

Evaluating the implementation of the strategic thrust to improve labour productivity in a platinum mining company in South Africa

Ntokozo Phillip Ngema

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ABSTRACT

Often the objectives that are set in an organisation are not implemented as planned; organisations usually succeed in creating a great strategy that promises to yield good shareholder value but ends up realising only a part of the benefit that was promised. Inability to implement what has been created as a strategy is the main reason why good strategy fails.

This research report aimed to evaluate the gap between the design of the labour productivity, the new strategic thrust at Anglo American Platinum and the implementation of it.

A themed content analysis was conducted on the responses and other supporting information gathered from eleven semi-structured interviews. All the eleven respondents are senior managers responsible for various portfolios at Anglo American Platinum Mines. The themes and common factors across all respondents confirmed the theory established during the literature review.

The research findings confirm that rigorous planning is the first step toward reducing the strategy-to-execution gap; they also confirm several factors that support strategy execution i.e. top management involvement, aligning reward and recognition with the strategy execution, having clear priorities and performance management.

The key message from this research study is that organisations need to identify all the resources required for implementation and deploy them on time to support the programme.

DECLARATION

I, Ntokozo Phillip Ngema, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

NTOKOZO PHILLIP NGEMA

Signed at

On the day of 20.....

DEDICATION

I dedicate this report to my late grandmother, Ntombizonke Mdunge. I wish you were around to witness this moment, the moment you predicted it would happen one day. You gave me your heart and soul and I will forever miss you.

ACKNOWLEDGEMENTS

First and foremost I would like to thank God for affording me the opportunity to complete this degree, with Him all is possible. To my lovely wife and kids, I don't have words to express my gratitude to you, the love and understanding you have shown me over the last three years is truly amazing, I love you all.

My supervisor, Conrad Viedge, thank you for the support and guidance, I missed the plot several times and you managed to get me back on track, I truly admire your patience, I thank you.

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CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The purpose of this research is to critically evaluate the implementation of a labour productivity programme which is a new strategic thrust at Anglo American Platinum.

1.2 Context of the study

In 2012, Anglo American Platinum announced to the market that it was in the process of reviewing its South African assets with the purpose of coming up with a strategy which is fit for the prevailing market conditions.

The review was concluded towards the end of 2012. In January 2013, the findings and the way forward were communicated to all the stakeholders. There were a number of deliberate actions that the company promised to undertake, these were aimed at:

- Improving revenue
- Cost management
 - Cost reduction
 - Cost containment

All the new deliberate actions and initiatives arising from the new strategy are now known as “Anglo American Platinum Strategic Thrust”. The labour productivity is the umbrella name given to those initiatives aimed at improving the company’s

productivity as a whole, these initiatives had highest profit benefit promises amounting to more than R1, 5 Billion in three years (figure: 1 below).

This is driven by the fact that the labour component makes up to 60% of the total working cost in conventional platinum mining, so any improvement in labour output will result in a positive spin in profit margins.

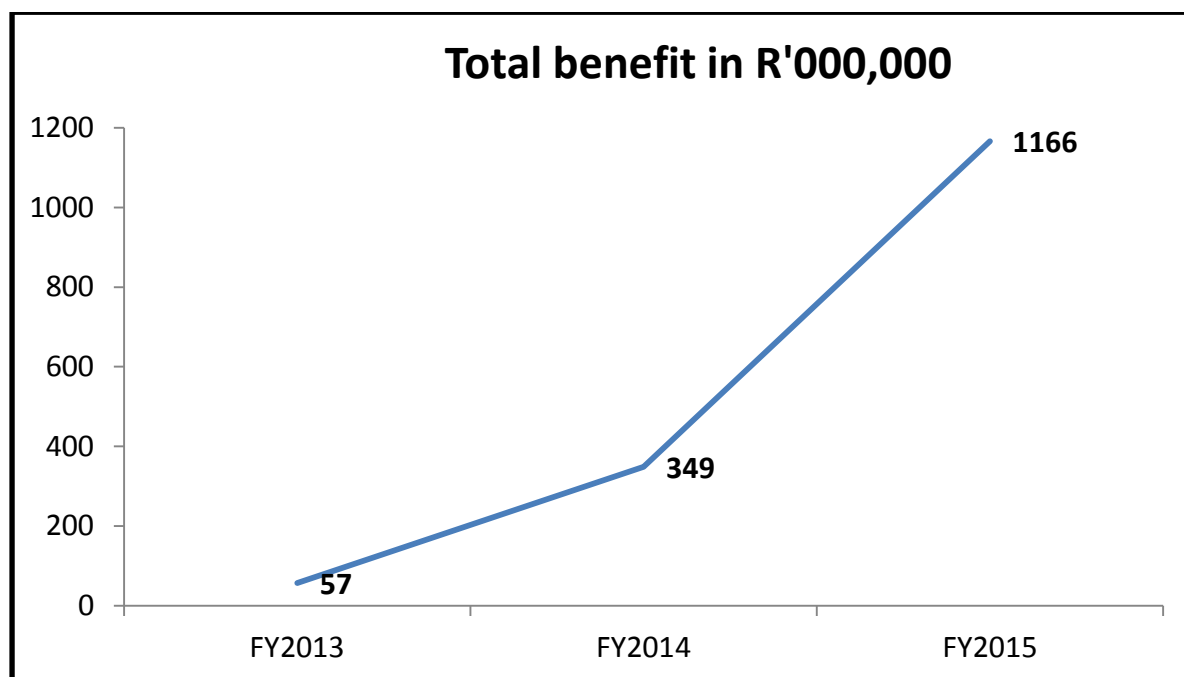


Figure 1: Total expected profit benefit from labour productivity thrust (source: Anglo American Platinum Labour Productivity Business case).

A challenge facing platinum producers is the shrinking profit margin driven by the lower metal price (Figure: 2 below) and increased labour cost. The platinum price had a stable growth from 2001 until the global market crash in 2008. Since then, it has been very unstable, hovering between USD1200-1400 per oz. which equates to USD800 per oz. loss compared to the higher prices that were obtained in 2008.

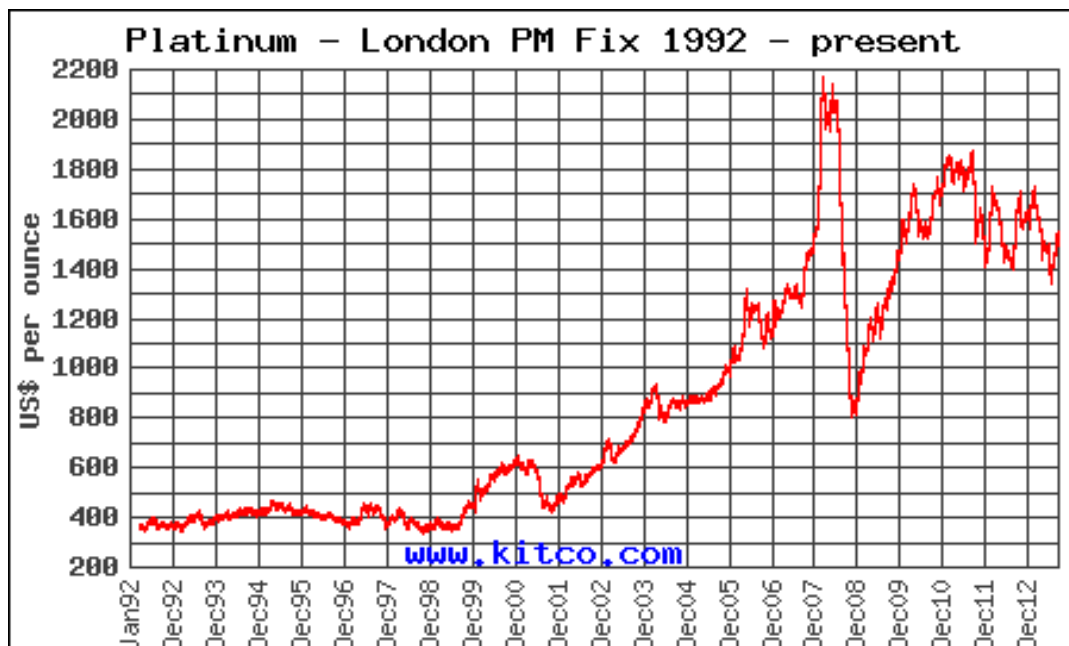


Figure 2: Platinum Markert Price (source:Kitco.com).

The article by Boegman of PWC published in an accounting journal in 2012 pointed out the issue of shrinking margins being driven by:

- lower price metal price
- and high wage demands.

Unreasonable wage demands present the highest risk in platinum mining in the South African Platinum Industry (Boegman 2012).

1.3 Problem statement

1.3.1 Main problem

The problem researched is the gap between the design of the labour productivity strategic thrust and the implementation thereof.

1.4 Significance of the study

The study fills a gap in that there is no significant research conducted to evaluate strategy implementation in the South African Platinum mining industry.

1.5 Delimitations of the study

The study was conducted at multiple operational sites of Anglo American Platinum. It focused on the newly implemented strategic thrust; labour productivity.

The study was conducted by:

- Exploring the questions from the perspectives of:
 - Mine General Managers
 - Mine Finance Managers
 - Mine Business Improvement Managers
 - Group Senior Principal Mining engineers
- The perspectives of other main stakeholders i.e. trade unions, workers representatives, governments and general employees were not explored.
- The research took place in Rustenburg, North West province and in Amandelbult and Swartklip, Limpopo province.

1.6 Definitions of terms

For simplicity, most mining terms are defined in a sentence or paragraph where they are being used.

1.7 Assumptions

- The researcher is consistent throughout the research interview process by insuring accuracy while taking notes and while asking probing questions. Should this not be adhered to, data would be compromised.
- Respondents are assumed to have an interest in the research and have reasonable knowledge in the subject at hand. Failure to comply with this assumption would affect the data consistency.
- Respondents are honest and they do not exaggerate or understate as this would compromise the quality of the data presented.

2 CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This literature review focuses on strategy and strategy execution. It seeks to establish factors and best practice when it comes to narrowing the gap between strategy and strategy execution. "Strategy is very complex and yet crucial for the survival of an organisation, therefore it is very important for the organisation to have a rigorous strategic management system to assist with the implementation" (Wheelen & Hunger 2004, p13).

2.2 Strategy

In most cases, the definition of strategy is given very broadly with all three legs of strategy intertwined (Wheelen & Hunger: 2004, p13). This study evaluates issues specific to business strategy, some functional strategy issues might be highlighted especially when it comes to the sustainability, training and development required to ensure business strategy becomes a success. Below are the definitions that are given by Wheelen and Hunger on the three legs of strategy.

Corporate strategy defines the organisation's overall direction. Its focus is the three main categories: growth, stability and retrenchment (Wheelen & Hunger 2004, p13).

Business strategy focuses on the internal processes of the organisation. It emphasizes improving the competitive positions i.e. efficiencies and quality of products (Wheelen & Hunger 2004, p13).

Functional strategy looks at sustainability. How can an organisation maintain its competitive edge? This is where research and development comes in (Wheelen & Hunger 2004, p13).

2.2.1 Defining Strategy

Wheelen and Hunger (2004, p13) suggest that strategy forms a comprehensive master plan allowing corporations to achieve their mission and objective. They further state that strategy should enable the organisation to maximise its competitive advantage and to minimise its competitive disadvantage.

The explanation given by Wheelen and Hunger is aligned to what Porter said about competitive strategy. Porter (1996) states that competitive strategy is about being different, deliberately choosing a different set of activities to deliver a unique mix of value.

“The awareness of five forces can help a company to understand the structure of its industry and stake out a position that is more profitable and less vulnerable to attack” (Porter 2008).

Porter states that the awareness of these forces enables the organisation to formulate solid strategy.

Porters' five forces, as presented in figure: 3 below can be summarized as follows:

Supplier's power:

This analysis is done so that the business can assess how easy it is for the suppliers to drive or control the price (Porter 2008). Factors to be observed are as follow:

- Uniqueness of the product they supply
- The number of suppliers for each key input
- Cost of switching from one supplier to another

Porter suggest that the fewer the key suppliers the more powerful they are.

Buyers' power:

According to Porter (2008), the following need to be observed in order to assess the buyer power

- What cost will the buyers incur should they switch from your product and service to those of your competition?
- Number of buyers of your product or service
- Importance of the buyer of your services

Porter (2008) argues that a business that has to deal with a few powerful buyers is more vulnerable than the one that has many but less powerful buyers. Powerful buyers can set the terms and price they want to pay for your product or services.

Competitive rivalry:

In a situation where the business has equally capable rivals, it means less power over buyers and suppliers, if the suppliers are not satisfied with your pricing, they can always approach your rival (Porter 2008).

Threat of substitution:

If the customers can find an alternative substitution, that is equal or more variable than what the business is offering. This weakens the power of that business as customers can always go for the alternative if the price is right (Porter 2008).

Threat of New Entry:

If there are few economies of scale in place, and little protection of the key competitive advantage of the business, it means the risk of the new rivals is very high (Porter 2008).

Porter's Five Forces Model of Competition

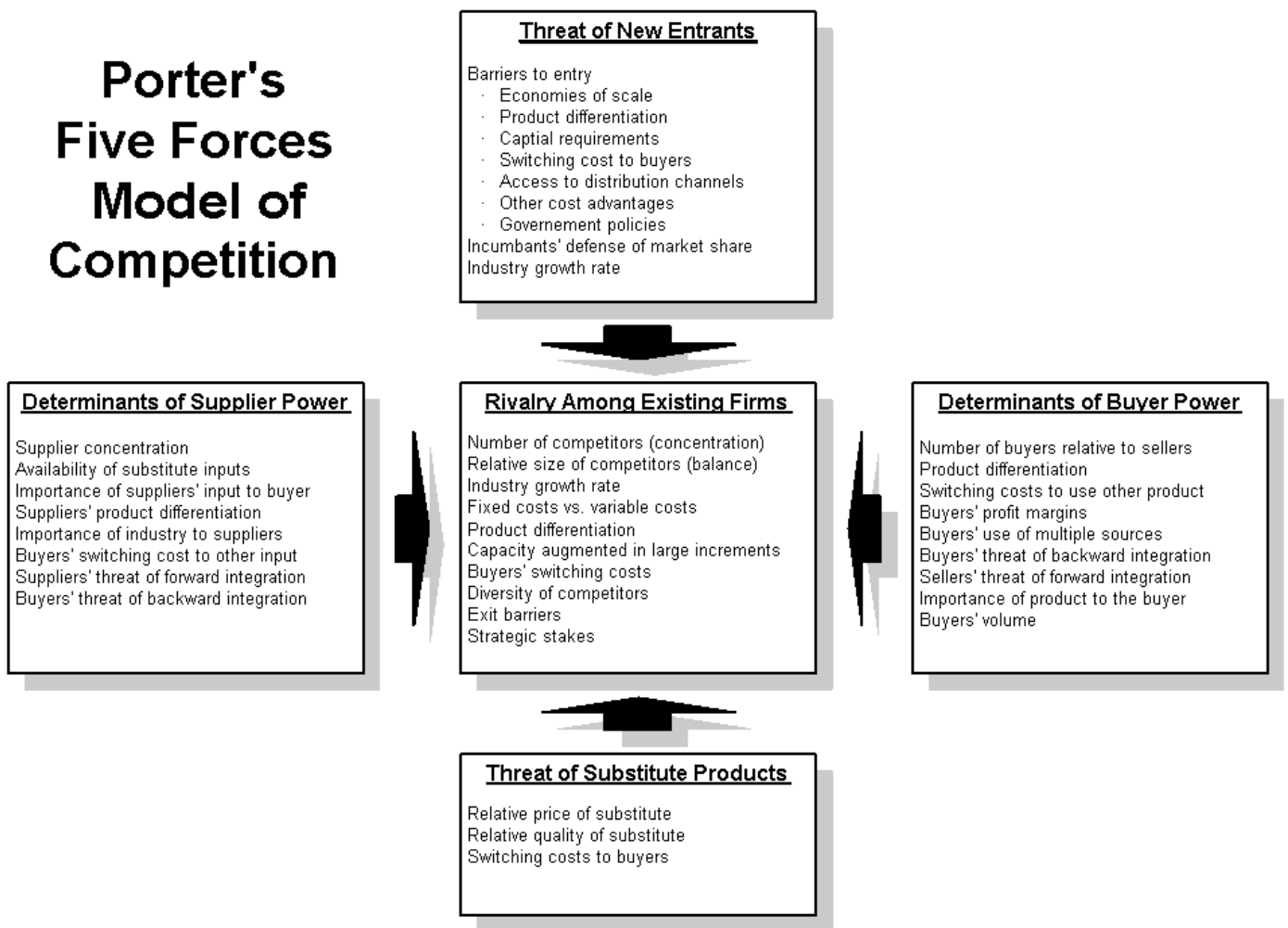


Figure 3: Porter's five competitive forces that shape strategy (source:strategy4u.com).

2.2.2 Strategic Management

But how does the organisation develop the strategy? This question is well answered by Wheelen and Hunger, where they defined the strategy management process. Wheelen and Hunger (2004, p3) define strategic management as the set of managerial decisions and actions that determines the long-run performance of the

organisation. It includes environmental scanning, strategy formulation, strategy implementation and strategy evaluation (see figure: 4 below).

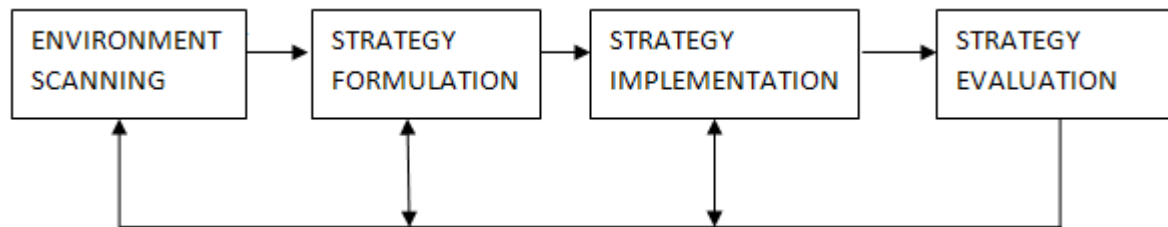


Figure 4: Components of Strategic Management process (Wheelen & Hunger 2004).

I. Environmental scanning

The purpose of this exercise is to identify the strategic factors, those external and internal elements that will influence the future of the organisation (Wheelen & Hunger 2004, p.9).

SWOT analysis is an effective tool to conduct environmental scanning, both for the external and the internal environment (Wheelen & Hunger 2004, p.9).

II. Strategy Formulation

According to Wheelen and Hunger (2004), once the environmental scanning has been concluded, the next step is to develop long-range plans for the effective management of the environmental opportunities and threats, in light of the organisation's strength and weaknesses. The process of strategy formulation includes defining the corporate mission, objectives and developing strategies.

III. Strategy Execution (Implementation)

Wheelen and Hunger (2004, p.15) suggest that strategy implementation is the process by which strategies and policies are put into action through the development of programmes, budgets and procedures.

a. Programmes

A programme is a statement of the activities or steps to accomplish a single-use plan (Wheelen & Hunger, 2004, p.15). Wheelen and Hunger argue that the purpose of the programme is to ensure an action orientated strategy.

A good example of the programme given by Wheelen and Hunger is that of PepsiCo; as an organisation PepsiCo embarked on a new strategy that was to focus on increasing supermarket sales volumes. The programme that came out of this was to position Pepsi soft drinks next to Frito-Lay chips so that shoppers would be tempted to pick up both products when they chose one.

One of the useful tools to ensure that programmes are well thought out is the matrix of change shown in table: 1 below. It helps organisations to identify problem areas where programmes are likely to interfere with each other or where they are likely to interfere with any other day-to-day activities.

Table 1: The Matrix of change (Wheelen & Hunger 2004, p 196)

Feasibility	Is the transition likely to be difficult; are the proposed programmes a coherent and stable system?
Sequence of execution	Where should the change begin, does the sequence affect the success?
Location	Site readiness for the transition
Pace and Nature of change	How should the change be? Slow or fast incremental or radical.
Stakeholder evaluation	What about stakeholder engagement, is everyone on board?

b. Budgets

A detailed costing is needed for each of the programmes to determine their practicality as well as their feasibility (Wheelen & Hunger 2004, p 15).

c. Procedures

Sometimes termed standard operating procedures (SOP) are sequential steps describing how particular tasks should be performed (Wheelen & Hunger 2004, p.15). Procedures are critical in strategy execution as they ensure standardisation, adds Wheelen and Hunger.

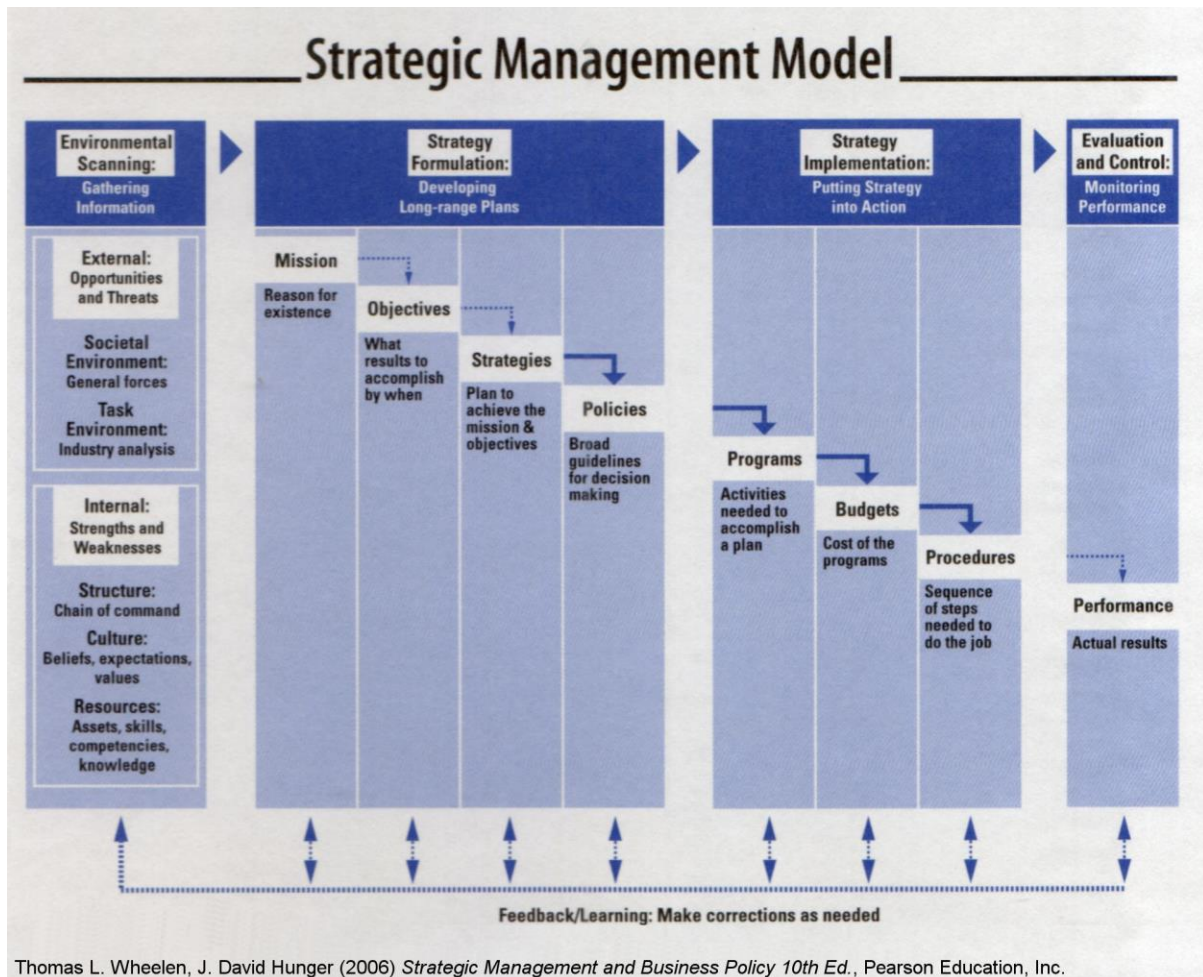


Figure 5: Strategy Management Model (Wheelen & Hunger 2006).

IV. Strategy Evaluation and Control

Evaluation and control process is there to ensure that the organisation achieves its strategic goals (Wheelen & Hunger 2004).

Wheelen and Hunger suggest the five critical steps to be followed to ensure an effective evaluation and control process. (See figure 6: below)

Step1: Determine what to measure

Top management need to identify the key performance indicators or processes that need to be measured or monitored for the success of strategy (Wheelen & Hunger 2004, p.242).

Step2: Establish standards of performance

The standard that stipulates acceptable and unacceptable performance must be in place Wheelen and Hunger refer to this as tolerance range.

Step3: Measure actual performance

Performance measurement must be done at predetermined times (Wheelen & Hunger 2004).

Step4: Compare actual performance with the standard

When the desired performance has been achieved and sustained, then measuring processes can stop (Wheelen and Hunger 2004).

Step5: Take corrective action

If the performance is outside the desired standard, management should intervene to correct the situation.

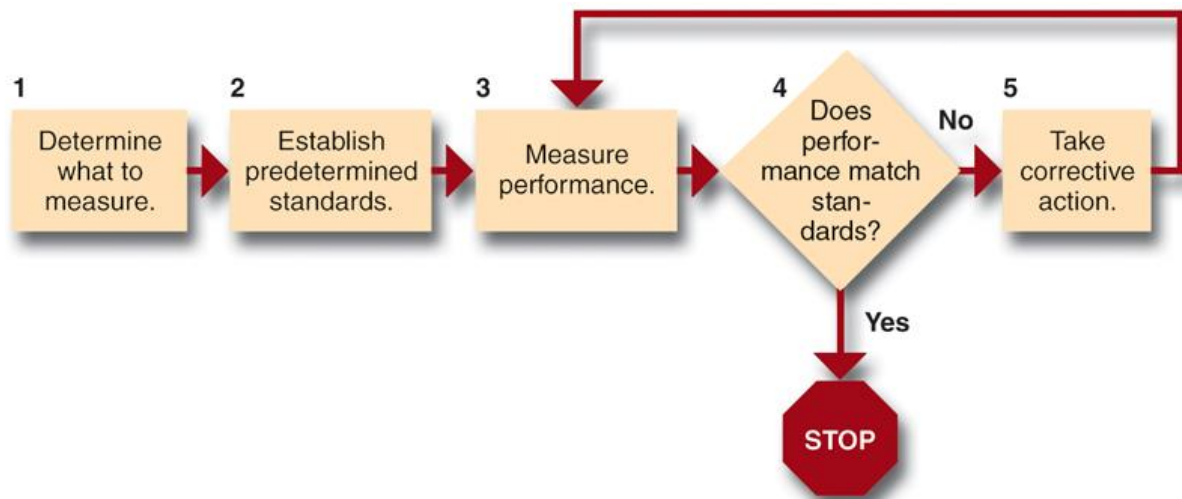


Figure 6: Evaluation and control process (Wheelen & Hunger 2004, p.242).

2.2.3 Evaluating an implemented strategy

Schmidt (1988, p. 15) gives a practical tool on how managers should evaluate the strategy (see Figure 7: below). This tool reveals why strategy fails at execution, six causes of strategy execution failure are also discussed.

- *Poor communication*
Management failing to communicate strategy/strategies effectively
- *Poor commitment of operating management*
Management not aligned with the strategy, resulting in no commitment to support the strategy.
- *Failure to establish proper feedback mechanism*
Management failed to put a monitoring or measuring system in place which will constantly give feedback on implementation of the strategy.
- *Invalid planning bases: incorrect strategy formulation*
Sometimes the implementation failed because the strategy formulation had flaws, maybe wrong assumptions or scenarios were used.
- *Inconsistent functional plans*

It is important to align the functional strategy (as defined above) with corporate strategy and business strategy, failure to do so will compromise the whole execution plan.

- *Incorrect assessment of resources requirement*

One of the common mistakes in strategy execution is failing to allocate the resources necessary to support the execution process.

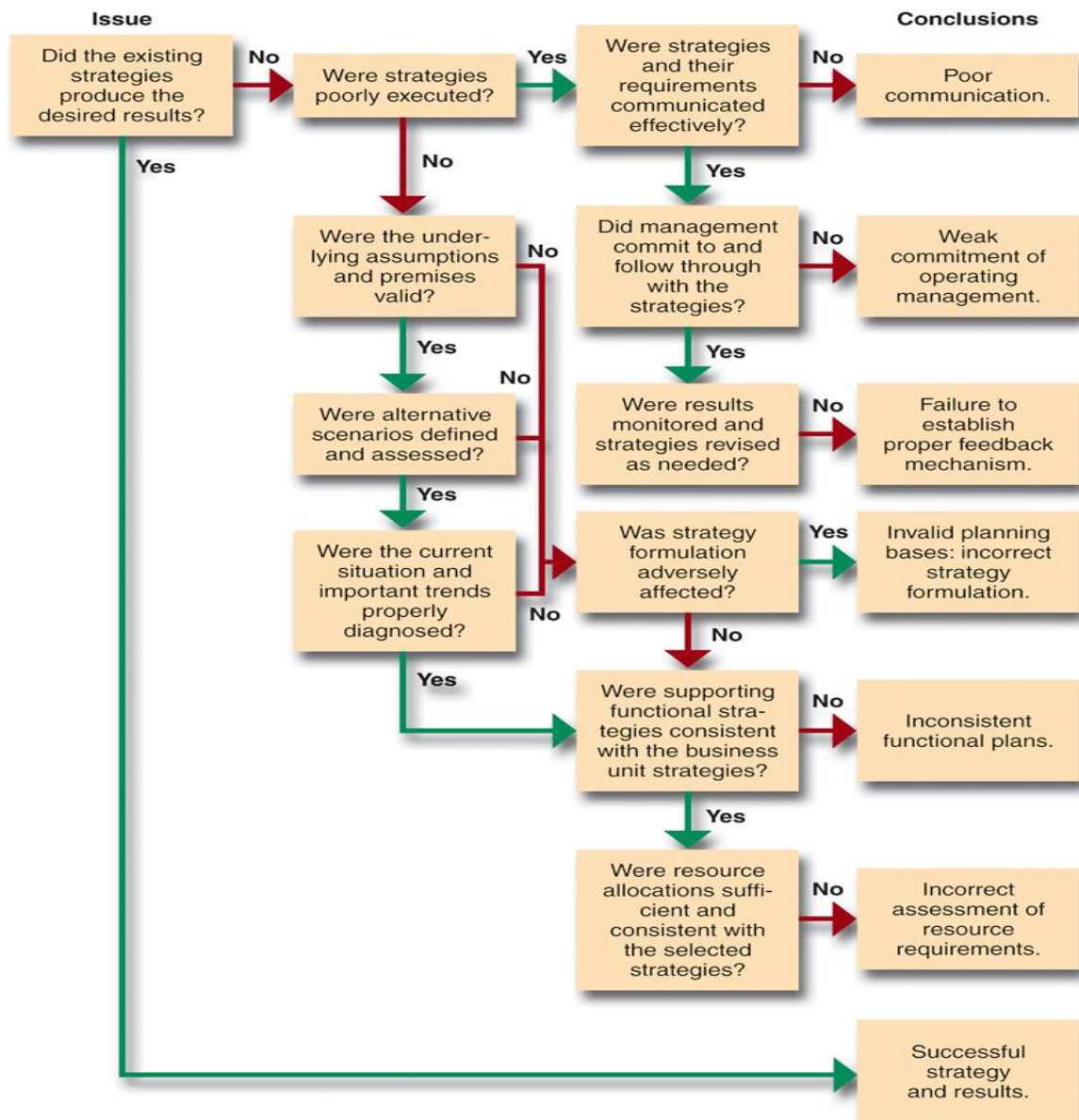


Figure 7: Schmidt (1998, p. 15).

2.3 Closing the strategy to execution gap

2.3.1 Masters of strategy execution

“Most companies that are successful in closing the strategy-to-execution gap or strategy-to-performance gap, do so by focusing their energy on planning and execution and use that information to align their employee capabilities” (Mankins & Steele 2005).

According to Mankins and Steele, these companies follow seven rules that they apply in planning and execution in order to eliminate performance shortfall:

Rule1: *Keep it simple, make it concrete*

CEOs interviewed by Mankins and Steele suggested that strategy should be simple and clear so that the lower levels of the organisation can understand it and be able to put executable plans in place that are aligned to the strategy.

Rule2: *Debate assumptions, not forecasts*

Mankins and Steele discovered that the high performance companies spend time on business assumptions rather than on debating the forecast. Traditionally, most companies spend a lot of time debating what the business unit's target should be. The operational management will be pushing for lower targets so that they can make big bonuses and the executives will be pushing for stretch targets in order to meet the long term plan, explained Mankins and Steele. Because the time is not spent on conducting proper analysis about what the economic conditions are likely to be in the future and what operational performances can be achieved, the short term plan ends up being totally disconnected from the long term plan (Mankins & Steele 2005)

Rule 3: *Use a rigorous framework, speak a common language*

Another discovery by Mankins and Steele was that most of these companies manage to align the corporate centre to business units. They talk the same language when it comes to market trends and the assumptions.

Rule 4: *Discuss resources to be deployed early*

One of the main reasons of the performance shortfall is the company's inability to deploy the critical resources on time. Mankins and Steele have done extensive research on Cisco, one of the high performance companies that have cross-functional teams that specifically look at resource deployment.

Rule 5: *Clearly identify priorities*

Strategy is delivered through forming and including actions of tactics. Some of these tactics are crucial, some are not. In successful companies, all decision makers i.e. executives and operational management, are aware of which tactics are the priority in the business (Mankins & Steele, 2005).

Rule 6: *Continuously monitor performance*

Monitoring of the key performance indicators and holding regular operational reviews have eliminated performance shortfall at Textron (Mankins & Steele, 2005). According to Mankins and Steele, high performing companies use real-time performance tracking to spot and correct the flaws in the plan.

Rule 7: Reward and develop execution capabilities

Motivation is the key, high performance companies always make sure their workforce is motivated by focusing on management and personal development (Mankins & Steele 2005)

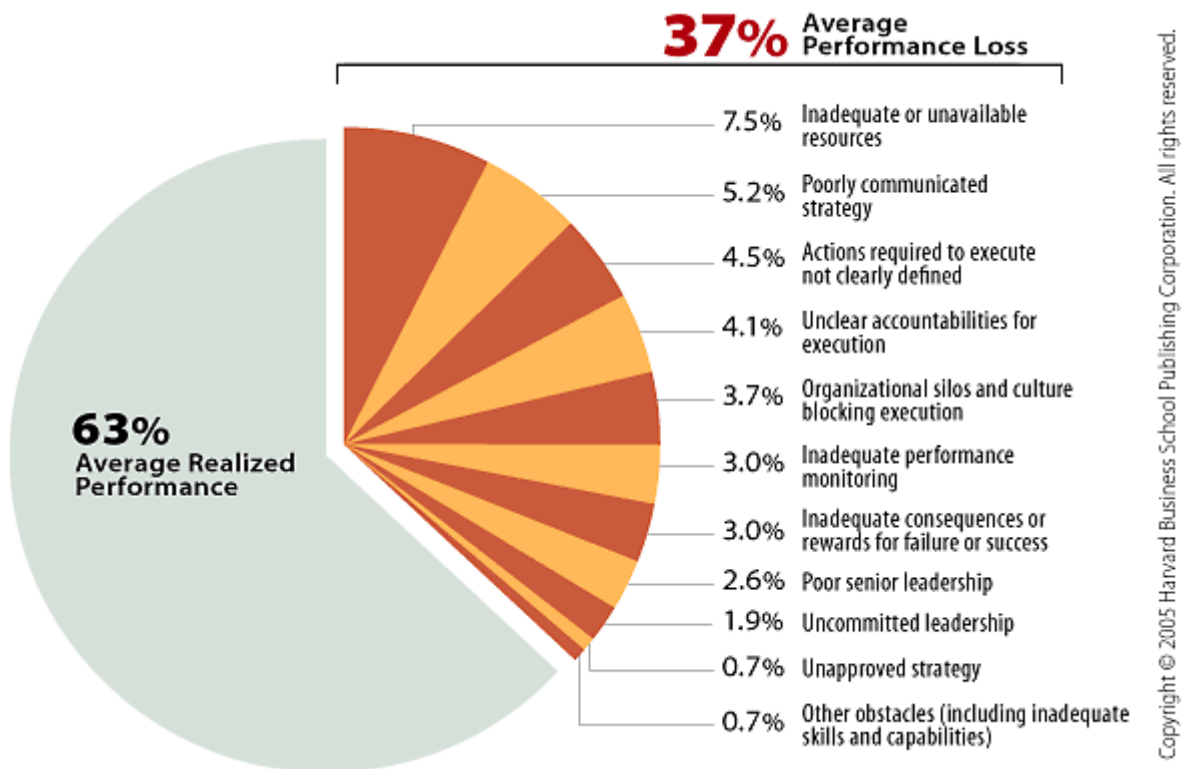


Figure 8: Typical companies only realised 63% of the strategy potential value (Mankins & Steele 2005).

2.3.2 Poor strategy execution

Neilson, Martin and Powers (2008) discovered that the companies that are poor in strategy execution also share the following dilemmas:

- The roles and responsibilities are not clearly defined - they find that although the roles and responsibilities were outlined, managers at different levels were not clear on which role or responsibilities applied to them.

- Employees did not understand the decisions that were theirs to make.
- The performance and reward process were poorly linked.

2.3.3 *Strategy statement*

“Because strategy translates to actions that will soon be implemented, it is crucial for an organisation to have a clear strategy statement” (Collis & Ruskstad 2008).

They further state that a clearly defined strategy statement has two benefits:

- It makes the strategy formulation very easy because members of the senior leadership know what they are talking about.
- The strategy implementation is much simpler as the strategy can be communicated and be translated to language understood by all.

Collis and Ruskstad added that a good strategy statement consists of three critical elements:

- Objectives,
- Scope (which is geographic location and vertical integration) and
- Advantage.

The strategy statement should capture why the customers should buy your product. It should also explain why your product is better than that of the competitor (Collis & Ruskstad 2008).

2.3.4 *A way to unearth the root causes of strategy blockers*

An alternative view is given by Beer and Eisenstat (2000). After conducting a series of researches on strategy implementation, they came out with the five steps process that assists the organisation to execute strategy.

Step 1: Create a statement about direction

According to Beer and Eisenstat (2000), the senior management team has to ensure that the strategic statement is articulated in a manner that links it to:

- the competitive environment
- performance goal,
- business strategy
- the need for organisation and culture change

Beer and Eisenstat further insist that such statement should be used to communicate to the broader organisation and to explain the logic behind the strategy.

Step 2: Collect data on barriers and strengths

Beer and Eisenstat recommend the appointment of the task team that should be composed of a cross-section of well-regarded managers, this should be managers two levels below the senior management team, the task team will conduct interviews inside and outside the organisation in order to highlight organisation arrangements and management practice that hinders strategy execution (Beer & Eisenstat 2000).

Step 3: Develop an integrated plan for change

The task team analyses the information into major themes and present the findings to the senior management team (Beer & Eisenstat 2000).

Senior management uses the information to:

- a. Analyse the underlying causes of the barriers to execution.

- b. Develop the broad vision to redesign the organisation in a way that will support the execution of the strategy.
- c. Redefine its role, responsibilities and decision making process.
- d. Lastly, senior management has to develop the implementation plan that integrates previous initiatives that are still on-going and the new supplements that focus on the new strategy.

Step 4: *Refine the plan*

The senior management team reviews the plan with the task team; this is to ensure that the partnership is developed, Beer and Eisenstat explained.

Step 5: *Implement the plan*

According to Beer and Eisenstat, the best practice is to divide the strategy into chunks; those chunks are then allocated to task team members so that they can champion them. The senior management team is responsible for the overall process and has to periodically review the progress.

2.3.5 *Challenges in strategy execution*

Beer and Eisenstat (2000) urge that there are six challenges in strategy implementation; they refer to these as “six strategy killers”.

They divide these into area of leadership, implementation and communication

Leadership challenges

- a. Ineffective leadership team

Beer and Eisenstat uncovered that senior management teams usually operate in silos which make it difficult to support a strategy of which they have no full view.

- b. Unclear strategies and conflicting priorities

In business, resources are not in abundant supply, Beer and Eisenstat discovered that the inability to plan and prioritise resources is one of the biggest contributors to why strategy execution fails.

c. Top down senior management style

Beer and Eisenstat discovered that most often the senior management leadership style also hinders strategy execution, such aspects of leadership style includes the inability to deal with discomfort and conflict, making unilateral decision without involving the team. This sentiment is supported by Corboy and Corrbui (2007) when they wrote about the seven deadly sins of strategy implementation; they highlight that once the implementation begins, senior management usually step out of the picture at the crucial moment where they should be more involved in selling the strategy.

Implementation

a. Poor coordination across functions and business

Linked to points A and B above, most organisations fail to pull all departments together during execution (Beer & Eisenstat 2000).

b. Inadequate down the line leadership skills and development

The lower management does not develop new skills associated with the new strategy, thereby are unable to lead change (Beer & Eisenstat 2000).

Communication

a. Poor vertical communication

The main communication challenge discovered by Beer and Eisenstat was that senior management do not spend time addressing problems or concerns related to execution.

2.3.6 Obstacles to effective strategy execution

“Making strategy work is more difficult than strategy making” (Hrebiniak 2006). From the study he conducted in 2006, Hrebiniak present his findings why strategy execution fails.

Managers are trained to plan not to execute

Hrebiniak (2006) suggests that one of the obstacles in strategy execution is training, he argues that managers are not trained to execute but rather to formulate strategy, mentioning that even business courses like the MBA, also focus more on strategy formulation. Although Hrebiniak sees this as a one of the pitfalls, he also acknowledged the fact that execution cannot be thought, as there is no formula for good execution, the biggest teacher is experience, but he argues that a model can be developed for managers to teach them basic step by step or a logical approach to strategy implementation.

Let the “Grunts” handle execution

Some organisations still have a disconnection between planning and execution, usually the smart people will plan the work and hand it over to not so smart people, the “grunts”, and the “grunts” will execute the plan (Hrebiniak 2006). He continues to state that execution demands ownership and team work, organisations that cannot establish the link and create teamwork between those in charge of planning with those in execution, will find it very difficult even to execute a simple strategy.

Planning and execution are interdependent

Although strategy formulation and strategy execution are separate parts of a strategy management process, one should not forget that they are interdependent, said

Hrebiniak, and they are part and parcel of the Planning-Executing-Adapting process he added. Strategy will have a good outcome when those in charge of implementation also form part of execution, this is critical as successful execution starts at the planning phase (Hrebiniak 2006).

Execution is the process that takes longer than formulation

Unlike strategy formulation, execution takes time and has serious challenges as many things can change during the execution process, said Hrebiniak; he mentioned a few things that might impact on execution:

- Interest rate may change
- Key personnel might leave the company
- Customer needs may change
- Competitors' behaviour might change

Execution is a process that needs dedication, it changes all the time and if there is a good link with planning, such changes can be made swiftly without delaying the process (Hrebiniak 2006).

Execution involves more people than strategy formulation

There are a lot more people involved in execution; for this reason communication down the organisation and across different functions becomes critical and most often organisations fail to get this right, said Hrebiniak. Communication breakdown means morale breakdown for those in the middle of execution (Hrebiniak 2006).

2.3.7 Overcoming the obstacles and implementing strategy successfully

After the research concluded by Hrebiniak, a model was crafted (see figure: 10 below) the arrows in the model shows the flow of actions and decisions. The most important thing, according to Hrebiniak, is the integration loop where the planning and execution interact, linked to the argument he made that execution fails because planning and implementation are done in silos.

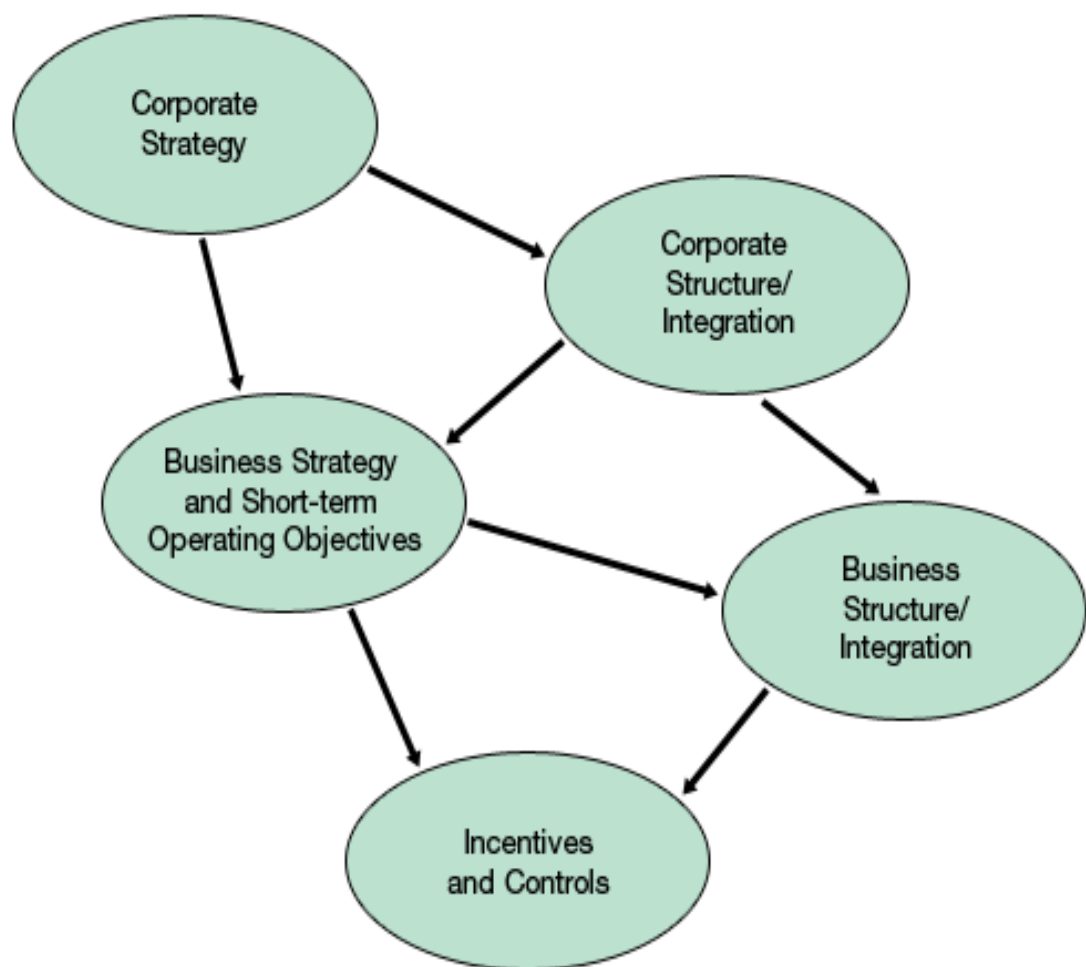


Figure 9: Implementing strategy, key decisions and actions (Hrebiniak 2006)

2.3.8 Performance management

Otley (1999) presents five questions to be answered when a performance management system is to be adopted to manage the organisation's performance. These are as follows:

1. What are the overall objectives which are key to the organisation's success? And how does the organisation evaluate its performance against these objectives?
2. What are the strategies and plans that have been adopted by the organisation? What activities, initiatives and processes that have been decided, will be required for the successful implementation?
3. What performance level does the organisation need to achieve in each area defined above (question 2), and how are the performance targets set up?
4. What rewards are linked to achieving the targets? What penalties are linked to not achieving those targets? These applied to both management and employees.
5. What are the information flows (feedback and feed-forward loop) that are necessary to enable the organisation to learn from its experience?

Pycraft, Singh and Phihlela (2002) took the issue of continuous feedback, as stated by Otley, to the next level in the expansion of the Deming Wheel model that is used to achieve sustainable continuous improvement in the organisation (Figure:10 below).

- Plan- requires an understanding of the performance gap and set priorities to close it.
- Do- implement changes, collect data to monitor improvement
- Check- is anything changing? Analyse the data

- Act- study the result, redesign the system

The PDCA model is a good model not only for continuous improvement but as the performance management model suggested by Moen¹ and Norman² (2010).

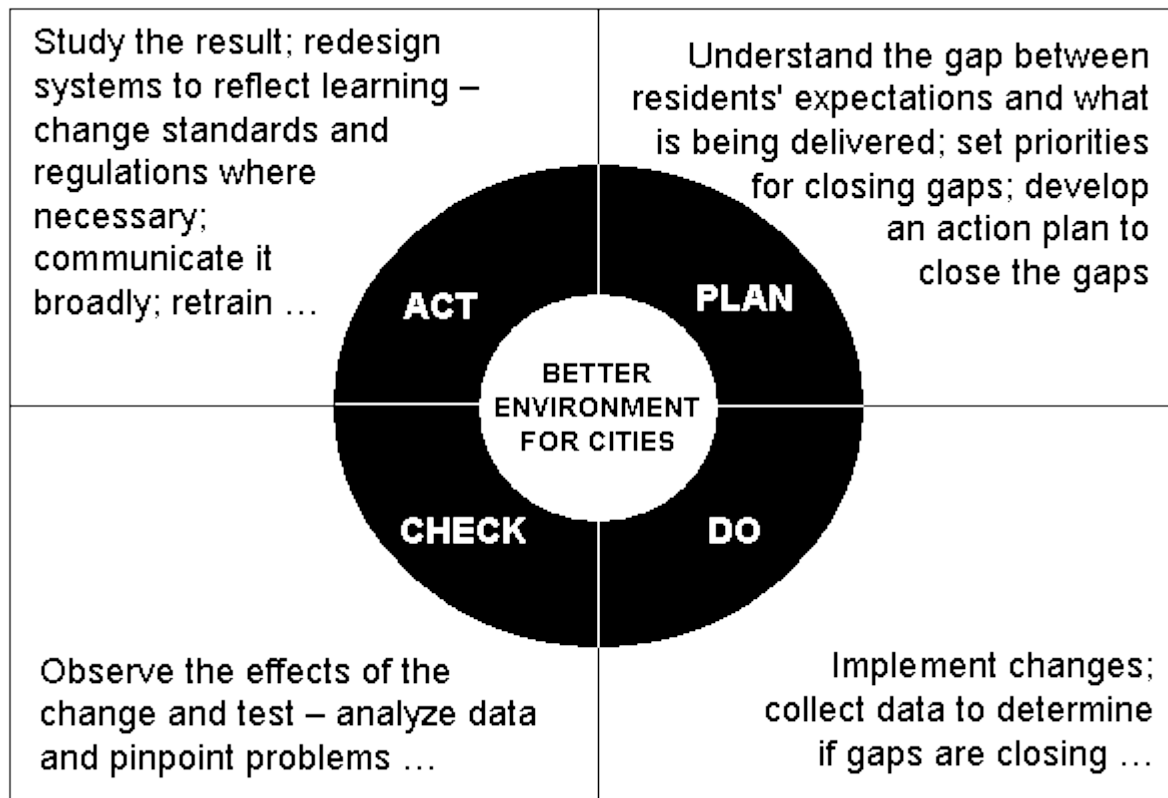


Figure 10: The PDCA cycle (source: Pycraft, Singh and Phihlela 2002).

2.4 Research questions

There are two research questions for this study:

2.4.1 How does Anglo American Platinum implement the strategic thrust to improve labour productivity?

2.4.2 What are the main challenges in the implementation of the strategic thrust to improve labour productivity?

2.5 Conclusion of Literature Review

More often the objectives that are set in an organisation are not implemented as planned (Kaplan & Norton 2000, p.1), various management issues always result in a gap between strategy and execution. The two most common problems that almost always come to hinder execution are as follows (Alexander 1985):

- Execution took longer than anticipated; this may mean that organisation runs out of time and resources before finalising the execution.
- Major problems surface in the execution phase that were not identified during planning, which might mean the planning was not rigorous enough.

The above mentioned points prove how important the planning and execution phase is, said Alexander.

Communication must always be at the heart of execution, organisations who cannot master the art of meaningful communication always suffer a large strategy-to-execution gap (Alexander 1985; Beer & Eisenstat 2000).

Resources are always limited, strategy execution is successful when the organisation is able to plan the resources required and also deploy them on time to support the process of execution (Alexander 1985; Mankins & Steele 2005).

According to Alexander (1985), companies that failed to deploy or plan resources on time including the deployment of experts will find themselves facing two options: having to deal with a huge “strategy to execution gap” or having to spend too much money to get the execution back on track.

3 CHAPTER 3: RESEARCH METHODOLOGY

This research aims to critically evaluate the implementation of the labour productivity programme which is a new strategic thrust at Anglo American Platinum.

The proposed research methodology is qualitative, due to the fact that the study is exploratory in nature (Creswell 2003). The study is also concerned with multiple perspectives of different individuals (Leedy & Ormrod 2005; Williams 2007).

The remainder of this chapter discusses the research design, population sample and the research instrument. The last section outlines the issues that relate to data collection, data analysis, validity and reliability of this study.

3.1 Case Site

Source: information about the case site was compiled using the Anglo American Platinum website, Anglo American Platinum Financial Results presentation of 2013, labour productivity documents and using information supplied by Mr. Braam van Zyl, a Senior Principal Mining Engineer at Anglo American Platinum.

3.1.1 Background

Employing more than 37,000 people, Anglo American Platinum is 80% owned by Anglo American PLC. It is the world's largest producer of platinum, producing more than 2.3 million ounces of platinum per year, which accounts for 40% of the global supply.

Anglo American Platinum is in charge of the complete value chain of platinum; it mines, processes, refines and markets the entire range of platinum group metal (PGM) which are listed below:

- Platinum
- Palladium
- Rhodium

- Ruthenium
- Iridium
- Osmium

As well as by-products base metals such as:

- Nickel
- Copper
- Cobalt sulphate

All these metals contribute to the earnings of this number one producer of platinum group metals.

The production comes from ten whole-owned mines and joint ventures, all located to exploit the world's richest reserve of Platinum group metals (PGMs) known as The Bushveld Complex.

List of 100% owned mines:

- Siphumelele Mine- Rustenburg Section
- Khomanani Mine-Rustenburg Section
- Thembelani Mine-Rustenburg section
- Bathopele Mine-Rustenburg Section
- Khuseleka Mine-Rustenburg Section
- Tumela Mine- Amandelbult Section
- Dishaba Mine Amandelbult Section
- Mogalakwena Mine- Eastern Limpopo
- Twickenham Mine- Eastern Limpopo
- Unki Mine- Zimbabwe

List of joint ventures:

- Modikwa Mine- partners, African Rainbow Mineral
- Mototolo Mine- partners, Glencore

- Kroondal Mine- Partners, Aquarius
- Marikana Mine-Partners, Aquarius
- Union Mine- partners, Bakgatla-Ba-Kgafela Traditional community

Anglo American Platinum Strategy in short:

- Developing the market
 - Develop market for new industrial applications, e.g. fuel cell technology, while maximising the benefits from the current autocatalyst and jewellery market
- Optimising the portfolio
 - Reducing exposure to high-risk, low profit margins and capital-intensive mines.
- Managing cost
 - Implementation of programmes targeted to reduce cost and improve efficiency, value from these programmes is expected to realise by 2015
 - Overheads have been reduced to further align the cost with prevailing market conditions

Anglo American Platinum aimed to achieve its strategic goals without any compromising of the values that underpin its vision and mission.

3.1.2 How does Anglo American Platinum intend to improve the labour productivity?

The most important unit measurement for labour productivity in a mining operation is m^2 /operating employee.

The significance of this number is as follow:

- M^2 / operating employee= Tons/ operating employee= Ounces/ operating employee= Revenue/ operating employee= Company Revenue

The above relationship shows that as the $m^2/\text{operating employee}$ drops, the revenue per employee also drops so does the total revenues of the company and vice versa.

In 2010 Anglo American Platinum $m^2/\text{operating}$ was just above 7, and that number has gone down to less than 6,5 in 2013, a significant drop in revenues per employee. What makes it worse is that 6,5 is 20 to 35% below other platinum producers in the country.

How does Anglo American Platinum aim to improve labour productivity to acceptable levels?

- Improve $m^2/\text{operating employee}$ by reducing loss of production through rigorous planning. On average, each crew or working place on an Anglo American Platinum mine does 11 blasts per month; with proper planning of labour and resources an additional blast can be achieved, meaning that Anglo American platinum is targeting 12.5 blasts per crew per month.
- Improve face advance per blast, when a crew takes its daily blast, a potential advance per blast is 1,1 metre; currently at Anglo American Platinum an advanced per blast is between 0,75- 0,8 metre. Anglo American Platinum aims to improve the advance per blast to 1.0 metre thereby improving $m^2/\text{operating employee}$. This will be done by improving blasting techniques (new technology) and improving the quality of drilling by use of 'hole directors'.

Anglo American Platinum believes that by introducing these back to basic initiatives, it will be able to improve its labour productivity to profitable levels.

Figure 11 and 12 below show how Anglo American Platinum's $m^2 / \text{operating employee}$ compares to other platinum producers in the market.

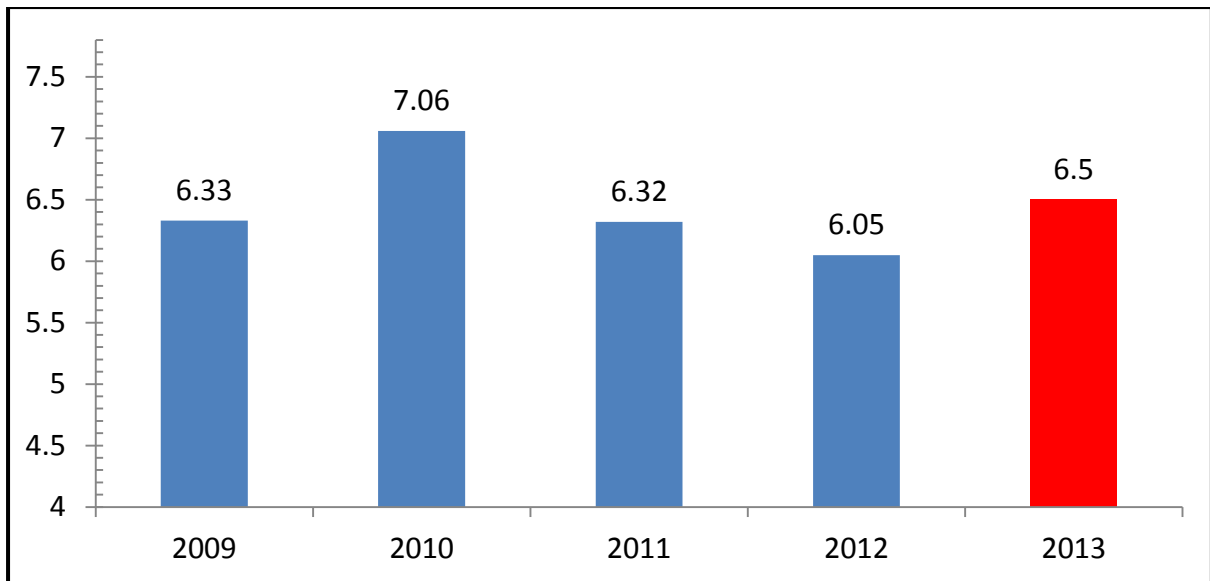


Figure 11: Anglo American Platinum square meter per operating employee on a decline since 2010 (source Anglo American platinum 2013 interim results)

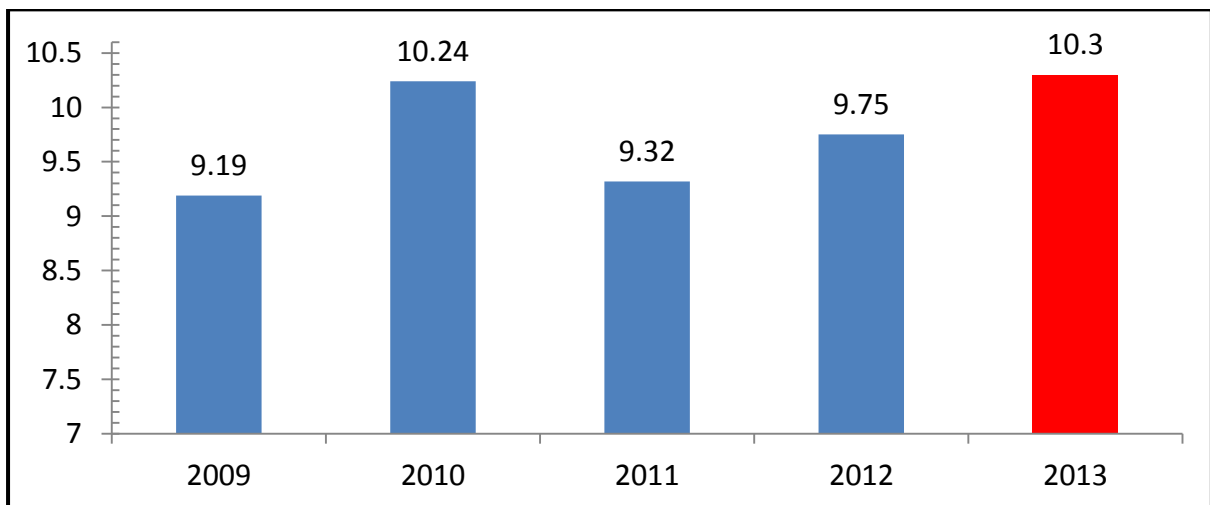


Figure 12: Other platinum producers square meter per operating employee on a rise since 2011 (source Anglo American platinum 2013 interim results)

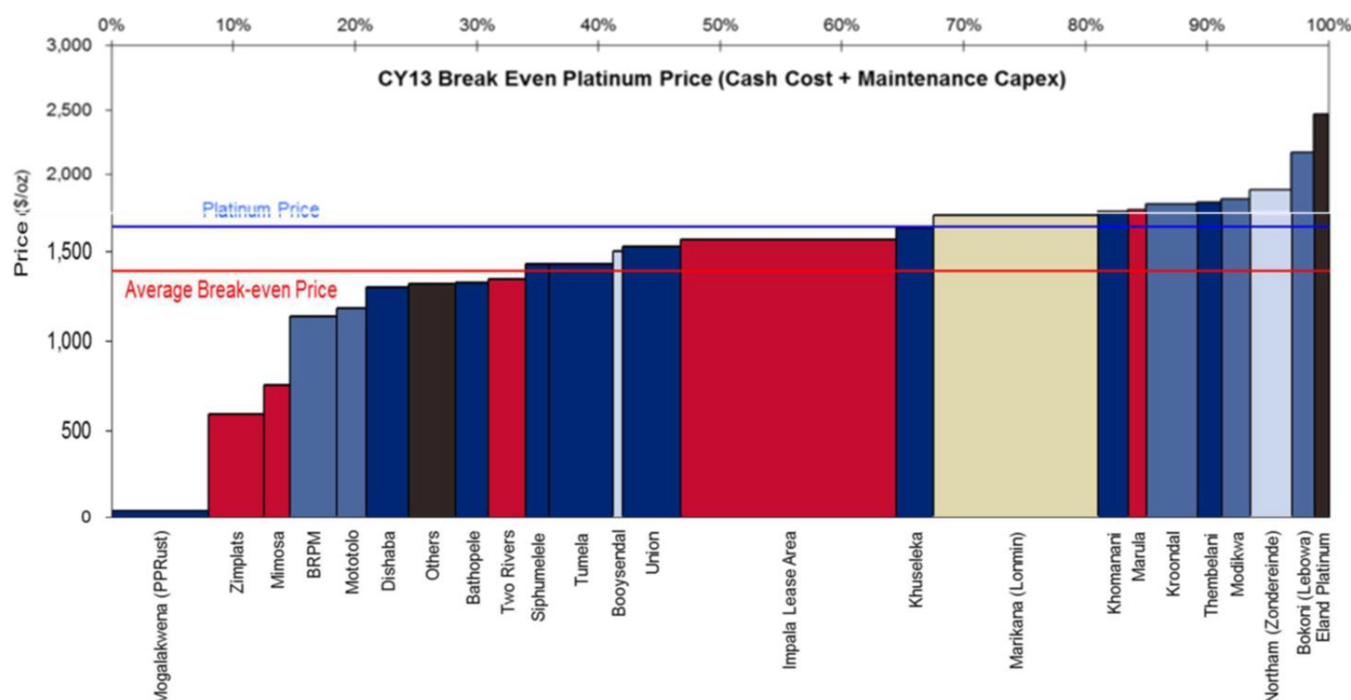


Figure 13: Most of Anglo American Platinum mines are not breaking even i.e. Tumela, Siphumelele, Union, Khuseleka, Khomanani and Thembelani (source Anglo American platinum 2013 interim results)

3.2 Research methodology / paradigm

The chosen method for this study is qualitative. Myers (1997) states that the qualitative research design originated in the natural science environment where it was used to study natural phenomena. He goes on to say that in recent years qualitative research has found its way into the social sciences domain where researchers use this method to conduct action research, case study research and ethnography. “The motivation for doing qualitative research as opposed to quantitative research comes from the observation that if there is one thing which distinguishes humans from the natural world, it is our ability to talk, qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live” (Myers 1997, p. 2).

The other reason why qualitative research is appropriate is found in the paper by Creswell (2003), who mentions that qualitative research makes it easy for the researcher to collect emotional and factual data and interpret it.

Kaplan and Maxwell (1994) argue that a researcher who wants to understand a particular situation or issue can use qualitative research to investigate the behaviour of the people in that situation or context. They are of the opinion that qualitative research is mostly inductive. There is no hypothesis to be proven; rather the hypotheses are being developed as the study progresses to highlight the learning and observations.

Leedy and Ormrod (2005), as well as William (2007), recommend the qualitative research for study:

- That has the potential to reveal characteristics of peoples, aimed at examining the processes and relation system.
- They argue that qualitative research allow the researcher to gain new insights in respect of the phenomenon being studied and develop new concepts about it; Myers (1997) supports this argument
- The researcher can use qualitative methods to test the validity of certain claims and theory.
- It enables the researcher to evaluate workflow, policies and practices.

The big concern about qualitative research is that it lacks structure, and qualitative research data is often very difficult to analyse (Leedy & Ormrod 2005).

3.3 Research Design

Semi-structured interview methodology was adopted for this study; this enabled the researcher to elicit views, opinions and practical experience from respondents being

interviewed. The main aim was to evaluate the implementation of the labour productivity strategic thrust at Anglo American Platinum.

The interview process consisted of eleven interviews with the senior management members from different operations within Rustenburg, Amandelbult (Limpopo) and Swartklip (Limpopo). Each interview was recorded and the results were transcribed for backup purpose should a researcher require to return to or review interviews for greater detail on specific comments or statements. The researcher worked from an interview guideline when conducting the research in order to ensure consistency.

This format allowed the researcher to collect both emotional and factual information (Creswell 2003). Creswell also added that this method is very flexible and allows the researcher to tweak the questions in order to get more insight.

The limitation with the interviews include: inequalities in perceptions and the ability of respondents to articulate themselves (Hussey & Hussey 1997; Creswell 2003), for this reason the researcher only guided the interview and was not tempted to lead the discussion as this has a potential to corrupt the data.

3.4 Population and sample

3.4.1 Population

The population included members of Anglo American Platinum senior management team from different mining operations within Rustenburg (North West area), Amandelbult and Swartklip (Limpopo area). The targeted members are in finance, business improvement, operational support as well as general managers of the different mines. All these functions are in the forefront of the execution of the labour productivity strategic thrust.

There are no limitations as to age, race, gender, education background and previous work experience; however it was necessary to select members that have been with

the company for more than two years as they can give insight based on previous experience within Anglo American Platinum.

3.4.2 Sample and sampling method

A sample of eleven senior management members was drawn from the population. A list of potential respondents is provided in table 2 below. Significant efforts were made to include at least two Mine General Managers.

Convenience sampling as opposed to random sampling was employed as potential respondents are persons to whom one would need to gain access and was based on the convenience of access for the researcher (Creswell 2003).

Table 2: List of potential respondents

Number	Name	Job Title	Mine
1	Patrick Morutlwa	General Manager	Siphumelele 1 Mine
2	Phillip Schoeman	General Manager	Union Mine
3	William Taylor	General Manager	Tumela Mine
4	Zweli Ndese	General Manager	Thembelani Mine
5	Rudi Rudolf	General Manager	Siphumelele 2 Mine
6	JJ Joubert	General Manager	Dishaba Mine
7	Tenda Tendaupenyu	General Manager	Mining Support services
8	Benedict Ngezi	General Manager	Mining Support Service
9	Logan Nair	Senior Principal Mining Engineer	Siphumelele, Thembelani and Khuseleka Mie

10	Braam van Zyl	Senior Principal Mining Engineer	Tumela Mine, Union Mine and Dishaba Mine
11	Tseko Hlaphe	Finance Manager	Siphumelele Mine
12	Bruce Mashapu	Finance Manager	Tumela Mine
13	Prince Molusi	Finance Manager	Union Mine
15	Luc Vermeulem	Finance Manager	Dishaba Mine
16	Arnold Coetzee	Business Improvement Manager	Dishaba Mine
17	Carlo Van Rensburg	Business Improvement Manager	Bathopele Mine
18	Edgar Chandomba	Business Improvement Manager	Tumela Mine
19	Vincent Naidoo	Business Improvement Manager	Union Mine
20	Lallie van Zyl	Business Improvement Manager	Khomanani Mine

3.5 The research instrument

Semi structured interviews were conducted together with the document review (the researcher conducted a review only on those documents provided by the respondents). This type of interview is characterised by Schmitt and Klimosky (1991) as the best tool to uncover both verbal and non-verbal conversation. This was supported by Creswell (2003) who stated that interview methods help the researcher to probe and seek answers to questions that might not be well answered.

The researcher opened up the interview by formally introducing himself and providing a brief background to the research and its objectives. The respondent was then introduced to two sets of questions,

- Set one: aimed to evaluate the execution process.
- Set two: aimed to evaluate ability to deal with general execution challenges

These were pre-prepared questionnaires and the researcher asked probing questions just to gain clarity.

The structured portion of the interview covered the following items (Appendix A)

- Knowledge and understanding of labour productivity strategic thrust.
- Targets and Key performance indicators.
- Deliberate actions.
- Challenges in execution of the labour productivity strategic thrust.
- Communication and change management.
- Performance management (tracking and measuring)
- Reward and recognition.

3.6 Procedure for data collection

The researcher initially contacted the potential respondent by telephone well in advance of the research and invited them to participate, the researcher explained the purpose of the study, subject to be covered and the expected duration of the interview. Once that had been concluded, an interview slot was secured. A “thank you” email was sent to the respondent once an interview slot had been secured as well as after the interview. Respondents who refused to be interviewed for any other reasons were also sent a “thank you” email where a researcher thanked them for their time.

The interview process was expected to take place in the respondent’s office or in an on-site boardroom. This was the most convenient for the respondent as it provided him with all documents or other relevant information he may have wanted to share

with the researcher. The familiarity with the location rendered the respondent free to share honest opinions with the researcher. Upon consent of the individual respondent, each interview was then recorded, notwithstanding the potential risk of respondents becoming alarmed or self-conscious at the prospect of being recorded (Bryman 2004).

The actual interview recording is not provided as an appendix to this research report but is safely stored as a reference should there be a need to draw on it.

In most cases in structured interviews the responses provided by respondents have already been altered to the exact response the respondent wished to provide (Leedy & Ormrod 2005), for this reason the researcher made every effort not to lead the respondents in their responses.

3.7 Data analysis and interpretation

Themed content analysis was used to interpret and analyse the results. A thematic analysis closely resembles content analysis, the researcher looks for common and recurring themes in the data (Burns 2000). A good definition of content analysis is given by Leedy and Ormrod (2005, p.142) as follows “a detailed and systematic examination of the contents of the particular body of material for purposes of identifying patterns, themes and biases.” The content analysis was conducted on information gathered during the structured interview process.

Cooper and Schindler (1998) also suggest this method for qualitative research where information gathered is not in number format but rather views and opinions. The results were grouped together according to position, department and mine site.

The information was analysed after each interview, the researcher listened to the audiotape and made relevant notes. The interview recording was transcribed and formed the basis of the information from which the analysis is conducted.

3.8 Limitations of the study

Limitations for this study include the following:

- The number of respondents to be interviewed is very limited due to the exploratory nature of the study.
- The fact that this was conducted on Anglo American Platinum sites might mean the outcome might not carry sufficient weight to be applicable to all platinum producers in the country.
- The single researcher bias, the methodology is limited by and to the researcher's abilities, integrity and sensitivity and may therefore be open to misinterpretation, whether intended or accidental (Leedy & Ormrod 2005). The researcher undertook to adopt strict procedures and standard protocols in order to minimise and overcome this limitation
- Although the interviews were backed up by document reviews, the concern over subjectivity still remains
- The shop floor personnel and workers' union representatives were not included in this study, which might have been very useful to close the loop.

3.9 Validity and reliability

Validity refers to the ability of the measuring instrument, which in the case of this study is the structured interview, to measure what it is intended to measure (Leedy & Ormrod 2005). Validity focuses on aligning the research to its intended topic or measurements (Cooper & Schindler 2008). It is important to bear in mind Cooper and Schindler's observation about qualitative research. They argue that it is very easy to derail the research due to misalignment between what needs to be measured and the information that has been collected. According to Ghauri and Gronhaug (2002), every study must address the threats to validity and reliability; they continue to mention the following types of validity for qualitative research:

- Descriptive: refers to a degree to which the actual description holds true
- Interpretive: how well the data will be interpreted
- Generalisation: to what extent the findings of the study can be generalised to other settings

Reliability refers to the extent to which a measurement procedure provides the same answer whenever and however it is conducted (Kirk & Miller 1986).

Leedy and Ormrod (2005) provide nine general criteria as used by academics to evaluate qualitative research and they are as follows:

- Completeness
- Coherence
- Persuasiveness
- Purposefulness
- Rigor
- Explicitness of assumptions and biases
- Usefulness
- Open-mindedness
- Consensus

3.9.1 External validity

External validity is defined as an extrapolation of particular research findings beyond the immediate form of enquiry to the general (Riege 2003; Leedy & Ormrod 2005). Leedy and Ormrod (2005) suggest that the chosen sample should be a “representative sample” so that one is able to draw generalisations from it.

Since the research conducted encompassed responses from a limited number of respondents from the same organisation who were not randomly selected, it is not possible to generalise the findings, however the findings might be useful to other Anglo American Platinum sites and to other platinum producers within South Africa.

3.9.2 *Internal validity*

Internal validity as it is known in qualitative research refers to the extent to which the design and data results enable the researcher to establish cause and effect relationships (Leedy & Ormrod 2005).

A triangulation concept is often used to enhance the internal validity by ensuring that the findings are congruent with the reality; however for this study this concept was not used since some of the documents that could be obtained and analysed are deemed to be confidential. Nonetheless, it must be noted that the source of data involves eleven individuals from different operational sites within Anglo American Platinum.

The objective of the researcher was to conduct the interview in a neutral and consistent manner; the researcher did not lead the respondent into answering in a specific manner. Respondents were not influenced or led in any direction by the researcher. Respondents were free to provide and make comments as they wished. The fact that interviews were conducted at the premises of the respondents assisted the respondent to be more relaxed and more comfortable with the surroundings and not feel threatened.

3.9.3 *Reliability*

The concept of reliability depends on the extent of findings being possibly replicated *ceteris paribus* (Riege 2003). It is the ability of the measuring instrument to provide the same answer whenever and however the research is conducted (Kirk & Miller 1986), meaning that the measuring instrument is reliable to the extent that it measures whatever that it is measuring consistently. The instrument must present stability and the measurement must be consistent all the time (Bryman & Bell 2003).

In order to increase reliability, all interviews were conducted in person by the researcher. The researcher attempted to maintain consistency by utilising the same interview structure and the same interview questions.

4 CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents key factors, themes and direct comments stemming from the structured interviews. Two research questions were derived from the literature review against which the research was conducted. The researcher sought to evaluate the strategy execution process of the labour productivity thrust at Anglo American Platinum, to uncover the challenges at the execution phase and to evaluate how Anglo American Platinum seeks to manage the challenges. The research instrument used for this evaluation is provided (Appendix A), the first set of questions is aimed at evaluating execution and the second set are the questions aimed at evaluating the readiness to manage execution challenges.

The respondents' direct comments and statements are quoted and referenced accordingly, but page numbers are not provided as they are taken directly from interviews transcripts which are not available to the reader. Transcripts will, however be made available upon request.

4.2 Demographic profile of the respondents

Eleven interviews were conducted; the initial plan was to interview twelve senior managers including two general managers from various mining operations within Anglo American Platinum. Due to on-going strike action across the platinum belt only one general manager could avail himself for the interview.

The rest of the respondents were selected according to their involvement in the execution of the labour productivity strategic thrust.

- Anglo American Platinum has three operating mines in North West, Rustenburg area (Bathopele, Siphumelele 1 Mine, as well as Thembelani and Khuseleka). Thembelani and Khuseleka have recently been combined into one mine. All these operations were well represented in this study.

- The other three operations are in Limpopo, Swartklip and Amandelbult area. These are Union Mine, Tumela Mine and Dishaba Mine. Two selected respondents were from Tumela and another two from Union Mine. Dishaba mine, which is still behind with the execution programme, as compared to other mining operations, was excluded from this study.
- The other two respondents are mining engineers that work across all the mining operations within Anglo American Platinum to render operational support. Both of them were involved in the formulation of company strategy

Appointments for the interviews are provided in Table 3 below.

Table 3: Table Interview appointments

Number	Date	Respondent	Job Tittle	Mine
1	10 Feb 2014	Logan Nair	Senior Principal Mining Engineer	Rustenburg Operations (Thembelani, Bathopele and Siphumelele 1& 2)
2	10 Feb 2014	Buks Cilliers	Business Improvement Manager	Thembelani Mine
3	11 Feb 2014	Lallie van Zyl	Business Improvement Manager	Khomanani Mine
4	11 Feb 2014	Carlo van Rensburg	Business Improvement Manager	Bathopele Mine
5	14 Feb 2014	Braam van Zyl	Senior Principal Mining Engineer	North Mines (Tumela, Union and Dishaba mine)
6	20 Feb 2014	Bruce Mashapu	Finance Manager	Tumela Mine

7	20 Feb 2014	Prince Molusi	Finance Manager	Union Mine
8	20 Feb 2014	Edgar Chandomba	Business Improvement Manager	Tumela Mine
9	20 Feb 2014	Vincent Naidoo	Business Improvement Manager	Union Mine
10	21 Feb 2014	Tseko Hlapho	Finance Manager	Siphumelele 1 Mine
11	21 Feb 2014	Patrick Morutlwa	General Manager	Siphumelele 1 Mine

Interviews took place at respondents' offices in their respective mining operations.

4.2.1 Role of respective respondent in labour productivity thrust

General Managers: are members of the mining executive team, they are responsible for the total day to day operation of their respective mine. The responsibility of a general manager can be summarised as follows "safe platinum ounces" meaning they are there to insure the profitability of their operation and also the health and safety of the employees. At Anglo American Platinum, a typical general manager's operation employs 3500 to 7500 people; a general manager has a team of senior leadership personnel in charge of various disciplines on the mine. Because general managers are responsible for overall performance of the mine, the labour productivity thrust is high on their agenda, it forms a huge percentage of their performance contract. Labour productivity thrust is expected to deliver a minimum of R89 million additional profit per general manager's unit, depending on the unit size - some operations(i.e. Tumela mine) are expected to deliver as high as R224 million per annum.

Business improvement manager: when it comes to Labour productivity thrust the business improvement managers have to ensure the execution of the labour productivity programmes, they are in charge of scheduling, resource allocation as well as budget reviews.

Finance Managers: they are responsible for total financial administration and control on the mine, when it comes to labour productivity thrust they are the score keepers; they are responsible for reporting the financial performance, whether the operation is achieving the labour productivity financial targets or not.

Senior Principal mining engineers: they are mining technical experts, they were involved in the strategy formulation, including the labour productivity, their main role is to provide technical expertise, thereby assisting the operation to achieve the labour productivity targets, and they are the 'best practice' team.

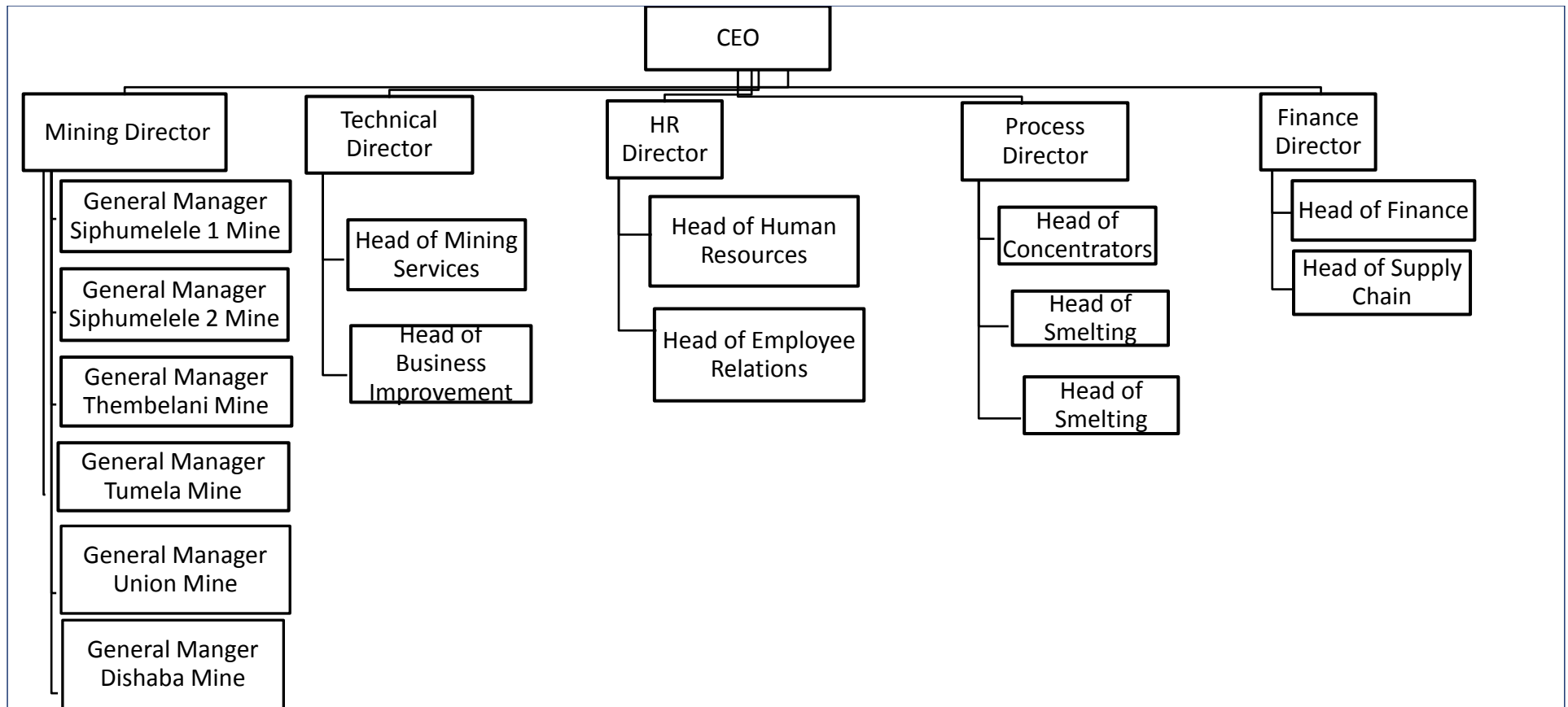


Figure 14: The Executive committee structure

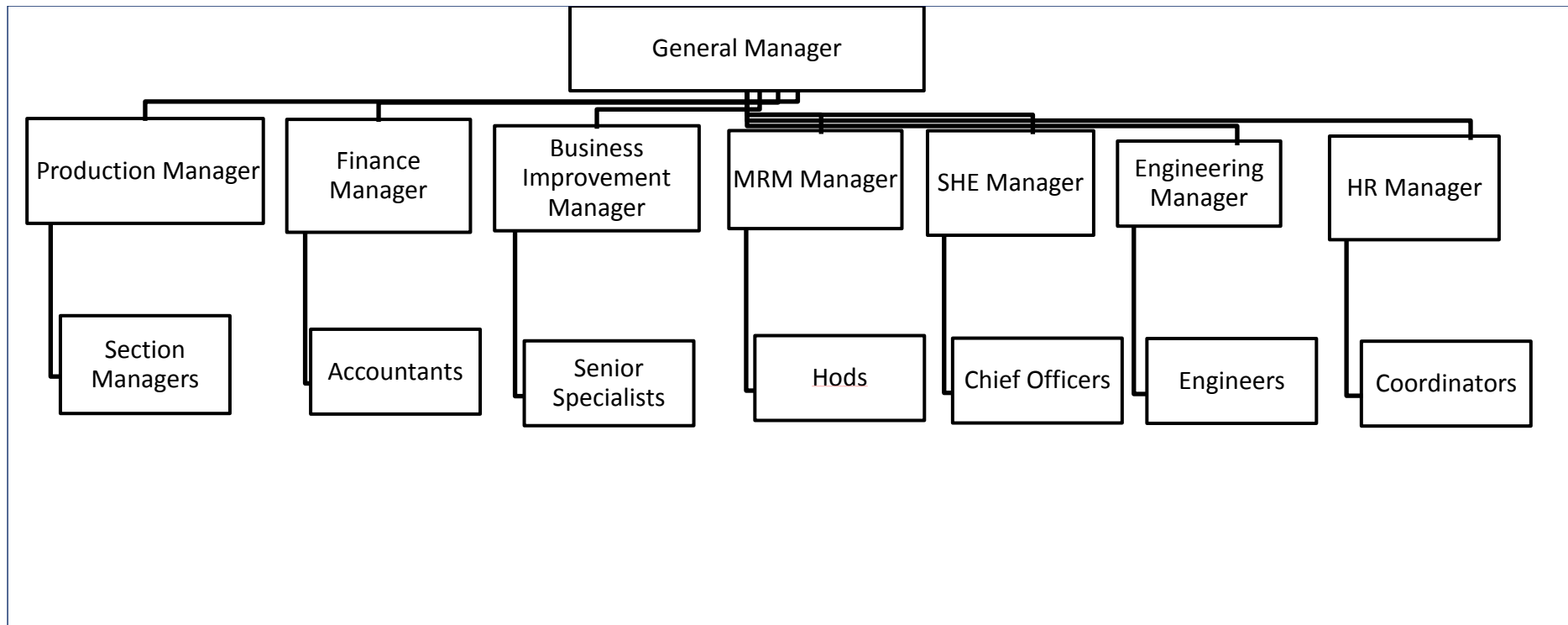


Figure 15: General Manager's team and mining HOD team

4.3 The results pertaining to how Anglo American Platinum implements strategic thrust to improve labour productivity

To ensure the consistency this research question was structured into a series of questions based on the literature review.

4.3.1 Understanding the labour productivity strategic thrust

“Before one can try to understand labour productivity strategic thrust, which is the strategy in the book you see on front of you, maybe let us swing back and take a look at Anglo Platinum strategy, I am talking about the strategy that dominated this company for the past ten years” said van Zyl.

“Anglo American Platinum’s previous strategy has been volume strategy, three million platinum ounces is the number that was in everyone’s heads until early last year. We all knew that the company has to ramp up to three million ounces per year” van Zyl explained. According to van Zyl, the volume driven strategy came to play when the issue of global warming became the international top topic, he said it was a life changing topic for automakers as they were forced to be responsible when it comes to emission control. “Suddenly platinum became the most important commodity in the whole world” said van Zyl.

“Over the past ten years since platinum became so vital to the survival of automakers, the source of supply has been fresh platinum, meaning the one we produce and sell to the market. But things changed when recycled platinum from those autocatalysts that has reached end of life started entering the market as secondary supply. Secondary supply of platinum grew by less than 4% until year 2000, but the growth picked up rapidly after year 2000, in 2011 the secondary supply reached 8.3%. Mining analysts predict that by 2020 secondary platinum will account for up to 20% of the market supply. That alone was enough to make us realise that the volume strategy era has come to an end, we realised that we needed to optimise our business” said van Zyl.

Anglo American Platinum had to take a decision to be a low cost producer and a very efficient producer, according to van Zyl:

- Being a low cost producer and efficient, means improving the labour productivity to acceptable levels by:
 - Optimisation half level extraction
 - Improving our blasting frequency
 - Improving blasting efficiency

“The Anglo Platinum labour strategic thrust and other intervention that came with it were derived following the OHSAS18001 sustainability model” van Zyl explained, “ all that we have discussed now falls under the first step which is: reviewing current standard and procedures” he added (figure 16 below).

Policy

“Remember that the implementation of any major change can only be successful if it is fully aligned with the company strategy and the proper planning is in place hence we made sure that we understood the company’s new strategy, the action plan that we put in place was built around understanding the ore body to ensure safe and profitable extraction”, said van Zyl.

Van Zyl mentioned that they had to review policies, standards and procedure to ensure none of these will interfere with the new strategy.

Planning

Van Zyl mentioned that execution begins with the solid plan, “If the planning has flaws the chances of executing successfully are very slim, we put action plans in place to ensure smooth execution, we ran several scenarios just to ensure nothing will go wrong” said van Zyl, “our plan was to identify those bottlenecks that are preventing us from achieving ‘the best out of the labour we employ’” van Zyl added.

Implementation

“I will talk about what we discovered later on, but before I do so I would like to sum up by saying that once the bottlenecks had been identified and action plans put in place the really work of implementation begins” van Zyl said.

Monitoring

According to van Zyl, each and every mining operation has established an operations room where all the KPI's are being monitored, daily, weekly and monthly. This is to ensure the monitoring of:

- Short term - half level ore reserve planning and scheduling
- Medium term - ore reserve graphs

Management review

“On a monthly basis, mining engineers and exco team review the progress made by each mining operation on labour productivity, they review the progress made per value lever and the benefit realised. If there are obstacles that the mine on-site team cannot overcome, the exco team, together with mining engineers, step in to assist the operation to get back to plan” said Mashapu.

Mining value chain

“For any optimisation process, an understanding of the value chain is critical otherwise how will you know which process has great value or potential if you don't understand a value chain” said Nair. “When we started to analyse mining value chain (figure 17 below) we were amazed to realise that exploration and evaluation were our biggest down fall” Nair added.

Most respondents explained that understanding of the ore body through exploration and evaluation is a critical step as it helps you to determine the following critical KPIs which are linked to labour productivity:

- Development and construction rate
- Ledging and equipping rate
- As well as the extraction rate (Production profile)

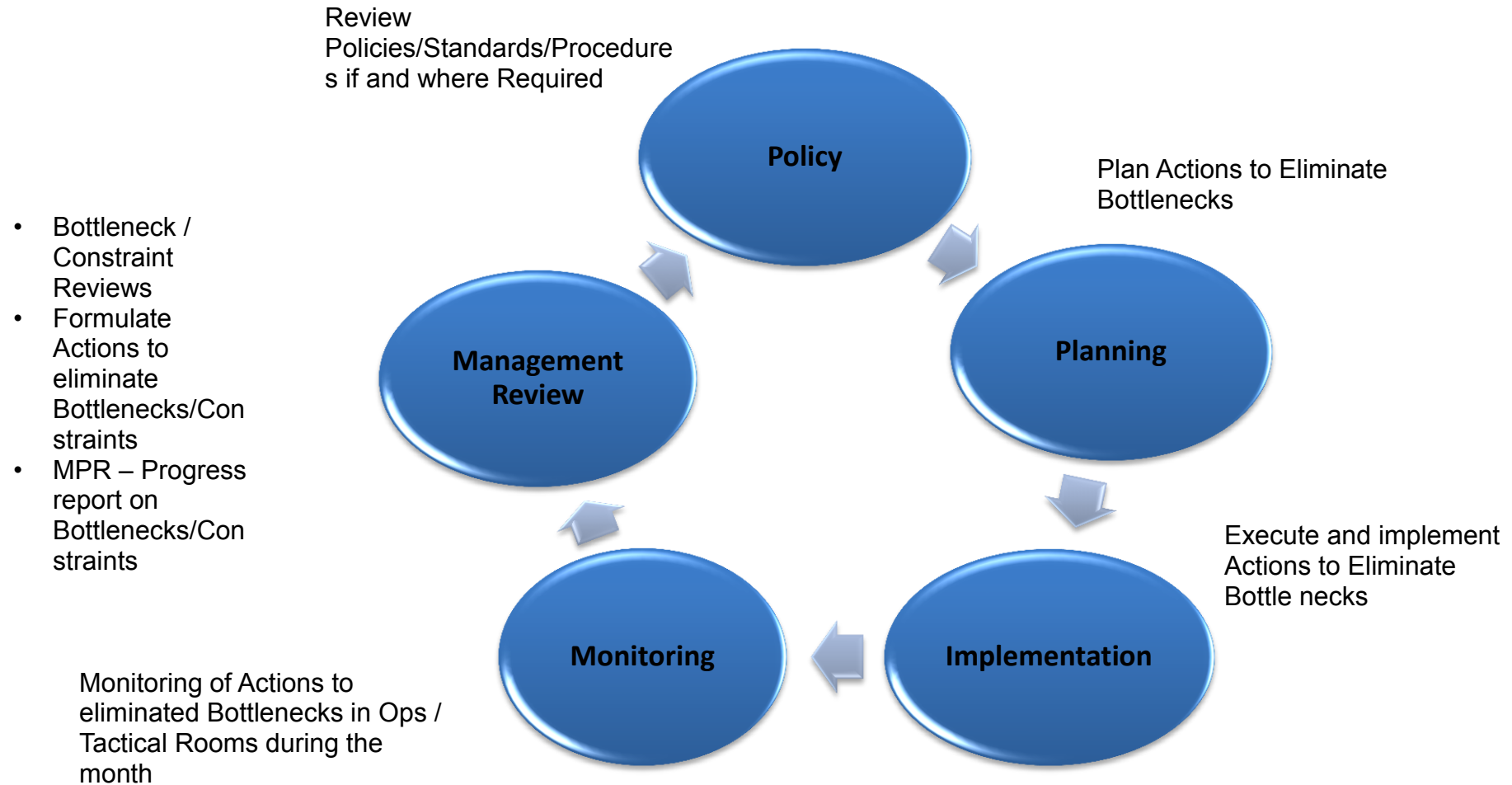


Figure 16: Strategy Management at Anglo American Platinum following the OHSAS18001 sustainability model (provided by van Zyl).

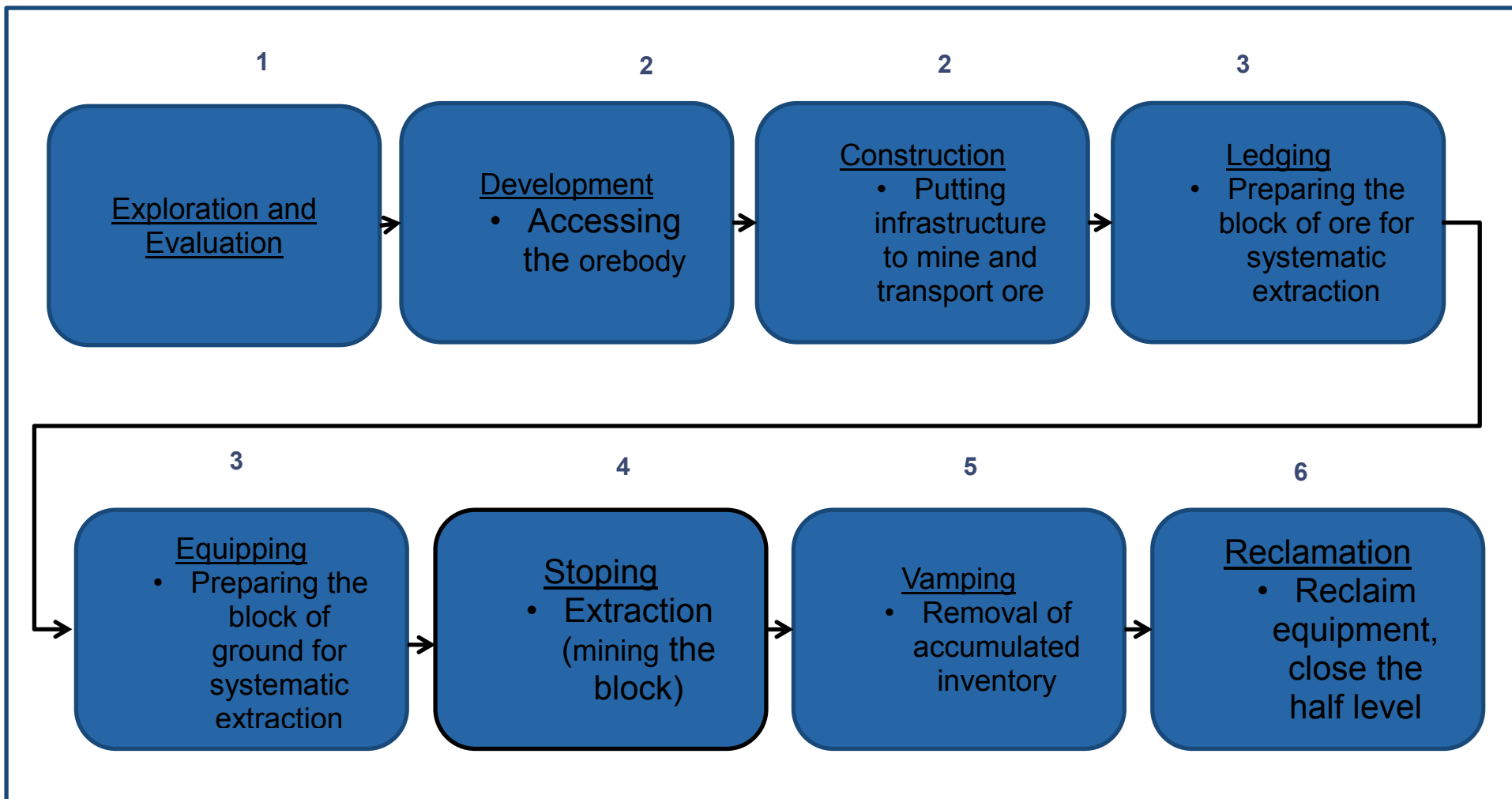


Figure 17: A simple mining value chain (provided by van Zyl).

4.3.2 Reasons why Anglo American Platinum is embarking on labour productivity

Several factors were mentioned by respondents as reasons why Anglo American Platinum had to review its portfolio, as the result of that review, the labour productivity strategic thrust was born.

Production efficiencies (M² per operating employee)

“M² per operating employee is the most important figure when one talks about profitability of a platinum mine, as this figure also indicates to you the tons per man as well as ounces per man”, said Hlapho. He continues to state that “if your square metre per man figure keeps on dropping so does your revenue per man meaning that your profit margins will drop because operating cost will always be on the rise no matter what”.

Most respondents mentioned that an Anglo American platinum square metre per operating employee has never been the best one in the industry, however it has always been at acceptable levels considering that the platinum price has been constantly rising until 2008, however the square metre per operating employee took a deep dive in 2011 and there were no signs of recovery, hence the company realised the need to come up with a survival technique.

“Perhaps the biggest concern was that while this was happening, the other mining houses, especially the joint venture operations (not managed by Anglo American Platinum) experienced the opposite, during the same period their square metre per operating employee was 10.29 in 2010 and there was a slight drop in 2011, thereafter there has been a year on year improvement on their side” said Chandomba. Most the respondents mentioned this during the interview.

Platinum Price

Respondents mentioned the platinum price as one of the reason for the labour productivity thrust intervention, saying that the platinum price has been on the rise since 2000, hitting the highest price of USD2200/Oz in 2008 but after that the price fell to about USD1200/Oz and has normalised around USD1450/Oz. At the same time, Anglo American Platinum grew its ounce profile from around 1.8 million ounces per year in 2000 to 2.5 million ounces in 2006. Respondents also noted that during this period of the boom, Anglo American Platinum started partnerships with small players through joint ventures, and the ounces from those partnerships have been increasing year after year complimenting the poor deliver from Anglo American Platinum 'owned and managed mines'.

Cost of production

"If you check our interim financial report of 2012, you will noticed that three of our Rustenburg operation's working cost was running above platinum price at that time, this is on cash cost plus maintenance capex" Nair said, "that is terrible considering the fact that two of our biggest underground operations (Union and Tumela mine) were also operating above the industry average break-even point" he added (Figure 13).

Many respondents also mentioned that Anglo American Platinum has one profitable operation at the moment, which is Mogalakwena, an opencast operation which is not as labour extensive as underground operations, they mentioned that even Dishaba and Bathopele mines that were operating below industry break-even point in 2012, have now fallen further and did not make a profit in 2013.

Increase in direct operational cost has been mentioned as one of the major contributors of poor profitability. Van Zyl mentioned that the rand basket price of platinum and its associated metals has grown by a CAGR (compound annual growth rate) of 7% since 2000 while the cost of producing one refined ounce has grown by 14%, thereby squeezing the profit margins. "In a labour extensive operation like

Anglo American Platinum labour cost is the major driver of your cost component” said Mashapu.

4.3.3 Breaking down labour productivity into deliberate actions and sub initiatives

“Let me start by saying we are trying to address all those factors that lead to poor labour productivity” said Chandomba, “so each lever we are pulling is linked to some of the issues or factors that were identified as causes of poor labour productivity” he added. This sentiment was strongly supported by most respondents. Mashapu stated that labour productivity is aimed at addressing the internal issues that prevent Anglo American Platinum from getting the most out of the labour employed. “We cannot control platinum price but we can eliminate those obstacles that are costing us productivity” said Mashapu.

“There are three levers: blasting efficiency, blasting frequency and half level optimisation” said Tseko. “What we are trying to do here is to enable crew to blast more square metres, in other words we want an increase of square metre per crew thereby improving broken tons per man, that will translate to safe profitable ounces” said Mashapu.

A. Half Level Optimisation

“In the past, this company never bother to ensure that each half level is optimised to make its own profit, there were mines that operated just over 1000 square metres per half level which was criminal” said Chandomba. He continues by saying, “another big flaw was the fact that the way we managed half level activities was not the best, we operated in silos and created activity managers and that totally shattered all the opportunities to achieve optimal productivity in the half level, half level optimisation is aimed to address these pitfalls by ensuring that half levels are manned correctly without creating silos and that they can deliver highest safe production possible in a sustained manner”. “There are two main areas that we are

focusing on, it is half level manning and half level planning, and we are confident of the value that we are going to unlock” said Cilliers.

Half level optimisation two sub-levers:

- a. Half level manning
- b. Half level planning

Half Level Manning

Respondents mentioned that each half level has several interdependent activities that in the past were managed separately and that created silos and inefficiency (poor labour productivity)

Activities are:

- development,
- development construction,
- ledging,
- equipping,
- stopping,
- vamping,
- reclamation,
- Logistic- transportation of man, material and ore.

“These activities were managed separately by three mine overseers, and in some operations it will be up to five mine overseers. No one was assigned to constantly look at the whole value chain in the half level, as a result there was a total disconnect between the activities. You will find a half level that produces 2000 tons being resourced with both labour and machinery as the half level that does 5000 tons, the opposite is true some half levels were under resourced and produced well below their capacities” said Molusi.

“Our new strategy now is to manage half levels differently, we assigned one mine overseer to manage the entire value chain in the half level, this value chain is called

activity zone. By so doing we have eliminated the silos and created proper links in the value chain” said Morutlwa. “Now we can ensure that there is enough skills mix to support the activities in the half level and we can supply the half level with the necessary equipment, the monthly planning has been redesigned to focus on half level productivity. At the same time we are saving on skills and headcount, for example instead of five mine overseers per half level now there is only one, the rest can be redeployed elsewhere to ensure proper supervision coverage on the mine,” said Morutlwa.

“Most operations were able to reduce at least two half level in the first three months of the labour productivity implementation, each half level that has been permanently or temporally closed equates to about R21 Million saving per annum” said Molusi.

Half level planning

Respondents believe that the new strategy in manning half levels has made it possible or increased the chances of achieving the planned production per half level. “Now that you have one person responsible, he or she can allocate the resource accordingly, he or she is able to focus on the constrained activities, this was not the case few months ago” said Chandomba. “The production per half level is now planned accordingly to match the capacity of that half level, some half levels can do more than others depending on the design, infrastructure and logistic chain. The fact that we can cut some half levels completely it means we save on power, labour and equipment, it means our locos and other infrastructure can deliver more ton per month, we have reduce idling time” Chandomba explained.

“Half level optimisation is very important as it also affects other levers, poor managed half level will affect the blasting frequency and blasting efficiency”. Nair stated.

B. Blasting Frequency /Reduction of lost blast

“Blasting is one of the most important processes in our business, it is a process where tons are generated and those tons will be processed to ounces that we sell

and generate revenue. Lost blast which mainly relate to unplanned loss of production is an undesired event in our operation” said Cilliers.

Respondents pointed out that out of 22 shifts that a mine can blast per month, thereby generating revenue, Anglo American Platinum operations can only manage to blast about 11 out of 22 production shifts per month on average. “The reduction in lost blast is a lever aimed at understanding the main reason why we are losing so much blasts and come up with the action plan to eliminate unnecessary losses” said Cilliers.

Respondents mentioned three main reasons for loss of production:

- a. Unavailability of labour
- b. Panel to crew ratio
 - Stope Equipping
 - Construction
- c. Skill shortage

Unavailability of labour

Respondents mentioned labour unavailability as one of the major challenges facing the operations. “Unavailability is due to many reasons, there is an element of discipline” Naidoo said, “people abuse sick leave, and some they will just absent themselves because they know nothing will happen to them. Each operation has one or two absent officers that have to deal with 300 or more absentees per day, that is close to impossible to process all these cases in one day, so the process is totally chaotic, there is fraud involved as well” he added, he continues to highlight the fact that some of the absentee officers takes bribes rather than prosecuting the offender.

“Another facet of unavailability of labour is chronic illness, more that 40% of our labour population is on chronic medication, these people must undergo regular examination and follow up appointments and that is very difficult to plan in your budget. Absenteeism has grown from 15% to 18% and some operations are at 24%, as this figure grows so is the production lost” Naidoo explained.

“We have upgraded our “time and attendance” system to enable us to deal with the issue of absenteeism, right now when someone is absent without permission (AWOP) the system automatically blocked the person so that he or she can see the line manager, if it is a first offence that person will sign the first warning which is automatically generated by the system. If the same employee commits the same offence again the system generate the final warning, after final warning that employee will be permanently blocked by the system and he or she will undergo the formal disciplinary hearing where mostly likely he or she will be dismissed. The system works exactly the same for the sick leave abusers, the system tracks the trends of those sick notes and flag it to the line manager” Naidoo explained. “Of course we are not yet there but this is a step in the right direction” said Hlapho.

Panel to crew ratio

Van Rensburg gave a good explanation on panel to crew ratio, “it’s like your buffer capacity, we do know that at some stage one or two working places that we planned will stop producing before their end of life” he said, “ it might be due to safety reason or unanticipated drop in metal grade in that working place. By panel to crew ration we mean there must be spare working places to cater for such situations in most cases we use 30% buffer capacity, meaning that for ten crews there must be three working places that are ready to be mined should unplanned move take place” said van Rensburg.

“This is our major problem and a main reason why our labour productivity is so poor” said Chandomba, “can you imagine having more than 35 crews standing the whole month because they don’t have place to mine? It’s more than 400 people that get paid for clocking in and do nothing for the rest of the month. Unfortunately this is our own wrong doing as managers of these operations; we are so bad in planning” Chandomba added. Cilliers argued that stope equipping and construction are the worse managed activities across the group and that contributes to poor panel per crew ratio, “equipping crew has to deliver at least two working places or panels per month, but for that to happen they need to be assisted by planning their leave properly and making sure they have the tools and the equipment to deliver” said

Molusi, “the fact is these crews are not managed properly and as a result they deliver one workplace in six weeks” he added.

“To respond to this crisis, Anglo American Platinum is changing the way these crews are planned, in the past they used to fall under a category called auxiliary crews and they were not included in the business plan. That has changed, equipping and construction crews are now planned like any other crews and their activities are tracked on a daily basis” said Morutlwa “We have brought in schedulers per operations and their job is to track the equipping and construction activities, in my operation (Tumela mine) this is already bearing fruits” said Chandomba, “as we speak I don’t have standing crews, all our crews have a place to work” he added. Respondents urged that proper management of equipping crews is the answer to ensure 30% or 1.3 panel-to- crew ratio.

Skill shortage

Respondents also quoted skill shortage as a biggest risk hence other mines are considering multi-skilling. They mentioned that when the critical skill like machine operator or winch operator is absent the chances of losing production that day are very high, however almost anyone can operate the drilling machine when that person has been trained. “It is going to be a difficult one, but we are already in discussion with the workers unions to see if we cannot multi-skill our people” said van Zyl.

C. Blasting efficiency

“Blast efficiency is about quality, it’s about getting maximum tons per blast” said van Rensburg. “We have identified three areas that will enable the operations to achieve this i.e. correct drill steel being used, correct amount of explosives per shot hole, getting hole direction correct” van Rensburg added.

Blasting efficiency sub levers:

- a. Drill steel length
- b. Direction of holes
- c. Fragmentation

Drill steel Length

“The quality of our blast is very important, that is what we are trying to address with this lever (blasting efficiency)” said Hlapho. “As we do our monthly planning, we plan to achieve a face advance of one metre per panel per crew, that simple means we need to drill shot holes of 1.2 metre using a 1.5 metre drill steel” explained Chandomba.

“When we audited all the mines’ drill steels, we realised that stoping crews were using whatever they can find, some crews use 1,0 metre drill steels and that contributed to poor face advance, less tons of ore generated per blast” said Nair.

“The drill steels have been standardised across all Anglo American Platinum operations, meaning the drill steel sizes that are not desired are not available for order” said van Rensburg.

Direction and Spacing of shot holes

“Directions of drilled holes was another challenged we observed, holes need to be drilled according to our blast design, that means they must be 90⁰ to the panel in order to give us an optimal face advance (ore tonnage)” said Nair.

To achieve this the company is rolling out the tool to all the crews; it is called the hole director and it enables the machine operator to drill holes at the correct angle, correct spacing and correct length, explained the respondents.

Fragmentation

“Quantity of explosives charged into a hole determines how the rock will break, big rock makes it difficult to transport and the crew might lose production due to poor fragmentation. If the fragmentation is too fine, it also means rock will fly away from the panel and that makes the cleaning difficult and it also means less tonnage per blast” Chandomba explained.

“To ensure proper fragmentation, the charging tools have been redesigned to ensure that only 900g of explosives is delivered into the drilled hole (shot hole), nothing more, nothing less” said Mashapu.

Tracking of lost blasts

“Production Management System is used to track the lost blast so as to assist the operations to see the trends. Lost blast reasons differ from mine to mine” said Cilliers, “and without a tracking system you wouldn’t be able to focus your energy on the ‘major lost’ for your area” he added. “For Tumela mine, night shift cleaning (figure 20 below) is a major constraint and the majority of our production lost are due to incomplete night shift cleaning, this is where we are spending time so that we can understand the root cause of this ‘lost blast’” Chandomba added.

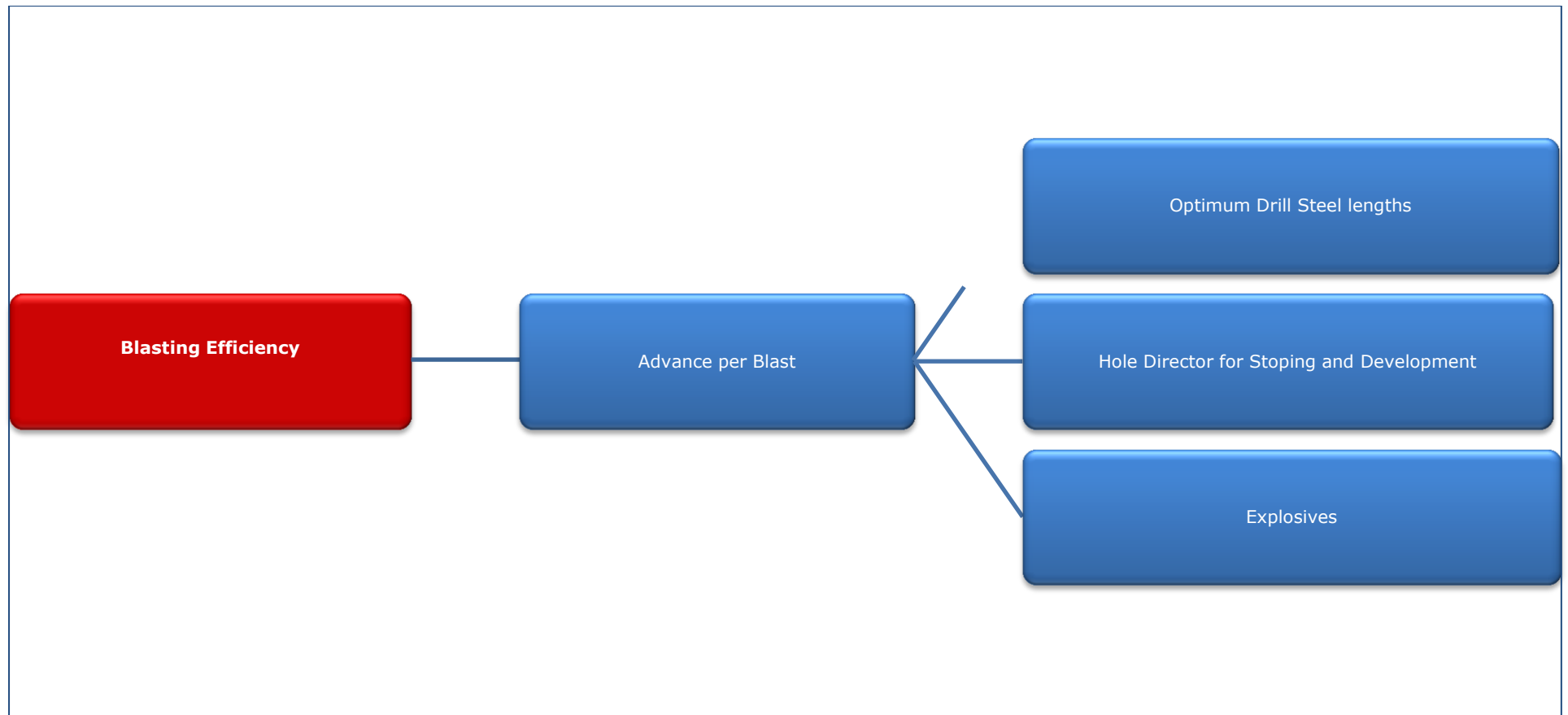


Figure 18: Blasting efficiency value lever (source, Labour Productivity Business case document) provided by van Zyl.

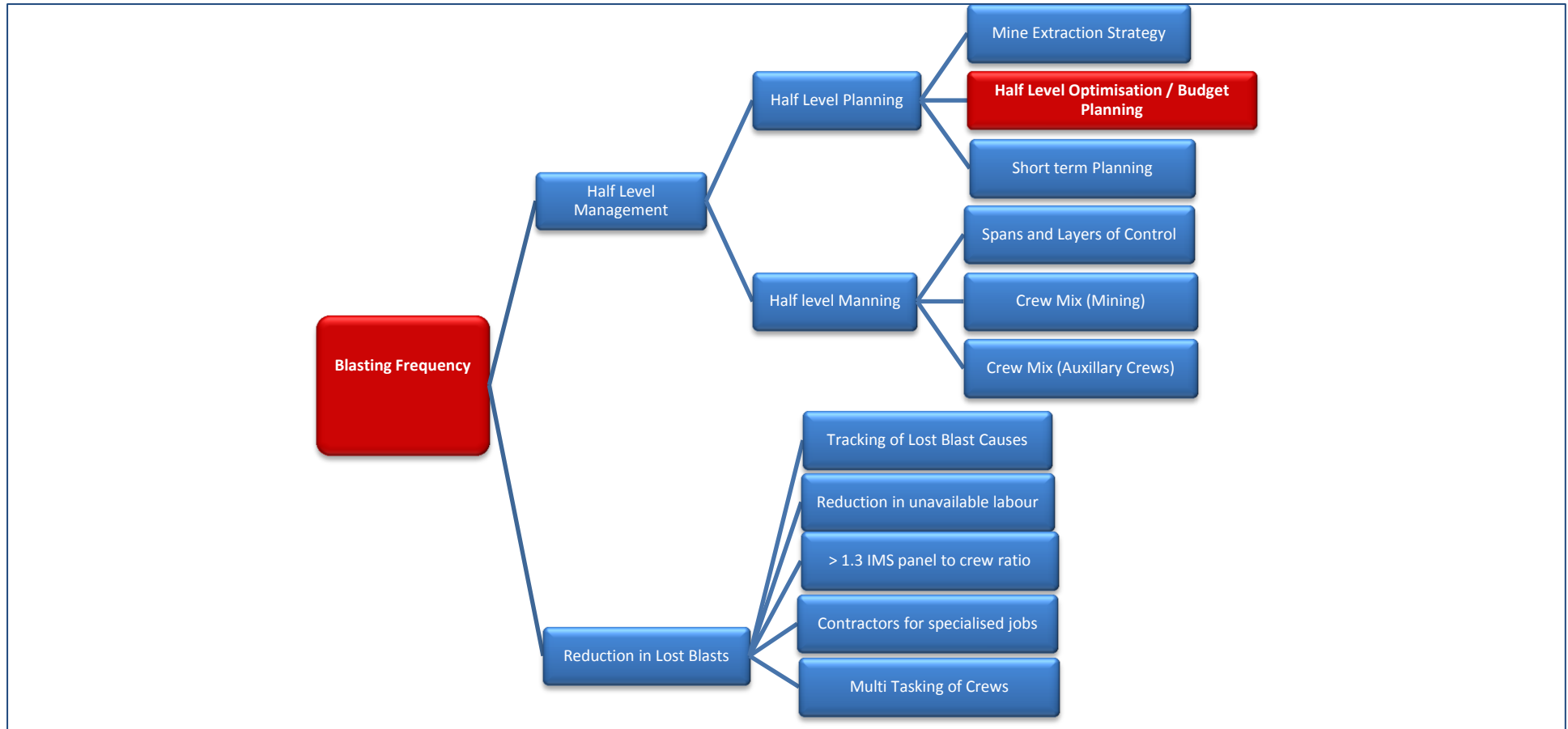


Figure 19: Blasting Frequency and half lever optimisation value lever (source Labour Productivity Business case document) provided by van Zyl

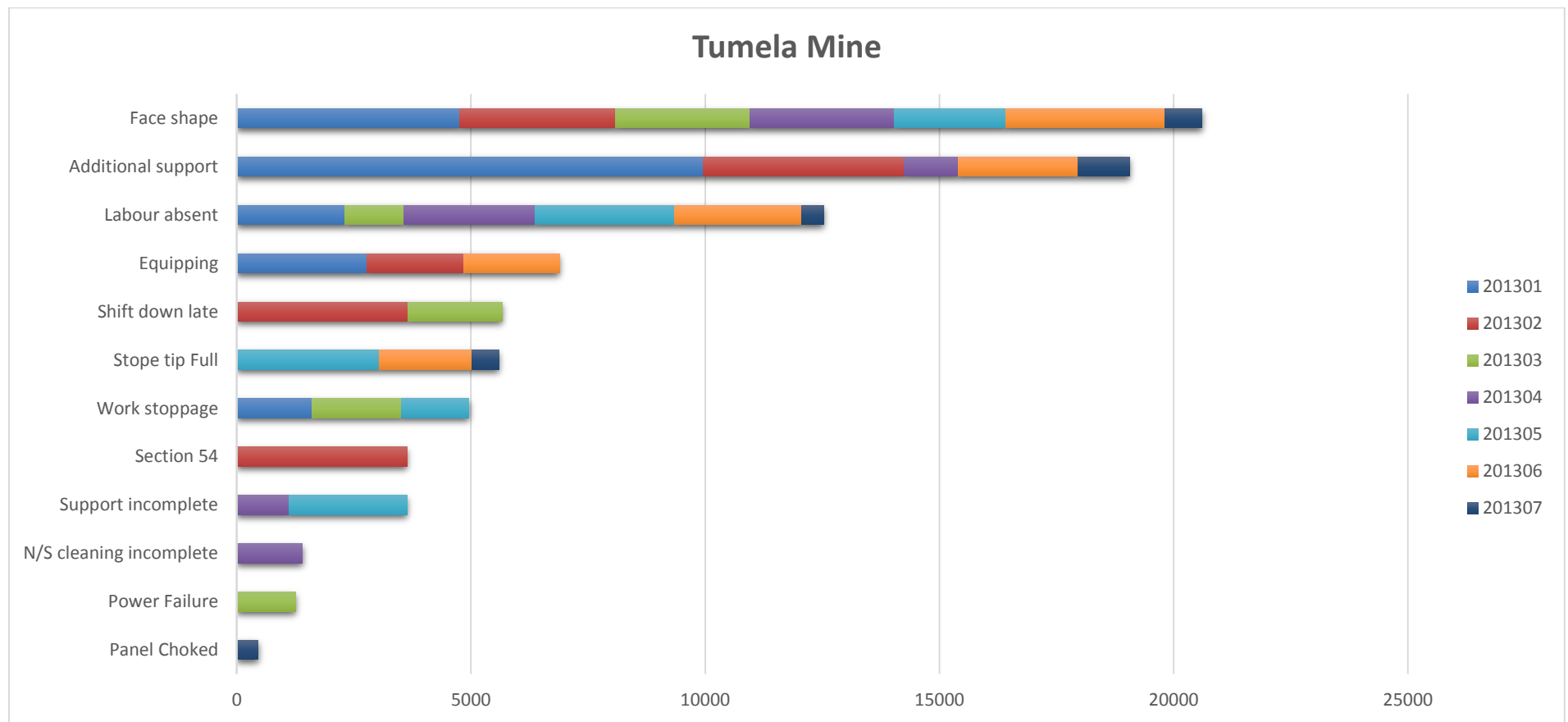


Figure 20: Tracking of Loss blasts (loss of production) provided by Nair.

4.3.4 Expected outcomes of labour productivity i.e. targets

According to the respondents, labour productivity will deliver accumulated profit benefit of R1, 5 billion by end of 2015, this is a total benefit for Anglo American Platinum, and each operation has its own individual target. This benefit comes from the following optimisations projects:

- Additional blast per month per operation (Figure 26 below)
This initiative will improve the face advance by 1 metre, from the group average of 11 metres per crew per month to 12.5 metres per crew per month, it is about 9164m² (approximately 40 000 extra tons per month).
- Improvement on blasting efficiency (Figure 27 below)
Blasting efficiency will add 4781m² (approximately 20 000 tons) of production
- Optimised half level will create R345 Million extra revenue

Van Zyl shared some of the benchmarking and targets that have been allocated per operation. (Figures: 21 and 22) “I must say, although the true value of the labour productivity is higher than these targets, it is important to note that we tried to be very prudent, some operations can still double the target we have given to them especially Tumela Mine” added van Zyl.

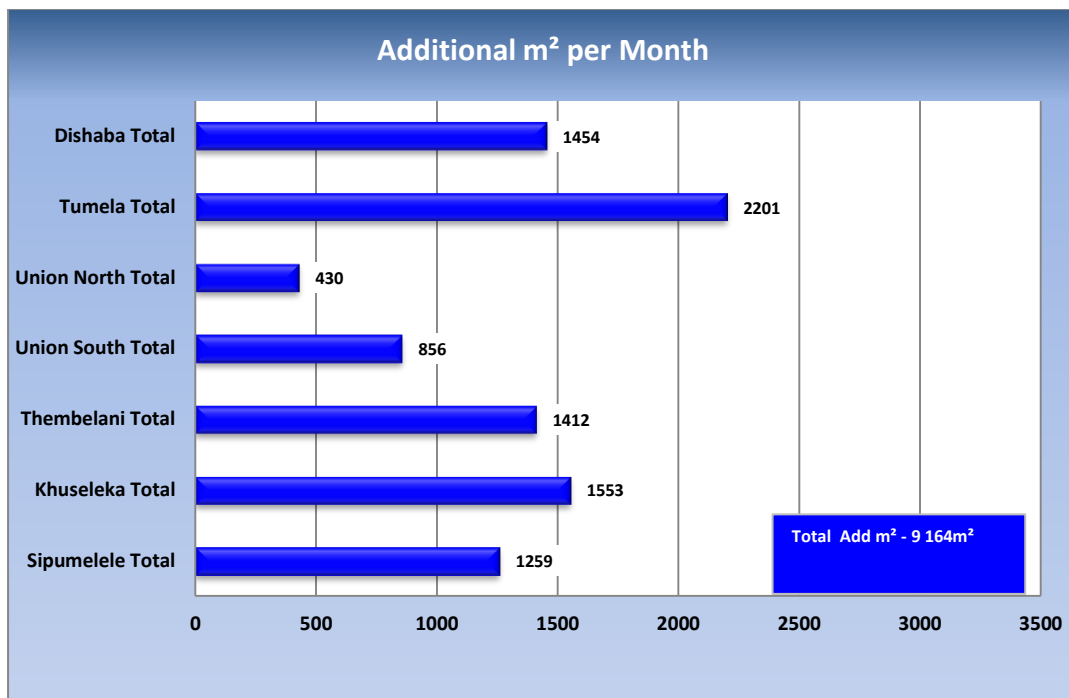


Figure 21: One additional blast per month per mine (provided by van Zyl)

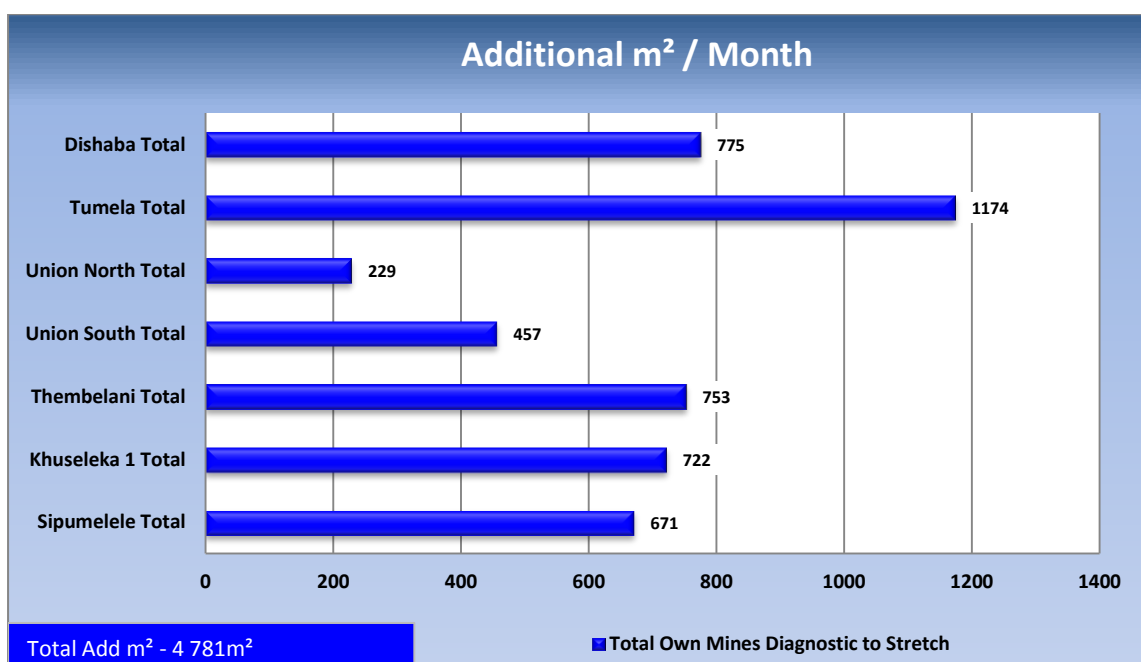


Figure 22: Improved advanced per blast initiatives per individual mine (provided by van Zyl)

4.3.5 The role of senior management to ensure the success of the labour productivity

Business Improvement Managers

Most business improvement managers felt their role was to ensure that the resources required to execute are available, they mentioned scheduling of activities as one of the main functions they are looking after, and one of them did mention training and communication as one of his roles.

Finance Managers

One of the finance managers sums it up like this “at the end it’s about the bottom line and my duty is to ensure that the team has all the financial support to deliver the value we promise our stakeholders”

Senior Mining Engineers

Mining engineers mentioned a lot of things, however; mine design and technical support to the operations in order to achieve the labour productivity targets came up on top.

General Manager:

Overall ownership of the labour productivity strategic thrust.

4.3.6 Action plan to ensure that this initiative does not compromise health and safety of employees

Nair summed this up by mentioned that safety remains Anglo American Platinum’s number one priority. He mentioned that proper risk assessment has been conducted to ensure that this strategic thrust can be executed safely without endangering lives of the workers.

4.3.7 The key learnings in implementation of labour productivity strategic thrust *(Things that were done right and those that could have been done better)*

Communication:

All respondents mentioned communication as one thing that was done badly, the fact that lower levels of the organisation have not been introduced to this new strategic thrust is seen as one of the reasons why the execution is such a big challenge. “In this day and age you cannot introduce something of this magnitude without involving the trade unions” said one of the respondents.

Top down approach:

Some respondents felt that this initiative could have been even better if it was a bottom up approach. “We know that execution might encounter some resistance especially because this good initiative is unfortunately a top down approach. None of us were involve in this, I mean even the senior management at the mines were not involved let alone the low level employees”, respondent noted.

Table 4: Labour productivity programme is well understood across all levels of the organisation

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair				x	
Buks Cilliers				x	
Lallie van Zyl				x	
Carlo van Rensburg				x	
Braam van Zyl					x
Bruce Mashapu				x	
Prince Molusi				x	
Edgar Chandomba			x		
Vincent Naidoo				x	
Tseko Hlapho				x	
Patrick Morutlwa				x	

Table 5: Recourses to support Labour productivity are adequately allocated

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair			x		
Buks Cilliers		x			
Lallie van Zyl		x			
Carlo van Rensburg	x				
Braam van Zyl				x	
Bruce Mashapu			x		
Prince Molusi	x				
Edgar Chandomba		x			
Vincent Naidoo				x	
Tseko Hlapho		x	x		
Patrick Morutlwa		x			

Table 6: Labour productivity KPIs are well understood across all levels of the organisation

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair					x
Buks Cilliers				x	
Lallie van Zyl				x	
Carlo van Rensburg				x	
Braam van Zyl				x	
Bruce Mashapu				x	
Prince Molusi			x		
Edgar Chandomba			x		
Vincent Naidoo				x	
Tseko Hlapho				x	
Patrick Morutlwa				x	

Table 7: Labour productivity KPIs are measured and monitored regularly

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair					x
Buks Cilliers		x			
Lallie van Zyl		x			
Carlo van Rensburg		x			
Braam van Zyl					x
Bruce Mashapu		x			
Prince Molusi		x			
Edgar Chandomba			x		
Vincent Naidoo				x	
Tseko Hlapho		x			
Patrick Morutlwa		x			

Table 8: Reward and recognition aligned with objectives labour productivity.

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair					x
Buks Cilliers	x				
Lallie van Zyl		x			
Carlo van Rensburg	x				
Braam van Zyl					x
Bruce Mashapu					x
Prince Molusi	x				
Edgar Chandomba					x
Vincent Naidoo				x	
Tseko Hlapho					x
Patrick Morutlwa					x

Table 9: Priority table for three strategic levers of labour productivity

Respondent	Half Level Management	Reduction in lost blasts	Advance per blast
Logan Nair	1	2	3
Buks Cilliers	1	3	2
Lallie van Zyl	2	1	3
Carlo van Rensburg	3	2	1
Braam van Zyl	1	2	3
Bruce Mashapu	1	2	3
Prince Molusi	1	2	3
Edgar Chandomba	2	1	3
Vincent Naidoo	1	2	3
Tseko Hlapho	1	2	3
Patrick Morutlwa	1	2	3

4.4 The results pertaining to what the main challenges are in the implementation of strategic thrust to improve labour productivity

4.4.1 Main challenges

Critical skill

Respondents from the Rustenburg operation (Thembelani, Khuseleka and Bathopele mine) mentioned the critical skill shortage as a major stumbling block; there is a feeling that since Anglo American Platinum is intending to exit Rustenburg operations, including Union Mine in Swartklip, these operations are no longer given preferential treatment.

One of the examples given was that a mine like Union has one person in Business improvement department while Tumela mine (one of the flag ship mines) which is the size of Union mine has more than 20 people, including external consultants.

Financial

Financial constraints came as another hurdle; respondents stated that once the business case has been approved for these initiatives to kick off as per the requirement, it takes forever for the capital to be approved which means some of the labour productivity projects will have to be done on working cost which is not always enough.

Operations within Rustenburg and Union mine are the ones that seemed to be most affected by this ordeal. "Our operations have smaller margins, we cannot afford to spend working cost budget on other things and that makes it very difficult for us, we need to implement labour productivity for our survival at the same time we cannot risk our cash flow" said Hlapho.

ER (employee relations) environment

“Unfortunately the ‘stop-start’ due to endless strike actions is not good for execution” said Mashapu, “here at Tumela we are doing our best to put systems in place so that when the strike is over we can start delivering, however the fact remains we will have to start from scratch once everybody is back from strike otherwise there will be no buy-in from the rest of the employees” Mashapu concluded.

Respondents also shared how difficult it is to try and sell the strategy during the tense period of the strike season “You need to be careful, the conversation about labour productivity thrust might be misunderstood” Naidoo said, “some people already think that this will assist the company to give them a massive salary raise whilst this is just for profitability so that we can stay in business” Naidoo concluded.

Communication

All the respondents mention communication as a downfall in the execution of labour productivity thrust saying the company has put in a lot of effort to ensure that top management and middle management understand the new strategic thrust, however the line management and rest of the employees at the coal face have no idea about this strategy, the communication has not filtered to the lower levels and it does not look like the company has plans to extend the communication to lower levels, said respondents.

Reward

Reward was also mentioned by respondents as the challenge stating that the new bonus system which was designed to encourage productivity and teamwork is actually worse than the previous bonus. Hlapho made an example about the reclamation crews, he said these crews currently get a mine average bonus, meaning that even if they have not reclaimed, they will still get paid a bonus. “The best practice in the industry is to give bonus based of performance, so equipping crews’ bonus should be based on the number of working places they equipped; at the moment the current bonus system does not encourage productivity” said Hlapho

Availability of face length (panel to crew ratio)

As mentioned earlier when the panel to crew ratio was discussed, the availability of face length link to panel to crew ratio arose. Respondents mentioned that most operations do not have enough face length to keep all the crew working; “on average there is always five to ten crews per operation without a home (working place), for the total company this equate to about more than forty crews per month, it is like taking the entire mine out of production but continue to paying the working cost,” said Nair. This is the big challenge according to respondents, because building face length takes time, in most case it can take up to thirty six months. “ All I am saying is that yes, we know what must be done to improve labour productivity, we are busy putting systems in place but it will take some time to realise the full benefit” said Morutlwa.

Stakeholder management

All respondents felt that the company has not done enough to obtain necessary buy-in from all relevant stakeholders listed below:

- Employees
- Trade unions
- Government (Department of Minerals Resources)
- Communities
- Traditional leaders
- Suppliers

The employees, trade unions and government are regarded as primary stakeholders by respondents; they felt that primary stakeholders could have been involved from the beginning of the journey.

Corporate Social Responsibility (CSR)

One respondent (Nair) mentioned this as a potential stumbling block; he argued that a mine like Unki (an Anglo American Platinum owned mine in Zimbabwe) is

positioned to perform better simply because it is a family friendly operation. Unki has a mine village to accommodate employees with their families that has been built next to the mine, together with schools and a shopping complex.

“Family is a very important, a worker who knocks off from work and goes to his or her family is better off than the one who knocks off and go to the informal settlement because his family is in Eastern Cape or Mozambique” he said, The Anglo American Platinum properties in Rustenburg and North of the Pilanesburg were not built with this idea in mind, according to Nair. “We have learnt from this, the future mines will follow Unki’s blueprint to ensure that our employees have family support at all times” he said.

Alignment:

“There are three things one need to manage carefully to ensure successful transformation, it is structure, systems and morale” said van Zyl.

Van Zyl mentioned that he adopted this pillar model from McKenzie while he was in the process of transforming his own operation before joining Anglo American Platinum.

He acknowledged that Anglo American Platinum has good systems to support successful implementation of labour productivity; however the structure is sometime not aligned with the systems that are being used. “A lot was done to ensure proper alignment during restructuring process however there is still a room for improvement, morale is something we cannot ignore, we need to give it equal attention as system and structure” said van Zyl.

Van Zyl stated the company needs to spend more time on ‘we care’ one of the Anglo American Platinum values, “we need to win our employees back, we need to up the morale, once the morale is up, safe production will come” he added. “One of the biggest potential stumbling blocks will be failure to spend equally time in those attributes, morale, structure and system, especially morale of the people” said van Zyl.

HR systems

Lack of proper human resource labour planning was also raised, “we are unable to plan for the future skills. The mines are forever complaining of shortages of artisans and technicians” said Chandomba. Most respondents felt that the labour planning has a potential of derailing the labour productivity initiative.

4.4.2 What should been done to prevent the above mentioned challenges?

The purpose of this question was not to try and find answers or solutions to the challenges but rather to assess the effectiveness of leadership to deal with execution challenges (Beer & Eisenstat 2000).

Communication:

Respondents felt most of the problems are as a result of poor communication, they felt that if the company can ensure that this intervention is properly communicated to all relevant stakeholders especially the employees and trade unions, “that alone will give the execution a big boost” said Mashapu.

Resources:

Unavailability of resources was also raised, as mentioned earlier this came from Rustenburg operations and Union mine, the resources that were mentioned were:

- Finance
- Support staff i.e. Schedulers

Table 10: There is an effective cross sectional structure that supports the execution of labour productivity

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair			x		
Buks Cilliers		x			
Lallie van Zyl		x			
Carlo van Rensburg				x	
Braam van Zyl		x			
Bruce Mashapu		x			
Prince Molusi				x	
Edgar Chandomba		x			
Vincent Naidoo				x	
Tseko Hlapho				x	
Patrick Morutlwa		x			

Table 11: Senior management is aligned on priorities involving labour productivity

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair				X	
Buks Cilliers		X			
Lallie van Zyl		X			
Carlo van Rensburg		X			
Braam van Zyl				X	
Bruce Mashapu		X			
Prince Molusi		X			
Edgar Chandomba		X			
Vincent Naidoo		X			
Tseko Hlapho		X			
Patrick Morutlwa		x			

Table 12: There is a continuous feedback to track the improvement made and to address shortfalls during implementation of labour productivity.

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair				X	
Buks Cilliers		X			
Lallie van Zyl		X			
Carlo van Rensburg				X	
Braam van Zyl				X	
Bruce Mashapu		X			
Prince Molusi			X		
Edgar Chandomba		X			
Vincent Naidoo		X			
Tseko Hlapho		X			
Patrick Morutlwa		x			

Table 13: Training and development of newly acquired skills

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair			x		
Buks Cilliers	x				
Lallie van Zyl	x				
Carlo van Rensburg					x
Braam van Zyl				x	
Bruce Mashapu		x			
Prince Molusi	x				
Edgar Chandomba		x			
Vincent Naidoo		x			
Tseko Hlapho		x			
Patrick Morutlwa		x			

Table 14: Top management is available to address concerns directed to labour productivity thrust

Respondent	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Logan Nair			X		
Buks Cilliers	X				
Lallie van Zyl		X			
Carlo van Rensburg		X			
Braam van Zyl				X	
Bruce Mashapu		X			
Prince Molusi		X			
Edgar Chandomba			X		
Vincent Naidoo		X			
Tseko Hlapho		X			
Patrick Morutlwa		x			

5 CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter discusses the research key findings from the structured interviews. To avoid repetition of material already covered in chapter 4, the researcher only brings new perspective or provides more clarity of the material already covered in chapter 4. The demographic profile of respondents is not covered in this chapter. There are only three sections covered: Research question One, Research question Two and conclusion.

5.2 Demographic profile of the respondents

Refer to Chapter 4

5.3 Discussion pertaining to how Anglo American Platinum implements a strategic thrust to improve labour productivity

It is crucial for the organisation to have a clear strategic statement (Collis & Ruskstad 2008). It was established that Anglo American Platinum leadership team spent time evaluating the then strategy, which was volume driven, and it is evident that they took time comparing that strategy to the current market environment. Undoubtedly the decision was taken to move away from volume strategy to what is now called optimisation strategy. As Collis and Ruskstad (2008) stated, a well-articulated strategy statement helps facilitate an easy strategy formulation, it clearly came out during the interviews that formulating the strategy was a well-coordinated process, senior management teams knew exactly what needed to be done to optimise operations, thereby managing cost and enhancing the profit. This sentiment is supported by Beer and Eisenstat (2000), who suggest that the strategic statement needs to be articulated in the manner that links it to the competitive environment, performance goals and a need to change the culture, the big culture change for

Anglo American Platinum was a transaction from volume driven profit strategy (produce more and make more profit) to optimised profit strategy (focus on improving the profit margin), 15% profit margin is a new buzz word.

The purpose of environmental scanning is to identify the strategic factors, both external and internal that will influence the future of the organisation (Wheelen & Hunger 2004:9). During the interviews, it came out very clearly that the labour productivity thrust is aimed at responding to the environmental factors listed below.

External Factors:

- Platinum Price

Internal Factors:

- Production efficiencies
- Cost of production

Implementation of strategy is very effective if the strategy has clear deliverables, such deliverables should be easily interpreted in the language that is understood by everyone in the organisation (Mankins & Steele 2005) hence Anglo American Platinum broke down the labour productivity thrust to the language applicable to the low level employees i.e.

- Blasting efficiency
- Blasting frequency
- Half level optimisation

The issue of roles and responsibility is very important for the success of execution, companies that fail to outline the roles and responsibilities at different levels of the organisation find it difficult to effectively execute the strategy (Nelson, Martin & Power 2008). Respondents interviewed knew exactly what their respective roles are with regard to labour productivity strategic thrust.

Interpreting the tables' results:

Although all respondents that were interviewed were conversant with the labour productivity, 10 out of 11 respondents felt that the strategy was not communicated effectively to lower level employees (Table 4).

The majority of respondents felt that the resources allocated to support execution were adequate; two respondents thought that the company has not provided mining operations with schedulers who can update labour productivity charts (Table 5). One of the reasons why strategy execution fails is the company's inability to deploy critical resources timeously (Mankins & Steele 2005).

Nine interviewees responded negatively on questions around the KPIs being understood across all level of the organisation (Table 6), they felt that the company has not communicated these to the lower levels, including junior management. Wheelen and Hunger (2004, p. 242) argue that it is critical for senior management to identify the key performance indicators to be monitored and communicate these to the rest of the organisation. The respondents were comfortable about the process that is in place to measure the KPIs (Table 7).

The issue of reward and recognition was a big concern (Table 8), the majority of the respondents felt that the company's reward and recognition was totally misaligned with the labour productivity, Otley (1999) suggests that the reward and recognition should be aligned with the company's goals and objectives; it must act as the catalyst that drives the strategy (Otley 1999).

Mankins and Steele (2005) emphasise that organisations should prioritise the tactics and actions that add value to the execution, which means prioritisation of the strategy programmes. Table 9 shows that there is a high level of understanding which programs should be prioritised in order to get the best out of labour productivity thrust.

5.4 Discussion pertaining to what the main challenges are in the implementation of strategic thrust to improve labour productivity

Main Challenges:

Challenges were discussed in detail in chapter 4 and are as follows:

- Shortage of critical skills
- Finance
- Employee relationship
- Communication
- Reward and recognition
- Availability of face length
- Stakeholder management
- Corporate social responsibility
- Alignment

Beer and Eisenstat (2000) argue that organisations that get through the strategy execution phase are those that have the ability to foresee the possible stumbling blocks and prepared for them. It did not come out clearly from the interviews whether these problems listed above were identified as potential barriers during the planning phase. The frustration among the respondents indicates that some of these were not picked up during the planning phase, as a result there is no action plan to deal with them.

The second biggest strategy execution flaw is having many potential barriers surfacing during the execution phase (Alexander 1985)

Interpreting Table Results:

Beer and Eisenstat (2000) pointed out silos within the organisation as one of the major challenges in execution, they suggested that organisations need to eliminate

these silos that hinder execution by putting together a multi-disciplinary team to head up the execution process. Six of the respondents' comments suggest that the silos did not exist in their operations; however four felt that there was still a big divide between functions, therefore execution was not fully enabled (Table 10). Beer and Eisenstat also noted that most of the time, the misalignment is brought about by the senior management that is not aligned; they do support the execution strategy but do not share the same view on how it should be executed. Table 11 tests the alignment of the senior management at Anglo American Platinum; nine respondents felt that the senior management share a common goal.

Wheelen and Hunger (2004) states that inability to put proper feedback mechanisms in place that allow the organisation to continuously learn as the execution process unfolds is one of the big challenges facing strategy implementation. However Anglo American Platinum seems to have all under control, according to seven of the respondents who felt that the company has an existing platform to share all the execution learnings (Table 12). The feedback mechanism should also trigger training and development of those in the face of execution, respondents felt that this was also happening in Anglo American Platinum.

Table 14 assesses the availability of senior management to address labour productivity directed concerns. Hrebiniak (2006) suggested that the fact that senior leadership formulate the strategy and hand the ball to lower levels for execution, is one of the reasons why strategy fails, he continue to say senior management become unavailable to deal with the execution challenges. Respondents felt that senior management was readily available to attend to concerns arising during the execution phase.

5.5 Conclusion

Analysing all eleven interviews, one can conclude that Anglo American Platinum is on track with the execution of labour productivity thrust, the strategy formulation was done thoroughly, ticking almost all the items that were covered in the literature review. It must be noted that the operational personnel that are now leading the

execution were not involved in strategy formulation, and according to Hrebiniak (2006), this is a major flaw since execution starts at strategy formulation, therefore the two processes cannot be separated. Another alarming point is the fact that communication was poorly done, especially to the lower level employees; as a result even the KPIs are not fully understood by the workforce. Although it seems as if the company is well positioned to tackle the challenges arising from the execution of this strategic thrust, there are a number of serious challenges that seemed to have been overlooked.

6 CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

To avoid repetition of the material already discussed in chapter 5, this chapter focuses on the following sections:

- Recommendations and
- Suggestion for further research.

6.2 Conclusion of the study

Refer to chapter 5 (5.5)

6.3 Recommendations

Respondents listed nine main challenges in the implementation of labour productivity thrust.

Shortage of critical skills:

It looks like Anglo American Platinum suffered from what Mankins and Steele (2005) called “poor resource planning”, Mankins and Steele discovered that 8% of the good strategies fail due to poor planning of resources. Respondents felt incapacitated by the shortage of personnel or desired skill to drive the initiatives, Anglo American will have to relook at this issue as it is a potential implementation killer.

Finance:

Wheelen and Hunger (2004) mentioned this as one of the major stumbling blocks in the strategy implementation, they recommend that each programme or initiative should get correct cost allocation so that everyone knows how much it costs to implement and what is the benefit thereof. It seems as if that is not the case at Anglo

American Platinum hence the frustration due to long lead times when it comes to finance approval.

Employee Relationship:

The matrix of change should be drawn out by an organisation intending to implement the change in the organisation; such matrix will enable the organisation to continuously engage with employees to ensure there is always a high level of trust and high morale. Failure to do this might create mistrust and confusion. According to the respondents, the employees' engagement was never done, as a result, the low level people have no clue why they should do things differently; they do not support the labour productivity initiatives, anyway they know nothing about it.

Communication:

As revealed from the literature review that was covered, investing in proper communication channels is a key to effective strategy execution. Communication should not only mean a top down approach but more of a bottom up approach as that will create a sense of ownership.

Reward and Recognition:

Otley (1999) explained it very well "link the reward and the recognition to the KPIs that matter"; he continues to say that reward and recognition should be the catalyst that helps to drive the behaviour that you want. It should not be counterproductive. Unfortunately this still need to be fixed at Anglo American Platinum, Respondents complained that reward and recognition is not linked to the KPIs that drive high labour productivity.

Availability of face length:

Just like availability of the budget, there should be a proper procedure on how the things are going to be done, if it is a change in operational procedure it should be documented, if it is the change in the utilisation of resource then the new specification should be provided. The outcry about the unavailability of face length

indicates that this was not planned properly; perhaps Anglo American Platinum might have to invest in this before harvesting the benefit of labour productivity.

Stakeholders Management:

Stakeholders' engagement is similar to employee relationship; for every change in the organisation, effort should be made to ensure that all those that will be affected by the change, be it direct or indirect, be it positive or negative, such stakeholder should be informed on time to avoid confusion that might derail the implementation. This sentiment is supported by the literature review (Beer & Eisenstat, 2000).

Corporate social responsibility:

Unfortunately this is too political and differs from company to company but perhaps Anglo American Platinum might have to investigate what other peers are doing to cope with prevailing CSR issues in the South African mining industry.

Linking strategy formulation to strategy execution (alignment):

The "us and them syndrome" prevails in situations where people in charge of the execution are not given a chance to have their input during strategy formulation. Although most respondents expressed their support for the new strategic thrust, they were quick to mention that they were not involved in the formulation.

6.4 Suggestions for further research

Mining companies in South Africa are always faced with the challenge to continuously adjust their strategies to respond to the ever changing market environment and labour climate. Personally throughout my career, I have seen good strategies failing to take off for one reason or other. This research was conducted in order to evaluate the strategy execution in one region of Anglo American Platinum (the Western Limp); the following areas are suggested for future research:

- Extending the population to include other stakeholders

The targeted population were senior management at the mining operations; there are still two to three management layers below the level that was interviewed, as well as three supervision layers before one gets to the general employee levels. This study highlighted concerns when it comes to communication. Most respondents felt that the management layers below their level did not fully understand the labour productivity strategic thrust; they also mentioned that the trade unions, employees' representatives and government were also left out in the communication. Extending the population might help to uncover the size of this problem

- Cross company study

There are three medium to large sized platinum producers in South Africa (Lonmin, Impala and Anglo American Platinum); cross company study could give information that can benefit all of them. Extending the study to include the joint venture and smaller producers can be even more beneficial as it is clear that those are more effective in turnaround strategies as compared to the big three, what is their recipe?

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APPENDIX A

Request email to respondents

Dear Mr. _____,

I am an MBA student at Wits Business School and am currently completing my research report in order to fulfil all requirements for the Masters degree. My research topic is entitled: "Evaluating the implementation of labour productivity programme which is a new strategic thrust in Anglo American Platinum", and I kindly ask for your assistance in affording me an opportunity to meet with you. It is my intention to relate research to literature review I have conducted thereby comparing actual practice to best practice.

I expect the meeting to last for approximately 25 minutes. The meeting will take the form of an interview in which I would like to discuss the execution phase of labour productivity programme.

I will gladly provide you with a copy of my findings upon completion of my research.

I thank you in advance and look forward to meeting with you.

Yours faithfully,

Ntokozo Ngema

Tel: 083 280 7358

E-mail: nngema@angloplat.com

Interview outline for respondents

The principles of strategy execution

Details of the respondent:

Date:

Time:

Respondent name:

Title:

Question one:

What is labour productivity strategic thrust?

Why did Anglo American Platinum embarked on labour productivity thrust? What is its importance to the organisation? What it entails? What is your role to ensure that it becomes a success? What are the deliberate actions or programs? What are the targets? What has been done to ensure that this strategic thrust does not compromise health and safety of employees?

Question two:

What do you think are the key leanings in implementation of the labour productivity strategic thrust?

Things you think were done right and those that could have been done better (the good and the bad)

Question Three:

The followings statements relate to strategy execution, please read carefully in order to give your view on the implementation of labour productivity strategic thrust

1. Labour productivity strategic thrust is well understood across all levels of the organisation

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

2. The resource deployed for the execution of the labour productivity strategic thrust is adequate

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

3. The key performance indicators are well understood throughout all levels of the organisation

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

4. The key performance indicators are measured, monitored and reviewed regularly

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

5. The current reward and recognition scheme supports the labour productivity strategic thrust

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

Interview outline for respondents

Challenges in strategy execution

Details of the respondent:

Date:

Time:

Respondent name:

Title:

Question one:

Describe the main challenges in execution of the labour productivity strategic thrust?

Question two:

What do you think could have been done to eliminate the challenges you explained above?

Question three:

The followings statements relate to how the organisation deal with common challenges in strategy execution, please read carefully in order to give your view on how you think your origination manage such challenges

1. Our organisation has an effective cross-functional structure that supports the execution of the strategic thrust

We do not operate in silos

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

2. Senior management is always aligned when it comes to business priorities involving labour productivity

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

3. The open door policy enable us to get continues feedback on what works and what doesn't with our new strategic thrust

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

4. Continuous training and development to ensures that acquired new skills form part of how we will do things in the future

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
-----------------------	--------------	----------------	-----------------	--------------------------

5. Senior management spends time to address problems and concerns associated with the execution of the strategic thrust

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

6. If you were to rank the labour productivity programs how would you rank the three main categories?

Mining Labour Productivity		Ranking
Blasting Efficiency	Advance per blast	
Blasting Frequency	Half level management	
	Reduction in lost blasts	

Thank you for your participation

APPENDIX B

Interview transcripts

Interview transcripts are not provided in the current research report.

Transcripts will only be provided upon special request and the reader is kindly requested to contact the researcher: nngema@angloplat.com

APPENDIX C

Consistency matrix

Table 15: Consistency Matrix

The problem to be researched is the gap between the design of the labour productivity strategic thrust and the implementation of it.					
Main problem	Literature Review	Research questions	Source of data	Type of data	Analysis
The problem to be researched is the gap between the design of the labour productivity strategic thrust and the implementation of it.	Beer and Eisenstat 2000, Collis and Ruskstad2008, Corboy and O'Corrbui 1999, Hrebrenaik 2006, Mankins and Steele 2005, Neilson and Martin 2008, Otley 1999, Wheelen and Hunger 2004	How does Anglo American Platinum implement the strategic thrust to improve labour productivity? What are the main challenges in implementation of the strategic thrust to improve labour productivity?	Actual interview – the questions are listed in Appendix A	Interview transcripts and personal notes.	Qualitative Content Analysis (Burns & Grove, 2005)

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