must be dynamic and at the same time applicable in a general way in Omega. It must be possible to use it rationally in order avoid a too time-consuming system.
Appendix 4 – Interview 4

<table>
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<th>Interviewers’ role in case study:</th>
<th>David Axelsson and Marcus Fogelkvist, authors</th>
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<td>Interviewee’s at Omega:</td>
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The director of BU2 explains how the company is divided into different parts. The first part is focusing towards the consumer market in Sweden and it is called BU1, the second part is called BU2 and it work towards both the public sector and private companies in Sweden. Omega’s export and domestic industry department are also included in BU2. Except from BU1 and BU2, Omega also has a BU that only make sales within the corporate group. This part is categorized as BU3 and all three BUs are summarized in table 3.

Table 3. Omega’s three Business Units.

<table>
<thead>
<tr>
<th>BU</th>
<th>Customer types</th>
<th>Main order types</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU1</td>
<td>Retailers (consumer market)</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>BU2</td>
<td>Retailers (public sector and private companies), industrial orders, and export.</td>
<td>Special and ongoing</td>
<td>Often sold and packaged in big bulks.</td>
</tr>
<tr>
<td>BU3</td>
<td>Companies within the corporate group.</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>

The industrial department in BU2 sells refined raw products and final products to other companies that use these in their own products or as final products, sold under the customers own brands. These sales are made almost entirely to customers outside the corporate group. The export department sells products both under customers’ brand names but also under Omega’s own brand names. Industry- and export sales are most often only made if Omega has free capacity in the production and therefore these two are similar in that perspective.

The director of BU2 believes that it is very important to clearly separate the BUs because the BUs require different amount of resources. He means that BU1, which work toward the Swedish consumer market, require most resources because they have to be very active in preserving and building Omega’s brand name. He also argues that it is important to separate the different parts within BU2. An example is given where the fi-
nal consumer eats Omega’s food that is sold through the public sector and private companies. In this case the final consumer does not know anything about the product brand or which company that has originally produced the food. Because of this lack of information to the final consumer the director of BU2 thinks that the branding is of less importance for BU2 compared to BU1. The director also believes that the industry department does not have any brand responsibility because these products are sold under brand names of other companies. Concerning the export department, it has less brand responsibility compared to BU1 because those products are mostly sold under brand names belonging to other companies. However, some products sold from the export department is sold under Omega’s own brand names and the director argues that those products requires more brand responsibility. The director estimates that about 85 percent of the industry- and export departments total sales are made under other companies’ brands.

The controller of BU2 describes that Omega’s industry orders normally are in the form of large quantities sent in large packages to the customers. This result in a lot of costs to carry for these orders because the fixed costs are often distributed based on the number of kilograms produced. These costs have a large impact on the operational result for the industry, the export department and in the end for the entire BU2.

The management in BU2 set the prices of its products and the marginal contribution (MC) can vary a lot depending on how the situation is at that moment. A rule is that Omega should not accept orders with a negative MC for special orders. The MC on these orders is often lower than orders sold by BU1.

The special order contracts are often sold to the same customers over and over again but each contract is maximum one year long. The director emphasizes the importance of spreading the risk of these orders by mixing spot-orders with contracts varying between three, six, and twelve months. Some specific products have to be contracted over a one year period of time because the raw product only can be bought under certain periods during the year. When deciding to accept a special order or not it is important to foresee the available capacity in production by looking at the budgeted sales. It is not that important whether the orders are one-time orders or not as long as Omega can reject new orders when there is no need to fill up free capacity.
The director says that it is important to take Omega’s employees into consideration. Omega wants to be a serious and long-term employer and fill up free capacity rather than terminate a lot of employees one year and hire a lot of employees the next. The controller argues that without BU2’s special orders Omega as organization would suffer substantially.

The director argues that by producing goods in small packages, such as BU1 does, it requires more administration generated from every part of the business linked to the specific product. Among these parts of the business it also requires, purchase from the supplier, receiving goods, unloading trucks, putting the goods in the warehouse, handle the warehouse, generate orders and keep track of these actions. This extra administration is not seen as a variable cost but instead as fixed production costs and it is therefore distributed on the different BUs based on the keys used.

Beside this, the central information department within Omega communicates entirely by using the Swedish language. This means, according to the director of BU2, that BU2 have to work a lot with communication in the export department. When sending out press releases and other information from Omega, BU2 feel lack of support from the central information department. When it comes to the costs of Omega’s information department the controller of BU2 say that this department is of minor importance because it is a relatively small cost.

Some machines are more cost-effective if running 24 hours per day over five days per week, due to high stop and start costs. These machines are highly automated and filling up free capacity on those are important. Because of this reason the industry part mostly accept special orders for filling up this capacity. On a yearly basis the a goal is set for how many hours a machine should be running, based on this BU2 knows how much free capacity they should try to fill up with special orders.

The industry and export part of BU2 stands for about thirteen percent of the total volume sold in Omega. This is however not equally distributed over the different products within Omega but instead it depends on where the free capacity exists and what incentive it is to fill up this capacity. Generally the director and controller of BU2 states that is mainly three product groups that is sold from the industry and export part.
Some of the raw products being used in Omega’s production are not good enough for selling to the consumer market, but good enough to sell in big bulks by the industry department. The director wants this to be taken into consideration instead of the system used now where weight is mostly used.

The director of BU2 believes that it is important to find the areas where there are synergies between the different parts of the organization and the controller of BU2 wants to see a fairer allocation of the fixed costs. The director believes that BU1’s profitability is too high in the EBITDA measure due to the fact that the industry and export department absorbs a lot of the consumer divisions fixed costs. This has led to a poor operational result for BU2 each year and the director of BU2 means that there is a motivational effect that plays an important role in this case. The employees can be unmotivated to produce when they experience a negative operational result even though the employees put down a huge effort in doing things well. Even if BU2 absorbs a lot of BU1’s fixed costs the controller of BU2 says that some fixed costs are added by taking the special orders e.g. maintenance. Overall, the director and controller of BU2 thinks that the way that the fixed costs are distributed must reflect the relationships described above and not be distributed in the way it is today. The director of BU2 argues that the distribution of fixed costs in Omega is not adapted for the operations made in the industry and export departments. The controller says that the industry and export department have not been treated in a fair way from a historical perspective.
Tables

Table 4. Income statement structure in Omega.

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<td>(Activity discounts)</td>
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<td>(Special discount activities for consumers)</td>
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<td>Net sales</td>
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<td>(Sales Promotion)</td>
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<td>(BU1 sales department) Part of marginal contribution 3 for BU1</td>
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<td>(BU2 sales department) Part of marginal contribution 3 for BU2</td>
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<td><strong>Operational result</strong></td>
</tr>
</tbody>
</table>