The Affect of Transfer Pricing on Management Decisions in Vertically Integrated Organisations

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I certify that except as noted above the report is my own work and all references used are accurately reported in footnotes.

Signed:

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ABSTRACT

The study evaluates the impact of transfer pricing system on managers in vertically integrated organisations. The study is based on a single case research of BP Southern Africa’s transfer pricing systems and how the organisation manages the system. The study shows that transfer pricing systems and goal congruency are affected by the organisational structure and strategy, the performance measurement of managers and their business units, and the incentives used. It is found that goal congruency cannot be achieved if the three factors are not implemented simultaneously. A further study is suggested.

KEYWORDS: Transfer pricing, incentive schemes, vertical integration, management control systems
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1 Introduction

Transfer pricing is used in most organisations to value the transfer of goods and services from one business unit to the next. The transfer price therefore becomes a cost for the business unit acquiring the goods, and revenue for the business unit selling the goods. The transfer pricing therefore has a direct impact on the profits of a business unit. Profits are generally used as a measure of performance; therefore the transfer price becomes a lever to manipulate profits of a business unit. This creates competition between business units, and creates a situation for agency problems. Business unit managers will focus on improving the profits of their business unit, and this could be to the detriment of the organisation as a whole.

Vertically integrated organisations are strategically assembled in order to exploit the benefits of economies of scale. When organisations are vertically integrated there is a dependency between business units. Business units are therefore expected to work in a collaborative manner. Transfer pricing therefore plays a very important role in measuring the performance of the business unit and also influencing management behaviour. The problem is that the business units are measured on their own performance, not that of the organisation, this encourages competition. The competition can be at the expense of the collaboration of the business units. This occurs when transfer pricing can be manipulated and results in decision making that positively affects business units and not the organisation as a whole.

The purpose of this study is to determine how this problem is handled in theory and compare that to what occurs in organisations. The study will focus on a vertically integrated organisation which is made up of a production business unit and a marketing business unit.
The study is limited to a single organisation in the oil industry. The organisation that will be used to gather data is BP Southern Africa. Interviews will be conducted to gather data from the relevant individuals in the affected business units.

The study will be laid out in five chapters. The first chapter is a literature review. This chapter will be divided into three subsections, the first section will discuss the impacts of organisational structure and strategy on transfer pricing. The second subsection will discuss the performance management of business units. The third section will discuss the agency problem and how transfer pricing attempts to solve this problem. The third section will also discuss the agency theory effect of transfer pricing. The second chapter will be the research design and methodology; this section will detail the design of the research. The third chapter will give a description of the case being studied. This will be followed by the results and discussions.
2 Literature review

Transfer price is the value associated with goods or services that are transferred from one business unit to the next. A transfer pricing system is a mechanism for transferring goods and services from one business unit to another. According to Vally (1998) and Anthony and Govindarajan (1998) the main purpose of transfer pricing is to accomplish the following:

- To provide business units with relevant information required to determine the optimum trade off between company costs and revenue
- To induce goal congruency in an organisation
- To offer a tool to measure economic performance of business units
- To promote divisional autonomy

According to Drury (2000) it is very unlikely that a single transfer price will perfectly serve these objectives. These objectives are conflicting at times (Kaplan and Atkinson, 1998). Kaplan and Atkinson (1998) suggest that when managers are driven to manipulate performance, it comes at the expense of decision making. If divisional managers are expected to maximise their divisional profits, it may cause the managers to take decisions that may cause an overall decline in the profits of the organisation as a whole. The transfer price that is selected should ensure that the business units’ managers make decisions that will align with the objectives of the organisation as a whole.

Transfer pricing objectives can however be achieved with the use of transfer pricing. This can be achieved if the following conditions are met (Anthony and Govindarajan, 1998);
• Business unit managers must be competent and they must be interested in both the long term and the short term performance of the business units they manage.

• The business unit managers must consider transfer prices to be just and fair, especially since they have a direct impact on the profits of their business units.

• There has to be a market price for the products or services that are being transferred. The market has to be competitive and it should reflect the same condition as the products or services being transferred.

• An alternative to selling or sourcing internally should exist. The business units should have the freedom to exercise the choice to use the alternative. In this case the price will be established by the market.

• There should be transparency of information sharing. Managers should know about the alternatives that exist for sourcing or selling to the external market.

• The negotiation process has to be a well working process between the business units.

These conditions however are not the prerequisite to having a transfer price between business units.

The conditions above can be grouped into two areas, organisational structure and strategy, and performance strategy. Transfer pricing should encourage decisions that are aligned with the achievement of the organisational strategies. The transfer price should also serve as a method of measuring performance of business units to ensure that the business units are positively impacting the overall profits of the organisation.
2.1 Transfer Pricing and Organisational Strategy

Organisational strategies are commonly reflected in the organisational structure adopted. Eccles (1983) suggests two dimensions found in organisational structure that affect transfer pricing; the level of vertical integration and the level of diversity.

The first dimension is one where organisations are vertically integrated. This dimension is a measure of the production and distribution activities in an organisation. Organisations in this dimension are organisations that have business units that are interdependent. In most vertically integrated organisations business units are cost centres except for the sales force which generates revenue for the organisation. In this case all business unit strategies would be derived from the business strategy set by the organisation as a whole. Business units in this case therefore do not have decision making independence, as most decisions will be trickled down from top management. According to Eccles (1983) managers in this type of organisation are rewarded based on the performance of the organisation as a whole. This reward structure doesn’t create competition between business units. It therefore becomes beneficial for business units to work together rather than compete against each other. This structure encourages organisational goal congruency. This structure encourages business units to transfer their inefficiencies from one business unit to the next as the transfer would be measured at the cost of production. Transfer pricing in its purest form refers to the transfer of goods between profit centres, in this case there is no need for transfer pricing between business units, as they are not operated as profit centres.

The second dimension is one where organisations are diverse and there is total independence of business units operating as profit centres. This is the case when an organisation has different products and the producing and distribution markets have their own market and can function independently of each other. In
these types of organisations decision making is delegated right down to business unit managers. The business units in these types of organisations are measured based on a budget they are expected to meet. The entire organisation would therefore be measured in a similar manner. The remuneration of the managers is then based on the performance of the business unit. This encourages competition in the organisation, because of the competitive nature of the business units, internal transfer of goods become very important and the transfer price used will be negotiated between business units. The competition results in the business unit developing its own business strategy that will most likely not be derived from the organisational strategy. In this case goal congruency is not the first prize. Due to the competitive behaviour of business units, managers in the business units are inclined to focus their efforts only at manipulating their profits, and this would come at the expense of decision making. For this reason transfer prices in this type of situation needs to ensure that decision making is not compromised at the expense of performance.

One fundamental difference in these two dimensions is the freedom to source product internally or externally. According to Vancil (1978) quoted in Ghosh (2000), sourcing costs make up 75% of the cost of goods sold, which suggests that the profits of the purchasing business unit are heavily impacted by the price of goods sold. According to Ghosh (2000) internal sourcing results in 75% of divisional profits being impacted by internal transfers while only 25% of the fixed profit component was affected by external sourcing. This is vice versa for external sourcing, 75% of the fixed profits are affected by the external transactions and only 25% were impacted by internal transfers.

Vertically integrated business units are in most cases encouraged to source internally while diversified organisations are not. Sourcing according to Colbert and Spicer (1995) is very important when considering what transfer pricing system to use.
Sourcing decisions also affect dependency between business units. This is normally seen in the case where asset specificity exists. Vertical integration is normally fuelled by an organisation wanting to exploit technological advantage or supply chain optimisation. When this occurs investments are likely to be made with the hope that returns can be achieved based on an internal transaction between the producing and the buying business units. Colbert and Spicer (1995) define asset specificity to occur when an investment is made in relation to a particular transaction and the value of the investment in its next best alternative is lower. Depending on the value of the alternative use of the investment asset specificity creates a dependency between business units. In some organisations the investment would be protected and the purchasing business unit may be forced by top management to purchase a certain percentage of its requirements internally in order to achieve the said returns of the investment.

Summarising the above transfer pricing systems in an organisation are affected by the sourcing decision and the dependency that exists between business units. The dependency in most cases depends on the level of vertical integration and the level of diversity within an organisation. In vertically integrated organisations the dependency may exist as a function of the level of asset specificity within the organisation.

In the event that the organisation is vertically integrated business units are likely to use cost based transfer pricing. This is because of the fact that in most cases organisations that are vertically integrated tend to be made up of cost centres and one revenue centre. This encourages business units to cooperate with each other. The incentive schemes used in this case are schemes that are based on the overall company performance rather than the individual business unit performance.

Diverse organisations generally have the freedom to source product internally and externally. The business units in this case are independent and make their
own sourcing decisions. This structure is one that doesn’t encourage goal congruency rather it encourages competition between business units. In this type of structure the incentives used are based on individual business unit performance. The managers of business units are therefore encouraged to manipulate their profits. In this organisation transfer prices are generally set via negotiations. This is considered to be the fairest price that can be achieved. This echoes what Homlstrom and Tirole (1991) and Wagenhofer (1994) say that the transfer pricing problem can be best solved if the environment in which the transfer price takes place is taken into account. Therefore the organisational strategy and structure has to be considered when choosing a transfer pricing system.

There are cases though where organisations are not completely vertically integrated and not completely competitive. Eccles (1983) calls these organisations collaborative organisations. These types of organisations will have both the interdependency of vertically integrated organisations and the competitive behaviour of competitive organisations. A tension will therefore exist because the organisations compete against each other for resources and profits, yet they are also dependent on each other for success. In this case there is no clearly defined transfer pricing method that should be used. However as there is an element of competitiveness and cooperation at the same time, a negotiated transfer price seems to be the fairest form. Eccles (1983) suggests that a transfer price related to the market price is important to use in this case as it reflects the outside market where the business units would be performing. The price ought to reflect the fact that there are no advertising costs for the selling business unit. This therefore means it should be some market price less a discount.
2.2 Evaluating Managerial Performance

Most business unit leaders are measured on the profits they generate in their business unit. This helps to ensure that business units are operating effectively and not transferring their inefficiencies to the next business unit. The purpose of performance measures is to motivate managers and to attain goal congruency. According to Kaplan and Atkinson (1998) profit is the most widely used performance measure for business units.

Since business units are measured on their profits it therefore incentivises the receiving unit to want to pay the lowest possible price for goods received and the selling business unit would like to achieve the highest possible price. In this case there are two different goals that each business unit will be trying to achieve. In order to ensure that the business units make the correct decision there has to be a transfer price between the business units.

In most cases transfer pricing systems do not achieve the desired behaviour from business unit managers. This is contrary to the polarity that needs to be maintained between organisational goals and business unit goals, which is known as goal congruency. Ghosh and Boldt (2004) suggest that the purpose of transfer pricing systems is to ensure that each business unit positively affects the organisation’s profits. Chalos and Haka (1990) suggest that transfer pricing encourages competitive behaviour especially when transfer prices are negotiated between trading divisions. According to a study done by Vally (1998) on listed companies on the Johannesburg Stock Exchange most companies use transfer pricing for performance evaluation of business divisions and improving autonomy. These two reasons were rated higher than maximising consolidated group profits.

Managers are often rewarded based on their business unit's performance. This being the case it can be said that transfer pricing affects the performance of the
managers and their decision making. This results in competitive behaviour as stated by Chalos and Haka (1990). The competitiveness could drive a manager to focus on increasing the profits of his or her business unit at the expense of the organisation as a whole. This typically occurs in an organisation where business units have the freedom to source or sell their product and services freely from the external market. This suggests that there is a correlation between the business unit manager behaviour and the transfer pricing system.

2.3 Management Goals Versus Organisational Goals

Business unit managers operate on behalf of the Organisation. It is therefore very important to ensure that the managers operate in accordance with his or her employer. However this does create a problem of the manager operating in order to further his own interests rather than the interests of his employer. This is referred to as the agency problem. This refers to the relationship between a principal and an agent. The principal is defined to be the owner of the contract and the agent is the individual or individuals who are contracted by the principal to perform a service on behalf of the principle. Nader and Walton (2005) define the relationship to be “a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves the delegation of some decision making authority to the agent. In this relationship however there could be conflict of interest where the agent acts in a manner that benefits him and not the principal. This occurs when the agent and the principal have different goals and different risk appetite (Shama, 1997).

A lot of research has gone into determining solutions to the agency problem. The solution can be achieved by monitoring the behaviour of managers or by incentivising the manager. These solutions suggest that there should be a method of measuring the behaviour of managers and also that the principal
should determine what behaviour it seeks from the manager. Once these behaviours have been identified they then need to be measured. In order to ensure that the behaviour is achieved there should be some way to incentivise the managers to behave in the manner desired by the principal. Nader and Waltson (2005) suggest that transfer pricing can be used to solve the agency problem. They also suggest that the two most important decisions that affect transfer pricing are; the sourcing decision and the pricing decision. This is also supported by Kaplan and Atkinson (1998) and Eccles (1983) who suggest that the transfer pricing decision is based on the sourcing decision and the pricing decisions. Eccles (1983) also suggests that transfer pricing decisions cannot be taken in isolation, and suggests that the manner in which managers are compensated also has an impact on the decisions that the transfer pricing system attempts to encourage. This is also echoed by Chalos and Haka (1990), who suggest that profit maximisation is also a function of incentive schemes together with transfer pricing. According to Bottom (1998) transfer incentives affect the managers risk preference. It is suggested by some (Osborne, 1985 quoted in Ghosh and Boldt, 2004) that risk preference has an impact on managers’ behaviour and their perception of fairness when engaging in transfer pricing negotiations. It therefore becomes very important that transfer pricing should be set in accordance to the organisational structure, the market structure and an incentive scheme that will encourage managers to behave or act in a manner required by the principal contractor.

Ghosh (2000) suggests that the success of the transfer pricing system is related to the organisational structure and how managers are measured and compensated. According to Chalos and Haka (1990) the organisation’s incentive scheme and compensation of managers affects the outcome of transfer pricing. According to Greenberg et al (1994), it is better to use cross divisional compensation schemes in the case where business units are highly interdependent. Ghosh (2000) found in his research that there is a correlation between transfer price negotiation and the organisational structure. He suggests
that an organisational structure should compliment the transfer pricing system selected. He also alludes to the fact that fairness of transfer pricing will affect the behaviour of the managers in business units.

Eccles (1985) suggests that transfer prices are selected based on a reward system when transferring between two divisions for the first time. After some time the reward system will normally be changed together with the transfer pricing rules. This suggests (Slof, 1999) that there is a link between the reward system used and the transfer pricing method used. However he also debates that transfer prices cannot be set in absence of a reward scheme and visa versa. He also suggests that there is no single transfer price that will allow one to set a reward scheme. This is because the characteristics of two different players have to be taken into account together with the reward system. In such situations then dual pricing systems can be beneficial as they will consider both the needs of the supplying business unit and the purchasing business unit. Ghosh (2000) suggests that the compensation scheme is dependent on the sourcing decisions that the business units have. When sourcing from a within vertically integrated company, interdependency between the sourcing and purchasing business units is created. However in the case where the sourcing can happen externally the dependency is decreased, as the business units can autonomously develop sourcing and selling decisions independent of each other. Business units that are dependent on each other tend to have fair transfer pricing when the compensation or reward scheme is based on the complete performance of the organisation as a whole.

In the case where there exists a market for the product being transferred and the market is competitive and liquid the market price will serve as a check for managers behaving opportunistically. This also offers the firm an ability to determine whether it should produce the product being transferred (Zimmerman, 1997).
2.4 Summary

The transfer pricing problem can be best understood and handled well when the environment in which it is implemented is well understood (Ghosh, 2000). The issues that have to be considered as stated above are the following:

- The organisational strategy and its structure
- The choice of transfer price
- The performance measurement
- The incentive schemes for business unit managers

This echoes what Homstrom and Tirole (1991) and Wagenhofer (1994) say that transfer pricing problem can be best solved if the environment in which the transfer price takes place. Borkowski (1990) found in his research that the environment that an organisation operates in doesn't have an impact on the choice of transfer price used. He also suggests that internal organisational variables affect the choice of transfer pricing selected by the organisation. Borkowski found in his study that organisational size, the integration of the organisation and the decentralisation of the business unit. Therefore the organisational strategy and structure has to be considered when choosing a transfer pricing system.

The factors mentioned by Borkowski (1990) and Ghosh (2000) that are mentioned above therefore have to be considered when evaluating the effectiveness of the transfer pricing system used.

Theory suggests that vertically integrated organisations should have a transfer pricing that is related to a cost price (Eccles, 1983). This is however in the event that the business units are operated as cost centres and only the marketing organisation is operated as a revenue centre. Borkowski (1990)suggests that this is suitable for small organisations that do not have large business units and
performance measurement complexities. In organisations that are corporative and the transfer of goods occurs between profit centres then negotiated transfer pricing system should be used. Eccles suggests that this is the fairest way of allocating transfer pricing. This is further echoed by (Horngren et al, 1999) and Ghosh and Boldt (2004). This is especially the case when the price of the product that is being transferred is traded in a volatile market (Horngren et al, 1999).

It is suggested that goal congruency cannot be achieved with transfer pricing alone; it has to be coupled with the correct incentive scheme. The purpose of the incentive scheme is to drive manager’s decisions to be in line with the organisational goals and objectives. This should be related to a performance measurement system that that measures business unit performance well.

Transfer pricing affects investment decisions (Colbert and Spicer, 1995). This is because investments are made with the assumption based on the return expected from the investment. This suggests that business units that tend to return more on their assets will most likely receive more resources than business units that return less. Transfer prices should be set such that the returns that will be realised from the investment reflect the correct information to aid the investment decision making. Asset specificity has an impact on the type of transfer price that organisations use. In the case that organisations invest in assets that are specialised, and there is not alternate value for the use of the asset, organisations are likely to protect the investment and ensure that a transfer of goods will exist to ensure a satisfactory revenue stream. The revenue stream is expected to ensure returns from the investment.
3 Methodology

The method used for this case research is based on the Robert Yin’s method of case study research design and methods. Yin’s method was used as it is a standard reference for case study research design. Table 1 shows a table by Yin (2003) which suggests type of research strategy one should employ. The decision as to which research strategy to follow is based on three levels of elimination. The first level deals with the type of question the research attempts to answer. The second level is based on the amount of control the researcher has over the behavioural events. The third level looks at the degree of focus on contemporary as opposed to historic events.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Form of Research Question</th>
<th>Required control of Behaviour</th>
<th>Focus on Contemporary Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>How, why?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey</td>
<td>Who, what, where, how many, how much?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Archival analysis</td>
<td>Who, what, where, how many, how much</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History</td>
<td>How, why?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Case Study</td>
<td>How, why?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 1: Relevant Situations for Different Research Strategies Source Yin (2003)

The purpose of the research is to determine how organisations decide on their transfer pricing policies and why they chose the said policies. The data can only be sourced from organisations and the researcher will not have an influence over the events of the case. The research will be based on current activities and not on historic activities.
A vertically integrated organisation will be studied and interviews held with the relevant departments. The organisation that will be used for the case is BP Southern Africa. BP Southern Africa has a manufacturing department and a marketing department. These departments are all operated as profit centres and transfer goods between each other.

The data collected will be a two phase approach. The first approach will be to determine the company structure and the transfer pricing and performance measurement policies. In order to do this interviews with the performance manager will be interviewed. In this phase a particular product that is being transferred will be considered. The transfer of this product will be the basis for evaluating the transfer pricing system and policies.

The second phase of the research will involve interviewing individuals directly related to the product that is being transferred. The selection of the interviewees will depend on the product that will be chosen as a sample for the evaluation of the transfer pricing system and policy. The focus will be on the business unit leaders and the individuals who are directly affected by the transfer of the product.

The data that will be collected will be based on the literature review. The questions will address issues such as fairness of the transfer price used, how behaviour is being affected by the transfer price, and the relationships between transfer pricing and divisional performance measures.

The data will be gathered using interviews with key managers responsible for setting transfer prices and those directly affected by the transfer price.
3.1 Case Selection

BP was selected as a case for investigating the transfer pricing implementation. BP has invested in the Sapref Refinery which is a joint venture refinery between BP and Shell. The refinery produces most but not all BP and Shell’s market requirements. The balance is sourced from other oil companies or it is sourced from outside the country.

BP is a decentralised organisation where most economic decisions are localised at business unit level. In the production and supply of petroleum products there are three departments in BP; a marketing department, manufacturing department and the integrated supply and trading (IST) department. The manufacturing department runs the refinery and produces products and these products are handed over to the Integrated Supply and Trading department at an agreed transfer price related to the market price. The integrated supply and trading department then hands over the product to marketing at the same price agreed with manufacturing. IST is also responsible for optimising the shorts and surpluses that would result from the difference between the refinery production and marketing demand.

It is expected that the cost of supplying externally should be higher than the cost of sourcing internally. However for some products that is not the case. Sourcing the product externally is more expensive than the basic fuel price. Even though this is the case the bulk of the product is sourced from the refinery rather than from externally. This is based on the fact that a refinery that the organisation has heavily invested in should deliver returns to the organisation. This situation is further complicated by the fact that the oil industry has volatile product prices. In some months it is cheaper to source product from the refinery and in some cases it is cheaper to source externally, however because of the investment made, Marketing is expected to take all product produced by the refinery.
This is a classic case where the business unit that sells to the other has excess capacity. In this case the buying business unit has to forgo the cheaper price and settle for a more expensive source of product. This however ensures security of supply for the buying business unit.

The situation at BP poses a few questions. How does an organisation maintain goal congruency when there are external sources of product that positively affect performance of one business unit, while negatively affecting the performance of the overall business unit? What incentives will induce behaviour that favours goal congruency? How effective are transfer pricing systems in manufacturing organisations committed to heavy capital investments? How do these issues affect the behaviour of managers? These questions will effectively answer the questions as to whether the transfer pricing system does in fact allow for fair performance evaluation, encourages business unit managers to be more autonomous and also adds positively to the bottom line of the organisation.

### 3.2 Data Gathering

The data required for the study was collected via interviews with individuals in the three departments involved in the transfer of product from the refinery to the market. From each business unit two candidates were identified. One from top management and one from middle management. The interviews were conducted using a structured guide.

The questions asked during the interviews included questions about the size of the organisation, the nature of the transfer of goods between the business units, the sourcing decisions where relevant, the performance measurement criteria, the relationship between reward and performance and the interdependency of business units. The interviewees were also asked questions about their
understanding of transfer price and what objectives they believe the transfer prices are expected to achieve.

3.3 Data Analysis

The data gathered was for a specific transfer of a specific product. This was based on the complexities around the product. The analysis focuses on the pattern observed with the transfer between the business units. This is then compared to the patterns hypothesized in theory. These are then compared using Yin’s (2003) model of pattern matching. This is consistent with studies conducted by other researchers in the field such as Colbert and Spicer (1995) who suggest that Yin’s case study method is the standard reference for analysing case research. The analysis looks at the similarity between practice and what is predicted by theory if there is a similarity it is said that the theory is replicable. If however the patterns observed from the case are not the same as theory the differences are observed and discussed and the reason for their differences are discussed. The differences could occur because of the fact that organisations are unique and theory is not repeatable in all organisations. The data gathering process allows for the data about the uniqueness of BP to be included in the analysis.
4 BP Case

The petroleum industry in South Africa is regulated. The pricing is set by the Department of minerals and energy. This is the price that can be realised by oil companies from selling product to the public. The price is based on an import alternative to producing in the country. This price however is an average of three different markets namely, the Mediterranean markets, the Arab Gulf market and the Singapore markets. The market prices from these markets are always different. The pump price set by the Department of Minerals and Energy attempts to reflect global market prices however the average doesn’t reflect the economies at play when sourcing as it doesn’t consider the product availability from these markets.

4.1 Organisational Structure

BP Southern Africa is a vertically integrated organisation. The organisation is divided into three main parts; the manufacturing business, the marketing business and the integrated supply and trading (IST) business. These business units are operated as profit centres.

The manufacturing business unit is responsible for production while the marketing business unit is responsible for sales. The marketing business unit provides product quantity and specification demands. The manufacturing business unit produces product based on the quality and quantity that the marketing business unit requires. The manufacturing department therefore can also make investment decisions based on what they see as the demand from the marketing department. Integrated supply and trading is responsible for the transfer of goods from the manufacturing business unit and the marketing business units.
The relationship between the three business units can be best described as follows. The marketing business unit supply IST with product demand forecasts. The manufacturing business unit supplies IST with the production forecasts. These two sets of information are matched against each other. If there is a product surplus IST will dispose of the surplus products in the external market. If there is a product shortfall IST will source the required product from the external market. The manufacturing and the marketing business units therefore never interact with the external market. The reason for this is so that each business unit may concentrate on its core activities and not secondary activities.

The primary role of IST is ensuring security of supply for the marketing department and to ensure the placement of products from the refinery. IST’s role includes supply chain optimisation. Because the business unit is the only external facing business it therefore becomes the custodian of market information. This therefore gives the business unit an additional role of providing market data to the other two business units and overseeing the transfer price negotiation process. The business unit does not make the pricing decision but supplies all relevant data for decision making and also acts as an arbitrator should an agreement not be reached on pricing decisions.

### 4.2 Transfer Pricing Philosophy

The transfer price philosophy employed at BP is based on the refinery’s production capacity. When the refinery produces excess products, the product is transferred at an export parity price, as that is the alternative use for the product. If however the refinery cannot meet marketing demand the product is transferred at an import parity price. This is done in order to attempt to allocate decision costs to the business unit making the decisions. This ensures that any
manufacturing decisions do not affect marketing and any sales decisions do not affect manufacturing profits.

The transfer price is negotiated between business units and agreed upon prior to the beginning of the financial year. Once the transfer price has been negotiated and agreed, the business units then discuss their performance contract which is based on the agreed transfer pricing. The performance of each business unit will therefore be measured against the agreed performance contract. The performance contract will detail the budget profits expected from the business unit in the following year.

For this study two transactions will be considered, the transfer of mogas (petrol) to retail and the transfer of liquid petroleum gas (LPG) to the global gas business. These two products have been chosen as they have been affected most by the government’s legislated product specification.

Mogas in South Africa historically had contained lead. Since the 1st of January 2006 the government introduced a new specification which is lead free. This meant that refineries had to invest in plant and equipment that will produce lead free mogas for the South African market. The lead in mogas was injected to improve the octane on the mogas. With a lead free specification refineries are expected to therefore produce a higher octane product without adding lead. BP’s global marketing arm has decision in order to achieve the lead rating required in the country; it will not use heavy metals to improve the octane. This is consistent with the drive to become an environmentally friendly organisation. Heavy metal free mogas is more expensive than heavy metal containing mogas. The injection of heavy metals in mogas however is not legislated in South Africa, which means marketers may market products with heavy metals in them. As the heavy metal mogas is not restricted in the South African market organisations may not claim a premium for selling heavy metal free mogas. This creates a complex situation in
the organisation as the cost of this decision has to be allocated to a business unit and it also has to drive the correct decision from all parties involved.

The LPG historically had been a product that the refinery made surplus to marketer's demand. However with the economic boom in South Africa there has been an increase in demand for LPG in the country. The refineries are no longer producing surplus product. In the past the product had been transferred at export parity in line with the BP pricing philosophy. However the structural change in the market has occurred in the middle of a financial year and all budgets and performance contracts have been agreed on based on the export parity price. The economic effects of the change are reflected in the transfer price. The change in the transfer price will have a direct impact on the performance of business units. This affects the sourcing decisions of LPG and therefore has to be included in the performance contracts. This suggests that performance contracts have a correlation to transfer pricing.
5 Results and discussions

The evidence is presented in the form of tables and not as individual transcripts. These may be found in the appendices.

5.1 Organisational Structure and Choice of Transfer Price

BP is a vertically integrated organisation and it’s business units are expected to operate as cost centres with the marketing department operating as a revenue centre. However according to Borowski (1990) this is only true of small organisations. Large organisations would have their business units operating as profit centres. In BP’s case the manufacturing and marketing business units are operated as profit centres. Borowski (1990) also suggests that the organisational structure and the environment it operates in should not affect the choice of transfer pricing system. However according to Eccles (1983) and Homstrom and Tirole (1991) the environment that the organisation is operating in and the organisational structure have to be considered when selecting a transfer price system.

The environment that BP Southern Africa operates in is a very competitive one. Prices are transparent and are set in an efficient market. This is the case as all petroleum prices are based on Global market prices quoted on an exchange. The price of mogas is however regulated at the petrol station pump and lags global markets by a month. However the price is still relatively competitive. According to Kaplan and Atkinson (1998) the transfer price that would be used in this type of environment would be related to the market price.
The transfer pricing system used by BP is based on the market price. This suggests that the organisation even though vertically integrated has elements of being diverse. The business units compete with each other for resources. This is in line with what is suggested by Borowski (1990); large organisations normally have their business units operate as profit centres.

The fundamental difference between vertically integrated business units and diverse business units is the interdependency between business units and the freedom to source and sell products externally.

The business units are very independent as they are operated as profit centres. However the business units do not have the freedom to source and sell directly to the market. All product sourcing decisions are made by IST and not the individual business units. This is due to the strategy BP has chosen to adopt, where only one business unit is the face of the organisation in the industry. This ensures that business units focus their core activities and not procurement issues. This makes the transfer price a tool used to measure performance of the business units rather than making sourcing and selling decisions.

The sourcing restriction create a dependency between business units, this is characteristic of a vertically integrated organisation. This warrants for the use of a cost base transfer price. However the business units are operated as profit centres, the cost based price would incentivise the manufacturing business unit to elevate their cost price in order to manipulate profits. It would also result in inefficiencies of the manufacturing business units to be transferred to the marketing business unit. For business units to be operated as profit centres there has to be independence between the business units.

In order to achieve the independence there has to be a market to which the two business units can buy and sell to. This is created by IST. IST plays the role of an internal market. Even though the prices are not set by IST, it provides all of
the market data to the business units and also facilitates the transfer of goods. The business units interact independently with IST. The only direct interaction that exists is the setting of the transfeere price basis. This creates perfect independence. IST collates demands and production and then decided how to supply and how to dispose of surpluses.

Without the internal market that creates independence, the two business units cannot be operated as profit centres. By definition a profit centre is a business unit that is independent of other business units and it can make sourcing decisions independently of the organisation as a whole. BP requires the business units to be independent so that it can optimise on the product value chain from manufacturing to sale at the petrol station pump. The independence also allows for each business unit’s performance to be measured independently of the other.

The organisational structure creates a competitive environment for the business unit managers. Therefore in order to ensure that the measurement basis is fair the transfer prices have to be negotiated. In order to ensure that negotiations succeed IST acts as an independent body that supplies all market data to both business units and also acts as a facilitator in the process of negotiation.

The organisational structure adopted at BP encourages business unit managers to concentrate on the performance of their own business units. This encourages the business units to focus their activities on what they do best, however it doesn’t necessarily encourage goal congruency. The independence of the business units ensures that decisions made by each business unit do not necessarily affect the performance of the other business unit. There are however cases where BP has cases where decisions from one business unit affect the other business units performance. In this situation the decision maker should bear the costs of their decisions and not the other business unit. This is however not always clear and due to the competition created by the organisational structure it can be a source of business unit conflicts.
5.2 Performance measurement

At the beginning of the year business units agree a performance contract, this is the document against which the business unit’s performance will be measured. Each business unit sets targets for profits in the next year. The profits are based on the transfer price agreed between the business units. Therefore the transfer price is agreed upon before the business units set their profit targets.

<table>
<thead>
<tr>
<th>% based on profits</th>
<th>Business units</th>
<th>Top Managers</th>
<th>Middle manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manf</td>
<td>IST</td>
<td>Markt</td>
</tr>
<tr>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>75%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Understand of Transfer price effect on PC</th>
<th>Business units</th>
<th>Top Managers</th>
<th>Middle manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business units</td>
<td>Top Managers</td>
<td>Middle manager</td>
</tr>
<tr>
<td></td>
<td>Manf</td>
<td>IST</td>
<td>Markt</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
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<thead>
<tr>
<th>Perceived fairness</th>
<th>Business units</th>
<th>Top Managers</th>
<th>Middle manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manf</td>
<td>IST</td>
<td>Markt</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of Influence on transfer price</th>
<th>Business units</th>
<th>Top Managers</th>
<th>Middle manager</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manf</td>
<td>IST</td>
<td>Markt</td>
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<tr>
<td>-</td>
<td>-</td>
<td>High</td>
<td>Low</td>
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</tbody>
</table>

Table 5-1 Structure of Performance Contract

The organisation has two levels of performance contracts. There is a performance contract for the business units and there is one for each employee. The business unit contract is purely based on profit targets. The employee’s performance contracts are based on commercial delivery, partnerships with other business units and HR essentials such as training. The contract however weighs heavily towards the commercial delivery. The business unit performance contract is derived from the organisation’s strategy. The business unit leader’s
performance contract is derived from the Business unit’s performance contract; which then feeds into the performance contracts of middle management.

The structure of the performance contract ensures that goal congruency is achieved. This is achieved by setting the performance contracts based on the organisational strategy as a whole. This is seen with the trickle down effect of the performance contract from organisational strategy to business units, down to middle managers. The performance contracts ensure that each individual focuses their attention on organisational goals, as these are specific and they form a basis for measurement at the end of the year.

The transfer price serves as an input to the performance contract. This is used to set the targets on which the performance will be measured. The business unit leaders therefore are interested in the transfer price being set, as it has a direct impact on their cost and revenue. In order to ensure that the transfer price being set is fair, business unit managers use the negotiation process for determining the transfer price. This is consistent with theory. This suggests that performance contracts are only fair if they are set on a fair basis, the transfer price. The business unit leaders are therefore interested in having a fair transfer price in order to ensure a fair performance contract.

Once the transfer price is set and the performance contracts set, they are frozen until a need arises for the transfer price to be changed, if the transfer price changes the basis of the performance contract would also change. It would therefore be required that the performance contract be changed to align with the correct reference.

The performance contract is viewed as a fair process for measuring performance in the organisation. Most interviewees understand the effect of the transfer pricing decisions on the performance measurement. Top management all understand what the effect of the pricing is on their performance contract. This is
however because they are involved in negotiation of the transfer price. The middle management is not directly involved in the setting of the transfer price nor are they involved in the setting of the organisational performance contract. Due to this it was expected that the middle management would not understand how the transfer price affects their performance contract. From the results it was evident that it was understood by the respondents from the manufacturing business unit and IST.

When questioned about the fairness of transfer prices, the business unit leaders mentioned the importance of ensuring that the decisions made by one business unit do not affect the revenues and costs of the other business unit. They believe that this is expected to be reflected in the structure of the transfer pricing system. This suggests that they believe their performance contract is affected by the transfer price. This suggests a need for a robust transfer pricing system that ensures that any inefficiencies of a business unit do not get transferred to another business unit.

5.3 Reward and Compensation

BP has a compensation scheme that is coupled to variable pay. Depending on the level of the individual in the organisation the variable pay will be different. Top management has variable pay which is 30% of the annual salary while middle managements variable pay is 25% of annual salary.

The variable pay is directly linked to the performance contract. Depending on an individual's performance the variable pay can be up to the said variable pay limit. The purpose of the incentive scheme is to incentivise employees to perform well to meet and possibly perform better than the performance contract.
Since the performance contract is based on the profit targets for the business unit, and the variable pay is based on meeting performance contract targets, the variable pay serves the purpose of motivating the managers to achieve the profit targets for the organisation.

The evidence in table 5-2 shows that the marketing and the manufacturing business units’ variable pay is largely based on the performance of the business units. This differs to that of IST, of which 40% of its variable pay is based on the performance of the other business units. The difference exists because of the role that each of the business units fulfils in the organisation. The marketing and the manufacturing business units are expected to be independent business units competing for resources and profits, while IST plays the role of collaborating with each business unit. The purpose of IST’s existence is to ensure that the value chain from manufacturing to marketing is optimised. By the nature of the relationship IST is in collaboration with the other two business units, yet these two still remain in competition with each other. This structure ensures that goal congruency is maintained. IST therefore becomes the custodians of ensuring that this occurs. The competitive nature of the marketing and the manufacturing business units ensure that the correct economic decisions are made and the cost of those decision sits with the correct business unit, which has the authority to manipulate the decision.

<table>
<thead>
<tr>
<th>Top management</th>
<th>Middle management</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Manfng</td>
</tr>
<tr>
<td>% variable pay</td>
<td>30%</td>
</tr>
<tr>
<td>% based on Business unit performance</td>
<td>75%</td>
</tr>
<tr>
<td>Is individual’s contribution understood</td>
<td>Yes</td>
</tr>
<tr>
<td>Perceived fairness performance bonus</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 5-2 Reward and compensation structure

The evidence also shows that the variable pay rates differ depending on the level of the manager. Middle managers have a significant portion of their variable pay dependent on the business unit’s performance. This is the case for both the manufacturing business unit and that of the marketing business units. This is due to the fact that middle management is not involved in the negotiation of transfer prices therefore their decision making is directly linked with the day to day operation of the business units. In most cases the decisions made do not have an impact on the transfer of goods between the business units rather the decisions are on the impact of the transfer price on the business unit. The transfer price is an input to their decision making. Middle management are what can be termed users of the transfer price not the negotiators of the price. This is however not the case in IST as the business unit is focussed at optimising the value chain. The decisions made by IST middle management will be in collaboration with one and/or both business units. Therefore in order to ensure that their decisions are for the best value for the organisation as a whole the incentive scheme has to encourage the business unit managers to consider the organisation’s profits rather than those of its own business unit.

Top management’s variable pay is not completely based on the performance of their business units. The performance of the business unit counts for a significant portion of the variable pay, however in order to ensure goal congruency a portion of the variable pay is based on the performance of the other business units. This type of incentive attempts to deal with the agency theory problem, by ensuring that the incentive is not only made up of individual business unit performance but the organisation as a whole. However at the same time ensuring that the manager doesn’t neglect the performance of his own business unit, because a significantly large portion of his/her variable pay is made up if his/her own business unit. This coupled with the performance contract will ensure that the
managers are not only focused at competing with the other business unit but there will be an element of collaboration between business units.

Over all the structure ensures the compensation structure ensures that business units focus their efforts at ensuring that their business units deliver on performance contracts, but in order to ensure goal congruency the business unit’s variable pay will include portions made up by the performance of the other business units as well. This ensures that the managers do not lose sight of the fact that they might be operating in independent diverse business units but they have to collaborate with other business units for the purpose of achieving organisational goal congruency. The structure at BP encourages the manufacturing and the marketing business units to remain independent. This is necessary for the transfer price negotiation process. IST plays the role of ensuring goal congruency by collaborating with both business units and also ensuring that all market information is provided to all business units.

The perceived fairness of the variable pay process is however considered to be unfair by middle management of the manufacturing business unit and the marketing business units. When asked why this was considered to be the case, the answers alluded to the fact that the managers did not make collaborative decisions with any of the other business units. They felt that their efforts were eroded by the performance of business units that they had no influence on. This can be inferred to mean that the managers do not necessarily understand the impact their decisions have on the organisation as a whole. The managers viewed their decisions to only affect the performance of their own business units. This view is not the same when compared to the views of top management. This can be attributed to the fact that top managers are directly involved in the negotiation of the transfer price. Top management therefore understand the value of the decision they make on the organisation as a whole.
Since the reward and compensation system at BP is based on the performance contract, this implies a link to the transfer price. The compensation scheme is not affected directly by the transfer price. It affects how the performance is measured. The independence created by the organisational structure suggests that the business units should be compensated independently of each other. However at BP there is an element of total organisational performance that is included in the compensation structure. This is done in order to achieve goal congruency in the organisation. The transfer pricing system at BP however doesn’t encourage collaboration. This is because the transfer price is set such that the business units are completely independent of each other. This independence however is important as it ensures that business units place their focus on improving their profits through improving efficiencies.

The compensation scheme used affects the negotiation of the transfer price. This is because the transfer price has an indirect link to the compensation of the business unit leaders via the performance contract. Business unit leaders therefore do not want any of the other business unit decisions to affect their own business units. However the fact that the compensation scheme has an element of the performance of the organisation as a whole, it is important that the business unit leaders collaborate when they can to ensure that the organisational performance is achieved. The concern however is that middle management do not feel the need to have their performance linked to that of the organisation as a whole, this is because these are the future leaders of the organisation.

### 5.4 Pricing Decision

The evidence on the choice of transfer pricing suggests that the price is set based on the refinery’s ability to produce the product. The BP transfer pricing policy stipulates that; if the refinery produces surplus product that the marketing business unit cannot absorb, the price should be set at export parity, while
products that the refinery cannot produce enough to meet marketing’s demand is priced at import parity.

<table>
<thead>
<tr>
<th>Source of product</th>
<th>Manufacturing’s hand over price</th>
<th>IST’s handover price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex- Refinery</td>
<td>BFP based</td>
<td>BFP based</td>
</tr>
<tr>
<td>Ex – external markets</td>
<td>-</td>
<td>Import parity</td>
</tr>
</tbody>
</table>

**Table 5-3 BP Mogas pricing policy**

BP marketing has made a strategic decision not to market mogas that contains heavy metals. However in South Africa the only heavy metals restricted in mogas is lead, other heavy metals are permitted. The BFP price in South Africa is based on mogas that may contain heavy metals. The cost of importing heavy metal free mogas is a higher than the BFP price. BP has allocated the cost of importing heavy metal free mogas to the marketing business unit, as per table 5-3. This pricing structure is such that there is a different transfer price for mogas depending on the source of the product. All product produced by the manufacturing business unit is priced on a BFP basis while all product sourced externally is priced on the import price of the heavy metal free mogas.

The price selected therefore makes the marketing business unit dependent on the refinery to supply as much product as possible. In the event that the refinery cannot produce the required mogas, the marketing business unit would have to source product at a higher price. This would be transferring the inefficiencies of the manufacturing business unit to marketing. Marketing would therefore be negatively impacted because of the manufacturing’s decision. To ensure that this doesn’t happen the manufacturing business unit commits to a certain volume of product for the year. The price of this product is based on the BFP price, and all quantities above the manufacturing production is priced at the heavy metal free import price. In the event that the manufacturing business unit cannot meet its
contractual obligations, the cost of importing additional product is borne by the manufacturing business unit.

<table>
<thead>
<tr>
<th>Source of product</th>
<th>Manufacturing’s hand over price</th>
<th>IST’s handover price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex- Refinery</td>
<td>Export Parity</td>
<td>Export parity</td>
</tr>
<tr>
<td>Ex – external markets</td>
<td>-</td>
<td>Export Parity</td>
</tr>
</tbody>
</table>

Table 5-4 pricing policy for products in excess of marketing’s requirement

In the case where product is not regulated and the refinery produces surplus to the marketing business unit’s demands, the price is based on an export parity price. Historically the export parity price has always been lower than the import parity price. The export parity price is the price that the manufacturing would realise if it were to export the product. In the event that the refinery cannot produce the required product quantities, the hand over price to the marketing business unit is the export parity price. This ensures that the refinery inefficiencies are not transferred to the marketing business unit. Currently however the market structure has changed and the demand for LPG outstrips the supply from the refinery. In this scenario the said pricing policy can no longer valid, because the refinery would have to import additional volumes at a higher price than the transfer price, resulting in a loss. The marketing business unit would therefore increase sales and the impact of the loss would not be captured in the decision to increase sales. The pricing therefore needs to change. The transfer price is therefore as per the BP policy. This ensures that what ever decision made by the marketing business the cost of sourcing the additional quantities above the capacity of the refinery will be considered. The structure results in the best economic decision for the business as a whole.

The pricing decision used by BP attempts to ensure that all decisions made by the business units do not affect the profits of the other business unit. BP’s policy
on return on investments made by business units should be exposed to price volatility. The transfer price that is used has to be based on the market price. This suggests that in the event that market prices drop below the prices used to calculate expected returns, the effect would affect the investing business unit and not the rest of the organisation. This suggests that all investments are considered sunk costs and have no influence on the transfer price. This is different to what theory suggests. The organisation as a whole is exposed to market prices. The transfer price should reflect the market conditions at all times as this ensures that the correct decisions are made for the organisation.

When interviewing business unit leaders, they suggested that the oil industry has lots of price volatility and therefore these volatilities should be reflected in the business unit decision making. This warrants the use of the market price. This can be seen in the treatment of the mogas pricing decision. The mogas price is based on the local BFP price for all products sourced from the refinery and any additional import requirements are prices on the import parity price. This is to ensure that the decisions made by the marketing department do not have an adverse effect on the manufacturing business unit. This also works in reverse all products up to the agreed limit for the year supplied by the manufacturing department have to be priced at BFP to ensure that the inefficiencies of the Manufacturing department are not transferred to the rest of the organisation.

In the case of LPG the price is set on the alternative sale of the product. This is because the product is not regulated in the country. And therefore it is subject to the alternative market for the product.

The pricing policy at BP attempts to ensure that the transfer price is a fair as possible and allocates all the cost of decisions to the decision maker rather than the organisation as a whole. This also suggests that when choosing a pricing system a consideration of the environment that the organisation operates in should be considered.
5.5 Goal Congruency

Goal congruency can easily be achieved if the following conditions are met (Kaplan and Atkinson, 1998):

- organisation has competent managers
- the managers compensation and performance evaluation is considered fair and just
- there is a market price for the products being transferred
- the freedom to source from the external market as an alternative, and
- there is a flow of information to all participating business units

From the evidence presented above the products that are manufactured and marketed have a market and their market is very competitive. BP has as one of its core values that it intends recruiting top candidates for its staffing requirements. This suggests that all staff managers, in this case middle management and top management are competitive. From the evidence presented above the manufacturing business unit and the marketing business units are independent of each other. They do not have to source from or sell to each other. This is achieved by the creation of an internal market in the form of IST. IST’s role is to optimise the flow of products from manufacturing to the market, be it directly to the marketing department or to the external environment. At the same time it is IST’s responsibility to optimise the sourcing of product for marketing. This structure ensures the independence of the business units. IST is also responsible for gathering market data and presenting it to the manufacturing and marketing business units. The compensation used at BP ensures that the organisation business units focus on their main activities and ensure that their business units achieve set targets, however it also allows for the business units to consider the impact they have on other business units. This ensures goal congruence. This however can be achieved using a performance contract where all the expected behaviours are clearly defined together with the variable that can
be used to measure these behaviours. This motivates managers to comply. The incentive however is not only based on meeting target but also on the overall performance of other business units. This ensures that business units focus on goal congruency.

This suggests that BP has an environment that allows for business units to focus on goal congruency while ensuring the business units meet their individual targets. This process is achieved using the transfer price as a basis. Therefore this suggests that the pricing decision is very important. If the transfer price is selected to encourage the correct decision making from each business unit, they will perform in a manner that encourages goal congruency. This however is not easy to achieve as the organisation is expected to still be vertically integrated and competitive at the same time. These two structures are conflicting strategies. Co existence of these strategies is not very easy. The two strategies pull in opposite directions. In order to manage this polarity BP creates the IST department which becomes the internal market through which all transactions occur. This allows the business units to focus their attention on core activities rather than sourcing and selling decisions. IST therefore optimises the supply value chain for the organisation as a whole. As Eccles (1983) suggests, diverse organisations cannot achieve goal congruency as they are in competition with each other for resources and profits. In BP this exists in that marketing and manufacturing both compete for resources. The more profits a business unit makes on the same assets the higher the return on investment for that business unit. Therefore it becomes very important for the business units to act self seeking and manipulate profits. The easiest way to do that is by changing the selling price or buying price depending which of the business units you are. At the same instance the organisation is vertically integrated to benefit from lowered cost due to economies of scale and to exploit technological advances. This creates interdependency between the sourcing and the selling business units. The success of one then depends on the success on the other. This is difficult to achieve when business units are in competition. To try and attain this BP creates
IST to collaborate with the business units and optimise the value chain between manufacturing and marketing. Kouvelis and Lariviere (2000) suggest that this induces optimal actions for the organisation. IST therefore has a huge inclination to see all the organisations perform at their best. One would then expect that IST would be a cost centre, but it isn’t it is operated as a profit centre. This is difficult to maintain as there are two conflicting characteristics required of IST, manufacturing and marketing. It forces the characteristics to exist, the managers are first mandated to do so in the form of a performance contract, requiring the business unit to behave in a certain manner. This however is not used in isolation; it is used in conjunction with an incentive scheme to encourage the business units to achieve the targets set out in the performance contract. Therefore the attributes of a performance contract have to be measurable.

The performance contracts are based on profit targets set for the business unit. The profit targets are based on the transactions that occur during the transfer of product from one business unit to the next. Therefore there has to be an agreed transfer price before the performance contract is agreed upon. This is considered fair as the base on which the business units are measured is based on the agreed price between the business units. In the event that the transfer price changes for any reason the performance contract has to be adjusted for the change. Therefore performance contracts cannot exist in the absence of transfer prices, and cannot be agreed before the transfer price is agreed upon. The transfer price should ensure that inefficiencies from one business unit are not transferred to the next business unit. In the case of BP there is no single price that can achieve that. In the case of mogas BP has chosen tiered pricing to ensure that marketing decisions do not impact manufacturing and manufacturing decisions and inefficiencies do not affect the marketing. This is in agreement with what Ward (1993) suggests that transfer pricing should be set using the limiting factor of the transfer price as a driving force to set pricing. Strategic decisions costs therefore have to be allocated to the decision maker in the chain. This ensures that the department making the decision understands the full impact of
the decision on the organisation’s profits. This is the case with diverse organisations. The decision makers also bear the cost of the decision. In vertically integrated organisations the cost is not always transferred to the correct level. The pricing decision also suggests that the capacity constraints in the organisation are very important in deciding the transfer price. This has to be understood so that the inefficiencies are always allocated to the correct business unit. These issues have to therefore be understood before the Performance contract is agreed.

Once the performance contract is agreed measuring the performance becomes easy as this is measured against a reference. The performance against the performance contract determines how much the business units should be compensated. This is done with the use of a variable pay system. This suggests therefore that compensation schemes may not be agreed without first agreeing a transfer price. Transfer pricing alone therefore cannot affect goal congruency in the organisation, it has to be done together with an incentive scheme system. This is in agreement with Chalos and Haka (1990), they found that mixed incentive schemes lead to more integrative agreement in price negotiations and it benefits both the company and the division. Slof (1999) suggests that a compensation scheme may not be designed in isolation to the transfer pricing system. He suggests that transfer prices should be designed simultaneously with incentive schemes. He also suggests that it is impossible to find a reward system that is optimal when a single transfer price is implemented. In these situations he suggests a dual transfer pricing system. The closest any transfer price can get to the optimal price is if an average between cost and market price is used as a transfer price. This is however only feasible when business unit incentives are based purely on business unit profits. BP attempts to overcome this by setting the transfer price based not only on business unit performance but the performance of the organisation as a whole.
This is achieved by setting some percentage of the incentive scheme based on organisational profits and some percentage on business unit profits. The question of what should the ratio be, depends on the level of diversity and vertical integration of the business unit. This is however not the most optimum solution according to Slof (1999).

In summary goal congruency is affected by three factors, the structure of the organisation, the transfer price system and the incentive scheme that accompanies it. The transfer pricing is a function of the organisational structure and the organisations strategy. The transfer price forms the reference of the incentive scheme. The sequence has to be in this order, if the sequence were to be changed the transfer pricing system used would not achieve the optimum decision making.
6 Conclusions

Transfer pricing is important for organisations that transfer products from one business unit to the next. In most cases transfer pricing is used as a management tool to measure performance. It is therefore very important that an organisation chooses the correct transfer price to drive the correct behaviour in the organisations. Since the transfer prices are used to measure performance they can be used as a lever to manipulate profits. This creates competition between business units. The competition drives business unit managers to compete with each other for resources. This at times is achieved at the expense of the organisation as a whole.

In vertically integrated organisations business units are expected to collaborate to exploit the benefits of technological advancement and economies of scale. However with transfer pricing used as a performance measure, business unit managers are inclined to compete against each other for resources and therefore not collaborate to exploit the benefits of integration.

The purpose of this study is to determine how transfer pricing can be used for performance management and influence business unit leaders' behaviours. The study identifies the key issues that transfer prices address and how they impact goal congruency. The study is focused on the organisational structure as an impact on the choice of transfer price, the choice of transfer pricing and the incentive scheme used to achieve goal congruency.

6.1 Organisational structure

The BP case studied suggest that transfer prices in a vertically integrated organisation are very important in ensuring that business unit managers behave
in a manner that positively impact the business unit performance at the same time achieve goal congruence in the organisation. It has been established that in order to maintain the vertical integration and the diversification of business units the business units have to be independent from each other. This ensures that the organisations have their own profit improving decisions without affecting the other business unit. This creates competition and ensures business units focus on their core activities. BP uses IST as a vehicle to achieve the independence, as both business units only interact with IST and not each other in their day to day activities and decision making. This creates an internal market. This market becomes the source of information to assist in making the correct economic decisions. However the internal market has to be transparent and the business units have to have all necessary information to make the correct economic decisions.

The structure created by IST allows the business units to be independent without having their own sourcing decisions. The sourcing decisions are all allocated to IST, which sources for the organisation as a whole. The independence created allows for individual business unit measuring. This allows for business units to be measured purely by their profit performance. This also ensures that business units can make their own economic decisions without affecting the other business units. However the structure also creates competition between the business units. It ensures that the organisation, even though integrated, is diverse.

The structure created a need for a performance measure of each business unit. The transfer price is therefore used for performance measurements. The structure however doesn’t allow for goal congruency, it creates competition between business units. This is created by the business units competing for the organisational resources. The competition is created by the complete independence that exists. However the only thing that the business units interact on is the transfer price negotiation. This creates an environment where business
unit managers can argue over the transfer price as they would be trying to ensure they either have the lowest input cost or the highest possible revenue. In order to deal with this situation BP sets the transfer price on the market prices and also has IST as an arbitrator between the manufacturing business unit and the marketing department.

We realise from the organisational structure that the choice of transfer price is dependent on the environment the organisation operates in and the structure that the business units have. The fact that the organisation operates in a competitive markets allows for the use of market related transfer prices. The structure creates an environment where business unit managers can either be competitive or collaborative. In the event where the business units are independent of each other and are expected to compete for organisational resources. This creates the need to benefit from the lowest possible input costs or the highest possible revenue. BP has a business unit that is created to deal with the possible conflicts, this is IST. The business unit acts as an external market where the business units can source from or sell to. IST also provides the necessary market data to ensure that transfer prices are based on realistic prices. In order to assist in the negotiation of transfer prices IST acts as an independent arbitrator. Even though it is part of the business unit it is not affected by the outcome of the transfer pricing negotiations.

The organisational structure creates a competitive environments and not the transfer price. The transfer price is used to measure the performance of the business units. The competition is therefore not created by the transfer price; the transfer price is used to ensure that performance is measured in the fairest possible way, since performance is measured fairly then business unit leaders would act in a manner the benefits the organisation as a whole and not for their own gain. However transfer prices alone do not completely allow for the business unit leaders to act in a manner that benefits the organisation as a whole.
6.2 The pricing decision

The structure at BP is such that pricing decisions are based on the refinery’s ability to produce product, this is an important factor in deciding what price to use. This allows for the inefficiencies of business units not to be transferred between business units. Slof (1999) suggests that when transferring product between business units dual pricing should be used as this offers the most optimum solution for profit maximising and decision making. However in his model he does not consider the creation of internal markets. In the existence of internally markets the choice is driven by the manufacturing business unit’s capacity and the location of constraint in decision making. This is best achieved by making sure that decisions made by business units should only impact their profits and not the other business units. This is what is expected in when business units are completely diverse. However in a collaborative environment decision may have a domino effect on other business units. By setting the price such that the cost associated constraint or decision is correctly allocated.

BP attempts to do this by setting the prices to be based on the refinery constraint and the strategic decision maker. This is displayed in the mogas scenario, where the cost of importing heavy metal free mogas is passed on to the marketing department at the same time ensuring that the inefficiencies of both business unit decisions are not transferred from one business unit to the next. This protects the marketing business unit from inefficiencies created by decisions made by the manufacturing business unit’s decisions. The same protection of business unit is seen with the LPG pricing as well. This suggests that transfer pricing is a function of market structure and production capacity as well.

The transfer prices used at BP allow for business units to completely become independent of each other. This is achieved by using market related prices. The prices are set in such a manner that what ever economic decisions are made by the business units do not affect the other business units. This is achieved by
setting the prices based on the alternative sale of the product and the ability to source internally. The pricing system ensures complete independence of the business units. This is however mostly supported by the organisational structure and the creation of IST. The use of market related prices also ensure that the organisations do not transfer inefficiencies to each other. This therefore means that the transfer price is fair for all business units. The transfer prices however have an impact on the performance measurement of each business unit. This therefore affects the behaviour of business unit managers when negotiating transfer prices. This is because these prices form the basis of the performance contracts of each business units and the employees as well. The transfer pricing system however doesn’t encourage goal congruency as they only affect performance of each business unit and they are set in such a manner that ensures complete independence of the business units. In order to encourage goal congruency business units have to be encouraged to act in a manner that not only benefits the profits of their own business units but also of the organisation as a whole.

The lessons learnt from the BP case are that transfer prices should reflect the market conditions, hence the use of market related prices. The prices should be depended on the product manufacturing capacity as they affect the source of the product. The pricing system should also ensure that business unit decisions do not affect the other business unit performance. This is achievable by using a tiered structure based on the agreement on a supply agreement between business units. If the manufacturing business unit cannot fulfil its commitment to supply the marketing business unit, then the additional cost of sourcing product elsewhere should not be passed on to the marketing department. The additional costs should be accounted for by the manufacturing department. Similarly in the event where the marketing business unit has incremental requirements for product and this is associated with incremental costs, these costs should not be transferred to manufacturing business unit. When this structure is achieved business units therefore can act independently and business unit leaders may
focus on their core responsibilities rather than argue over cost allocation. This structure ensures fairness in transfer prices, with the price being fair business unit leaders are more likely to act in a manner that benefits their organisation without affecting the organisation negatively at all. However this does not encourage goal congruency. It only encourages independence of business units.

### 6.3 Performance measurement and incentives

The performance measurement is important in driving the desired behaviour. This forms the basis of an incentive scheme. It has been established that transfer prices are suppose to be negotiated prior to the setting of performance contracts and incentives. This ensures that the setting of the transfer price negotiations run effectively and efficiently. Once the price has been negotiated the incentive schemes may then be set. This supports Chalos and Haka's (1990) findings; they suggest that in order to ensure that negotiated transfer prices attain the objectives of the organisation; they have to be accompanied by incentive schemes. In the event that there is a change in the market structure or market environment, and the transfer price has to be changed as a result, the incentive scheme would have to be changed. This is because the performance contract is based on the agreed transfer price. The change would make the performance contract invalid if the reference pricing is not changed. This requires that the performance contract be adjusted to reflect the new reference. This process ensures fairness in performance measurement of business units. This supports the theory that suggests that for transfer pricing to achieve goal congruency they have to be perceived to be fair (Ghosh, 2000). Negotiation of transfer prices in diverse organisations is the fairest way of determining transfer prices. This helps resolve to conflicts created by the pricing basis used.

The transfer prices at BP are negotiated. This ensures fairness in the transfer price. This would mean nothing if it were not for the fact that the transfer prices at
BP are used for performance measurement. The transfer price makes the basis of the performance measurement system. The setting of the transfer price is therefore important for all business unit leaders.

To ensure that all business leaders are happy with the transfer price used BP uses a negotiation process to set the price. This price is then used to set targets for the business units. The targets form the performance contract for each business unit. If the performance contract remains constant for the rest of the year unless the transfer prices change and the basis for the performance contract is changed. The fact that the transfer price sets the basis for the performance contract, business unit leaders are encouraged to manipulate the transfer price to favour their business units. His is due to the fact that the business units are compensated based on their performance against the performance contract. The fact that the transfer price is set before the performance contract is agreed ensures that the managers do not attempt to manipulate the transfer price. This ensures that the performance is measured on a base agreed upon by all the business unit leaders. As the transfer price is the basis for the performance contract, the performance contract therefore has to always be updated with any changes in the performance contract.

The question that can be asked is whether the performance contract should be agreed before the transfer price is agreed. BP chooses to use agree the transfer price first before agreeing the performance contract. This ensures fairness in performance measurement as, the targets set for performance are based on an agreed basis. The fact that the performance contract is updated with any change in the transfer price basis ensures that the performance measurement system is always fair. The transfer prices do not however create goal congruency as they only affect the individual performance of each business unit and doesn’t encourage business units to work together to achieve a common goal.
In order to achieve goal congruency an incentive scheme is used. The incentive scheme has to be based on both the business unit’s performance and the organisations performance. Theory suggests that this is the best way to achieve goal congruency, using mixed schemes to motivate managers. The choice of the ratio to be used in the incentive should depend on the manager’s level in the business unit and the degree of interdependency of the business unit. In the event that business units are heavily dependent on each other the incentive should heavily lean on the organisation’s profits and if the business units are independent the incentive should be skewed towards the business unit’s performance. It became apparent that this is also the case when setting individual incentives schemes from managers. Top management who are dependent on each other to negotiate the transfer price should not be incentives based on business unit performance alone. A significant portion should be based on business units performance to ensure that the business unit delivers on the set targets, and the other portion should be based on the organisations performance. In the case of middle management it is important that their focus is on the operations of the business unit and ensuring that they deliver on their targets, therefore the incentive used for them should be based largely on the business unit performance. This should be significantly larger than that of top management. This is in line with the purpose of an internal market, which ensure that business units focus on their core activities.

The incentive schemes used at BP suggest that transfer prices only affect a certain portion of the incentive. That portion is to ensure that the business units perform to the best of their ability economically. The transfer prices do not therefore encourage any form of goal congruency; instead they only affect the portion of the performance contract that is based on business unit performance. The goal congruency is achieved with the portion of the performance remuneration that is not linked to the performance of the business unit alone but that of the organisational performance as a whole. The larger the portion of the remuneration is based on organisational performance the more goal congruency
is achieved. Business unit leaders showed a larger interest in the organisational performance than middle management. The difference between the two management levels is that business unit leaders have a significant portion of their remuneration based on the performance of the organisation, while the middle managers less of their remuneration based on the performance of the organisational performance. This is because the responsibilities of the business unit leaders and middle management are different. The business unit leaders are involved in the setting of the transfer prices while the middle management are use transfer prices as an input to their business units.

The study shows that transfer pricing doesn't encourage goal congruency. However if the pricing is set correctly it ensures that business units act independently. The setting of the transfer price however is very dependent on the structure of the organisation and the environment that the organisation operates in. The independence of business units in a vertically integrated organisation is not only achieved by having a freedom to source and sell product externally. This can be achieved with the creation of an internal market which interacts with the marketing and manufacturing business units separately. This ensures that business units are kept separate and independent. This structure creates competition between business units. The creation of competition suggests that business units therefore have to compete for resources. The business units therefore are expected to perform independently and are judged based on their individual performance.

The transfer price affects the performance measure of a business unit as it forms either cost or revenue for the business units. The transfer price therefore forms the basis of a performance measurement system. The transfer price has to be agreed before the performance contract is agreed. In the event that the transfer price changes the performance contract has to be changed as well. This ensures that the measurement of performance is always fair. However this still does not encourage goal congruency in the organisation. It only ensures that business
units do not spend countless hours arguing about where costs and revenue should be allocated for performance measurement purposes.

The manner in which organisations can be congruent is if there exists an incentive scheme that ensures that business unit managers act in a manner that profits the organisation as a whole.

Business unit leaders and their behaviour is affected by two factors in organisations; the performance measurement process and the compensation that they receive. In order to achieve desired results (goal congruency and business unit performance) the two methods are used. The first method is to ensure that business unit managers are incentivised to improve business unit profits, this is done using performance reward based on performance. The second is achieved using a fair performance measurement.

The performance measurement system is based on the transfer price used. According to the study it is found that in order for the performance measurement to be considered to be fair the base on which it is set has to be considered fair. The base used is essentially the transfer price. If this is perceived to be fair by business unit leaders then the performance measurement is also perceived to be fair. The fact that the performance contract is changed with the change in the transfer price ensures that the system is as fair as possible. This structure encourages business unit leaders to focus on their core activities rather than endless hours arguing over cost and revenue allocation.

The incentive used to reward performance is based on the performance of the business unit and that of the organisation as well. The business unit performance measure is used to ensure that business unit managers focus on achieving their core objectives. The organisational measure ensures that the business unit leaders do not improve their business unit profits at the expense of the organisation as a whole. This encourages goal congruency. From the study it is
found that the proportion of the performance compensation that is linked to organisational performance is linked to the level of goal congruency that can be achieved by the organisation. Transfer price systems do not affect the behaviour of the business unit directly, but indirectly through the performance measure of the business unit. However in order to ensure that the performance management is done correctly, the transfer price has to ensure independence of business unit leader’s decisions. The decisions they make shouldn’t affect the other business units.

The study reveals that two things affect the behaviour of the business unit leaders, the performance measurement and the incentives that they receive. This is however dependent on the organisational structure and level on independence of each business unit in an organisation.

6.4 Limitations and further research

The study focused on a single organisation. Different organisations use different structure in the drive to improve efficiencies and positively impacting profits. The BP structure is just one of the possible organisational structures that can be used.

The study being a single case has not considered different organisational structures. Not all organisations who are vertically integrated use internal markets to manager their transfer pricing systems. Organisations such as Royal Dutch Shell do not use the same structure yet they attempt to achieve similar results. A comparison would serve the purpose of ensuring that the differences are clearly understood and that the best structure could be determined for vertically integrated organisations in the oil industry.
The incentive scheme used at BP is not a standard incentive scheme used in every organisation. A comparison of incentive schemes in similar business structures would give a better understanding of the most appropriate incentive scheme to use.

The case is limited in that it is a single case study and cannot be generalised easily to a larger population. The study had been focused at trying to replicate or provide evidence that transfer pricing systems in isolation do not achieve goal congruency as predicted by theory. A multi case study approach would have been helpful in gathering more data and it would have been easily generalised for a larger population.

The goal in pursuing this research was to understand how vertically integrated organisation manage the complexities of transfer pricing and the agency problem created by decentralisation. The study attempted to determine how and why managers handle the complexity of the transfer pricing polarity in vertically integrated organisations. The evidence in the study suggests that the management of management behaviour in vertically integrated business units is impacted by the organisational strategy, the choice of transfer price and the incentive scheme used for the organisation. These factors cannot exist in isolation, as they will not achieve the required objectives. The evidence collected also suggest that goal congruency in the organisation is achieved differently at different levels in the organisation. A further study to understand the effect of transfer pricing at different levels of organisational structures could help in the understanding of the relationship between decision making, the management level and transfer pricing method used.
7 References


Uliana, E., “Transfer Pricing in an Imperfect market: A Case Study of Productivity Accounting" Unpublished article, University of Cape Town


8 Appendixes

8.1 Interview questions

1. What is your understanding of the organisational structure, and how your business unit fits into the structure?
2. How would you define the relationship between your business unit and the rest of the organisation? (interdependency)
3. How is your business unit measured?
4. What elements on your performance contract relate to issues outside your business unit?
5. Do you consider the performance contract process to be fair?
6. What is your understanding of transfer pricing?
7. Is there a relationship between the transfer price and your performance contract?
8. What influence do you have on the setting of the transfer price?
9. What portion of your performance bonus is based on your business unit’s performance?
10. What portion of the performance bonus is related to the performance of the organisation as a whole?
11. Do you view the process of performance bonus allocation to be fair?
8.2 Responses from interviewees

Please note that the answers given by the interviewees are not captured word for word. The general theme of the answer is captured.

1. What is your understanding of the organisational structure, and how your business unit fits into the structure?

<table>
<thead>
<tr>
<th>Top Managements</th>
<th>Middle managements</th>
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</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>We are produce product for BP as a whole and we have a relationship with Marketing through IST</td>
</tr>
<tr>
<td>Marketing</td>
<td>Marketing purchases finished product from IST and IST buys the product from manufacturing. I know that IST also buys whatever the refinery cannot produce for us.</td>
</tr>
<tr>
<td>IST</td>
<td>IST is the in between business unit. We do not make any money all the money we make gets dividend to the business units we optimise.</td>
</tr>
<tr>
<td></td>
<td>Our purpose of existence is to optimise the value chain. We essentially create an internal market for marketing to source from and for manufacturing to sell to. We optimise the entire value chain from crude to finished product.</td>
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<td></td>
<td>We source product from manufacturing and IST optimises the logistics of moving product to the correct location, they make sure we have the product when we need it.</td>
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2. How would you define the relationship between your business unit and the rest of the organisation? (interdependency)

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<tr>
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<th>Top Managements</th>
<th>Middle managements</th>
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<tbody>
<tr>
<td>Manufacturing</td>
<td>We depend on each other at the sourcing and buying level.</td>
<td>We are only dependent on IST to provide us with crude oil and to distribute the finished products we make.</td>
</tr>
<tr>
<td></td>
<td>However we are all independent business units at the same time.</td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td>BP has a refinery that supplies us. Primarily most of our demand comes from the refinery so I would say our dependency is implicit. We do enjoy competition with each other.</td>
<td>From the value chain perspective we are dependent but we are separate business unit. I think we would still exist in the absence of manufacturing, even IST.</td>
</tr>
<tr>
<td>IST</td>
<td>We essentially coordinate most of the relationships between the business units. The business units themselves wouldn’t see the dependency but that is because IST maintains the link between each business unit.</td>
<td>Our every day role requires us to interact with the other business units. We offer information to them and they give us information. This is the information that is critical for making economic decisions for the business.</td>
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3. How is your business unit measured?

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<th><strong>Top Managements</strong></th>
<th><strong>Middle managements</strong></th>
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</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>We are measured on our ability to keep the refinery online and maximise refinery margins. This of course depends on what the market environment looks like</td>
<td>Performance contracts agreed every year. The organisation sets targets for every business units.</td>
</tr>
<tr>
<td>Marketing</td>
<td>We are measured on sales profits.</td>
<td>How much we make from selling product into the market. Sometimes we are measured on how many stock outs we have in a year. That is our ability to keep the industry supplied.</td>
</tr>
<tr>
<td>IST</td>
<td>IST is measured on the value add it brings to the BP. This is the value created by optimising the value chain. Most of what we are measured on doesn’t sit in our performance bucket it sits in the other business unit buckets.</td>
<td>We are set a target every year and we have to meet that. In trading we are measure on the trading profits we make.</td>
</tr>
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</table>
4. What elements on your performance contract relate to issues outside your business unit?

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<th></th>
<th>Top Managements</th>
<th>Middle managements</th>
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</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>10%</td>
<td>None</td>
</tr>
<tr>
<td>Marketing</td>
<td>Between 10% and 15%</td>
<td>None, except the relationship maintenance with IST</td>
</tr>
<tr>
<td>IST</td>
<td>Our performance contract is done in conjunction with manufacturing and Marketing. So a large portion it is based on external activities.</td>
<td>Everything is based on what we do for marketing and manufacturing</td>
</tr>
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</table>

5. Do you consider the performance contract process to be fair?

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<th>Top Managements</th>
<th>Middle managements</th>
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<tbody>
<tr>
<td>Manufacturing</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Marketing</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>IST</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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</table>
6. Is there a relationship between the transfer price and your performance contract?

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<thead>
<tr>
<th></th>
<th>Top Managements</th>
<th>Middle managements</th>
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</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Transfer prices affect the revenue we generate</td>
<td>Direct impact on our profits</td>
</tr>
<tr>
<td>Marketing</td>
<td>It affects our costs and result is performance</td>
<td>I ma not sure.</td>
</tr>
<tr>
<td>IST</td>
<td>We are measured on that. What ever price manufacturing supplies at we will hand over to marketing at the same price, so the net effect is zero for our department. The same cannot be said for marketing and manufacturing though. The only time IST is concerned about transfer price is when we source additional product for marketing but then again marketing pays that cost and on us. Additional question: So how are IST inefficiencies not transferred? Any commercial loss as a result of IST is attributed to IST as a whole and not to the other business units.</td>
<td>Not much of an effect I only consider this when I am looking to make money on the back of Sapref being long product.</td>
</tr>
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</table>
7. What influence do you have on the setting of the transfer price?

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<th>Top Managements</th>
<th>Middle managements</th>
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</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Participate in the negotiations</td>
<td>None</td>
</tr>
<tr>
<td>Marketing</td>
<td>We negotiate every year</td>
<td>None</td>
</tr>
<tr>
<td>IST</td>
<td>IST provides market information and we also arbitrate the negotiation process.</td>
<td>none</td>
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8. Do you view the process of performance bonus allocation to be fair?

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<th>Top Managements</th>
<th>Middle managements</th>
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</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Marketing</td>
<td>Yes</td>
<td>Not really a part of our performance bonus is based on things we have no control over. If manufacturing has a fire and they have a bad performance for the year we shouldn’t take a hit for that.</td>
</tr>
<tr>
<td>IST</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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</table>