Strategic Performance Management using a Balanced Scorecard approach

BPJ 420

Final Report

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EXECUTIVE SUMMARY

The Balanced Scorecard Methodology provides the necessary framework for strategic alignment. It is recognised as an important tool to manage the performance of the operational strategy.

The IDC provides grants to its clients to promote economic growth and needs to keep track of how these grants are expended. The IDC wants to introduce performance management to all of its client companies in the textile sector. They have identified some important measures that have to be met, but their current standard does not allow for overall performance management and has some critical problems.

The conceptual design shows the steps that can be taken to improve overall performance management of the client companies of the IDC. Visual presentation of performance in terms of different colours was identified as an important technique to increase the understanding of how different areas in an organisation are performing.

A solution concept was developed that included a strategy map based on the objectives presented by the IDC. The solution was then created on two different software packages. An Excel solution, which allows the client companies to install a cost-free solution, and a solution that was designed on QPR, a Performance Management System. The Performance Management System was recommended, because it includes a lot of additional features that the Excel solution cannot provide.

The solution offers managers the opportunity to have increased visibility of the performance of the company. The managers can easily identify areas of the company that is under-performing and set new initiatives for these areas or adjust the targeted performance if it is unrealistic. The IDC can monitor the performance of the client companies to identify areas of struggling and to develop action plans and send out specialists to implement changes. Ultimately the IDC wants the client companies to perform and the solution model will improve the communication of the performance of the client companies between the clients and the IDC. This will provide the IDC with more visibility of how the grants are being used to improve economic growth.

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1. INTRODUCTION

Every organisation has a vision of where they are going and what they want to achieve over a period of time. The vision is usually complemented by a strategy plan that guides decision making throughout the organisation. The strategy plan identifies certain objectives and the required level of performance for each objective that will allow the organisation to reach its long term goals.

This report focuses on how the Balanced Scorecard methodology can be used to aid the selection of the strategic objectives and to manage the performance of these objectives to ensure that the organisation achieves its vision.

The project has been completed at the IDC (Industrial Development Corporation of South Africa).

2. BACKGROUND

2.1. Project Background and Rationale

The IDC provides financing for industrial development projects in a vast variety of sectors such as the clothing and textile, mining, agro-processing and manufacturing industries. The IDC receives a percentage of South Africa's import and export duty from SARS and provide grants for companies to promote regional economic growth.

The IDC plays a catalytic role in promoting partnerships across industries to promote economic growth and want to lead the creation of viable new industries by using their diverse industry expertise to drive growth in priority sectors and taking on high-risk funding projects.

It is because of these high-risk funding projects that the IDC want to keep track of the performance of grant recipient companies. The IDC started to create a performance tracking system by having the grant recipient companies (client companies) complete a questionnaire to assess the impact of the grant and to access where improvements to their program can be made to improve its effectiveness.

The current system does not give the IDC good visibility over the client companies' performance and thus cannot see where companies need extra support to meet certain requirements. There is a need for a performance management system that will provide the IDC with timely information about the performance of the client companies.

A pilot project will be completed at Glencarol (Pty) Ltd and if the project is successful, there is an opportunity to expand the project to other companies in the clothing and textile sector.

Glencarol is the leading sock manufacturer in South Africa. The factory is situated in Babelegi about 50km outside Pretoria. A wide variety of men's and ladies' socks are produced at the factory that supplies the middle to upper end of retail markets including larger fashion and discount retail chains. Exports into Europe, United Kingdom and USA have proven that Glencarol has high international acceptability in terms of price, quality and service.

Glencarol has a performance management system that measures the financial performance of the company. This system does not adhere to all of the performance requirements specified by the IDC and additional work is required to obtain the data required for the questionnaire. There is a need for a more structured performance management system that will address both the IDC's and Glencarol's performance concerns.

2.2. Project Aim

The aim of the project is to design a performance management system that will provide more visibility to managers on how the strategic objectives are achieved.

The system will allow manual data entry through a user friendly interface. The data will be displayed on a dashboard that will show the performance of actual achievement versus the required target set for each objective. This will enable managers to identify problem areas faster and to take action in the areas that are under-performing or the performance is declining.

The system will also serve as a tool to report the progress of the company to the IDC. The IDC will be able to see which areas in the company are performing and which areas require intervention.

3. LITERATURE REVIEW

3.1. Performance Management

Every organisation needs to perform to a set standard in order to reach its goals. By managing the performance of an organisation it ensures that it is focused to achieve its strategic and operational objectives.

Prof Jon S. Bailey (PhD, BCBA-D, Florida State University) describes Performance Management as being systematic with clear processes and procedures focusing on driving performance and outcomes. It is data-orientated, meaning if you can measure it you can manage it. A performance management system can be used as positive reinforcement to motivate employees in a non-threatening manner.

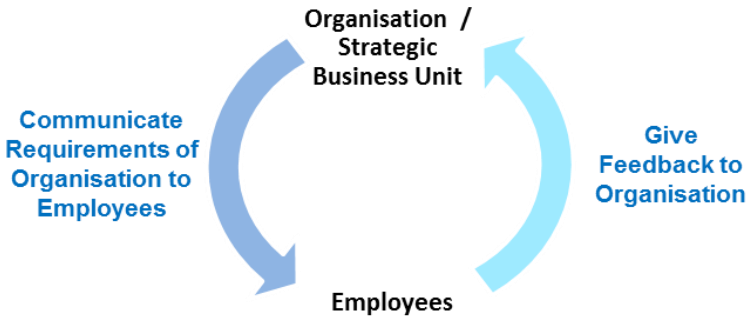
The Aim of Performance Management

- To help create a culture of performance in the organisation.
- To implement a system that is communicated and understood in order to monitor an organisation or individual performance.
- To provide a tool that will assist in ensuring that there is strategic alignment between various organisational objectives.

Performance Management System

A performance measurement system embodies situational analysis of information, corrective actions and result evaluation. It allows managers to communicate requirements of the organisation to employees and in return enables the employees to provide feedback regarding the requirements.

Figure 1: Communication structures



A performance management system includes measures that ensure the individual or organisational targets are met to assist the management team in meeting the organisation's strategic goals. It provides management with higher visibility of key areas within the organisation and enables managers to base decisions on actual results which can lead to faster and more accurate decision making. Performance management can be used to motivate employees, to improve a company's financial position and to improve management control.

An effective Performance Management System must be able to:

- Accurately reflect a business situation.
- Guide employees to make the right decisions in situations where action is required.
- Gauge the effectiveness of those actions.

The Value of Performance Management

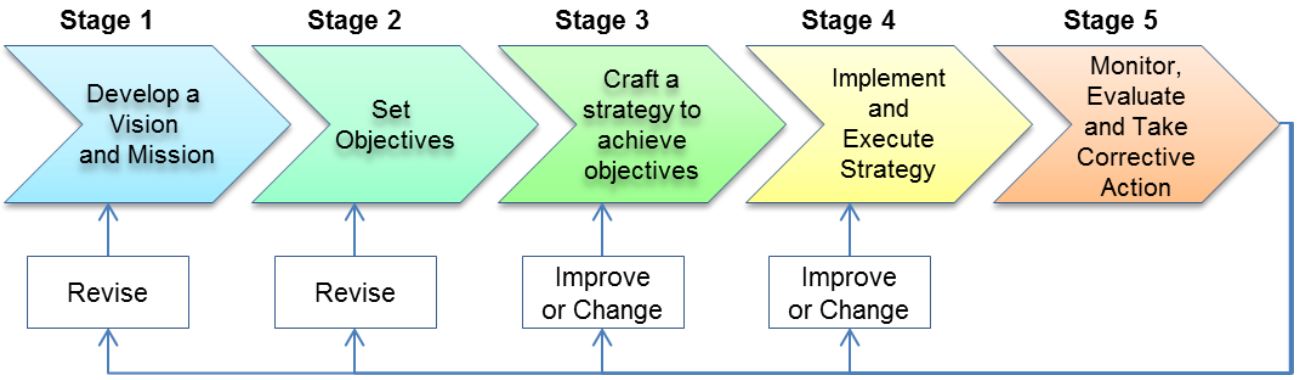
- Provides indicators of performance over time.
- Makes performance more transparent, allowing assessment of whether objectives are being achieved.
- Helps clarify business objectives and responsibilities.
- Informs stakeholders about service delivery.
- Encourages on-going performance improvement.

3.2. Strategic Management

Strategic management is conserned with creating and managing plans to take the organisation to the planned level of performance. Strategic plans and projects are identified to reach the required performance for each objective. Advantages of a strategic plan are that it helps to keep the focus on the goals of the organisation and that it drives better decision making with fewer mistakes.

Stages of Strategic Management

Figure 2: Stages of Strategic Management



Stage 1: Develop a Vision and Mission

A mission statement defines the organisation's purpose, why the organisation exists and primary objective function in terms of measures while the value statement also defines the organisation's purpose, what is important to the organisation but in terms of the organisations values. By defining the mission and vision statements clearly the intentions of the management team is communicated clearly to the employees to ensure that everyone is working towards a common goal.

Stage 2 and 3: Set objectives and craft a strategy to achieve objectives

Using the Vision and Mission of the organisation as a guide, objectives are created to aid the organisation in achieving the desired goals effectively and efficiently. A strategy map is designed to achieve all of the objectives with the aid of a Balanced Scorecard to monitor the performance of each of the objectives over time.

Stage 4: Implement and Execute Strategy

The Balanced Scorecard uses measures to aid in the process of accomplishing the said objectives. To execute the measure effectively, initiatives are identified to support the execution of the measures.

Stage 5: Monitor, Evaluate and Take Corrective Action

Monitoring is an integral part of day-to-day management activities. It entails the collection and analysis of data to inform management and stakeholders of the progress and performance of the organisation.

Evaluation refers to the periodic assessment of issues such as efficiency, effectiveness, economy impact and sustainability of activities in relation to stated objectives. Evaluation is generally conducted using baseline surveys with assessment studies to measure change.

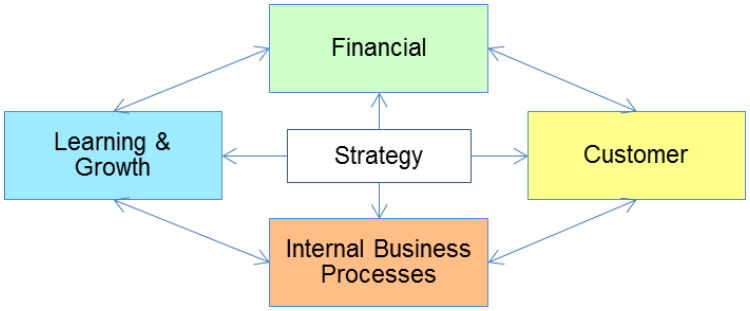
If the progress or performance of the organisation is not performing as required, corrective action should be taken to identify and eliminate the root causes of a problem. This may lead to a revision of the organisational mission or objectives or an improvement or change of the strategy plan or the execution of the strategy.

Once the organisational strategy is determined, various objectives and measures are established to measure the performance of the organisation. The Balanced Scorecard with strategy maps are used to design the strategy plan by relating key measures of performance to the strategy and can also be used to manage or track the execution of a strategy.

3.3. Balance Scorecard

The Balanced Scorecard method was created in 1992 by Harvard professors Robert Kaplan and David Norton. It is a strategic planning and management tool that is used to link measures and actions to the vision of the organization.

Figure 3: Perspectives of the Balanced Scorecard



The method combines financial and non-financial measures and aims to transfer the view from short-sighted financial management to long-term strategy-based management. It achieves this by including measures from various perspectives. The traditional four perspectives for a Balanced Scorecard include the Financial, Customer, Internal Processes and Learning and Growth Perspective.

The Balanced Scorecard provides feedback on both the internal business processes and the external outcomes in order to continuously improve strategic performance and results.

Benefits of Balanced Scorecard

1. Implements strategy – strategy becomes part of everyday actions and becomes the property of every employee.
2. Communicates Targets – increases efficiency by clarifying targets which can lead to an increased commitment form employees.
3. Target setting is done from every perspective.
4. Identifies business drivers – moves the focus from financial figures to figures that really guide the business.
5. Enables fast reaction to change.
6. Places the entire organisation in a continuous learning process by aligning the strategy in a single framework and improving the measuring process over time.
7. Creates a platform to improve planning. More rational budgeting can take place and future outcomes can be predicted.
8. Improvement is facilitated by the improved visibility of what is going on. The Balanced Scorecard can identify where changes need to be made and it can help to identify best practices.
9. The Balanced Scorecard can provide stakeholders with visibility of the organisation's activities or it can provide feedback for the stakeholders.
10. Enables benchmarking. Benchmarking is the comparison of one organisation's performance and outcomes against those of other organisations in the same market class. Benchmarking is done to identify standards or best practices to apply in measuring and improving the organisation's performance.

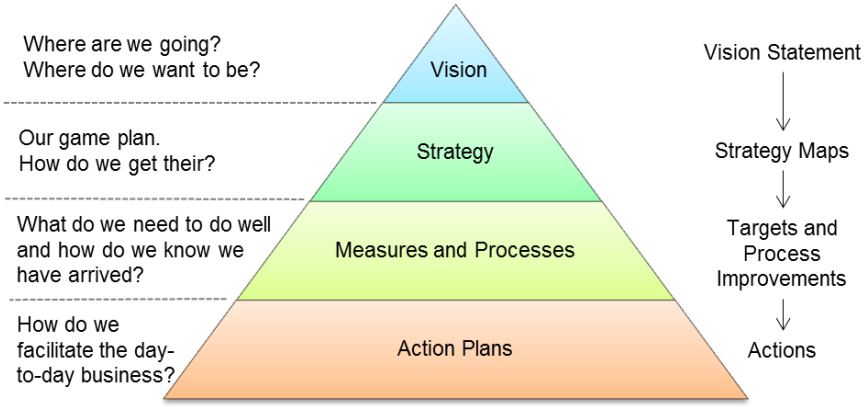
Limitations of Balanced Scorecard

1. Requires high level of organisational commitment. Different areas of the organisation need to be measured and data needs to be collected and managed.
2. The performance measurements can create fear in terms of raised visibility and accountability of the employees' workplace performance.
3. Measurement of the organisation does not solve the problems and must be accompanied by initiatives.
4. Implementation challenges can occur where the mission, vision and strategies are poorly defined or understood and where the strategic goals are not linked to the performance drivers. It can be that the performance targets are set too high or too low.

3.4. How can the Balanced Scorecard be used to manage strategic performance?

The Balanced Scorecard is a strategic planning and management tool that is used to link measures and actions to the vision of the organization.

Figure 4: Linking measures and actions to the vision statement



The biggest challenge in designing the Balanced Scorecard based performance management system is deciding what activities and outcomes to monitor. The strategy map enables the management team to decide what objectives to choose.

Strategy Mapping

A strategy map is used to translate the strategy of the organisation into a diagram to create a visual simplification of the overall strategic plan. The strategy map is used to communicate the strategy of the organisation to the employees, management team and stakeholders.

The following steps can provide guidance to develop a strategy map that will enable the organisation to cover all the necessary aspects *(Armitage, Scholey, p8, 2006)***:**

1. Specify an overriding objective.
2. Choose the value proposition.
3. Choose the financial strategies.
4. Choose the customer strategies.
5. Execute through the internal perspective strategies.
6. Plan the learning and growth strategies.

The steps are explained below to give a better understanding of how these steps are executed.

Step 1: Specify an overriding objective

This step is critical because it links the strategy map to the vision of the organisation. It is important to distinguish between the vision statement and the overriding objective. For a profit organisation the overriding objective must be economic, even though the vision statement is to improve quality. This will ensure that even though the organisation aims to improve quality it will be cautious of the financial implications of the vision and will ensure that the organisation does not go bankrupt in order to achieve its vision. A good the overriding objective must contain a financial target and a time dimension, for example increase profit margin by 5-10% within five years.

Step 2: Choose the Value Proposition

The value proposition states how the organisation fundamentally delivers value to customers. Companies that deliver extraordinary levels of distinctive value to a carefully selected group can reap the rewards offered by market leadership.

To lead the market, companies need to segment the market based on perception of value. Using this information, organisations can choose the value proposition that will help them lead the market.

Tracy and Wiersema concluded that successful organisations compete on one of three clearly defined value propositions:

1. Operational excellence - Delivering a combination of quality and service that no one else can match. This can include providing products at a very low price and creates the image of “Best deal”.
2. Customer intimacy - Building bonds by knowing the customer. By focussing on very high customer intimacy it creates an image of “Best friend”
3. Product Leadership - Creating new products with unique attributes and creating an image of “Best Product / Service”.

The central idea is that successful organisations will excel at one of these three dimensions of value while maintaining threshold standards on the others. Doing so will create an image that will keep customers coming back and help organisations to dominate the market. Although it is not necessary to explicitly show the value proposition on the strategy map it can be good practice to do so. Many organisations believe that the choice of strategies in the different perspectives will be evident.

The Value Proposition is fundamental in constructing the strategy map. Choosing a value proposition helps the organisations to select the most appropriate strategies for the financial, customer, internal business processes and learning and growth perspectives.

Step 3: Choose the Financial Strategies

In profit organisations the financial perspective involves the stakeholders and in non-profit organisations it involves subsidising or financing the organisation. The financial strategies can be categorised into three key areas:

1. Revenue growth
2. Productivity
3. Asset utilisation

An organisation must pay attention to each of these three areas; however, the value proposition dictates which of these areas will dominate and where to spend most of the effort. Table 1 (Armitage, Scholey, p14, 2006) indicates the type of financial focused strategies companies tend to pursue based on the value proposition chosen.

Table 1 : Financial Strategy Chart

Value Proposition / Financial Strategy	Operational Excellence	Customer Intimacy	Product Leadership
Revenue growth	Focus on competitive prices. High Volume.	Group customer revenues.	Premium prices for various packages. Focus on new features.
Productivity	Tight variable and flexible cost control.	Control solution expenditures.	Control but also spend on research, development and marketing.
Asset utilization	Maximize inventory turnover for the company and operate fixed assets to the fullest.	Operate fixed assets as needed in pursuit of customer intimacy.	Operate fixed assets as required in pursuit of product leadership.

Step 4: Choosing the Customer Strategies

The customer perspective is concerned with the selection, acquisition, retention and growth of customers. Having established the financial strategies and organisation must formalise their plans to win the marketplace. Customer strategies can be categorised into three key areas:

1. Retaining and adding customers.
2. Increasing revenue per customer.
3. Reducing cost per customer.

An organisation must pay attention to each of these three areas; however the value proposition once again dictates which of these areas will dominate and where to spend most of the effort. Table 2 (Armitage, Scholey, p17, 2006) indicates the type of customer focused strategies companies tend to pursue based on the value proposition chosen.

Table 2: Customer Strategy Chart

Value Proposition / Customer Strategy	Operational Excellence	Customer Intimacy	Product Leadership
Retaining and adding customers	Focus on competitive prices.	Reliability programs and word-of-mouth advertising.	Make us of latest technologies and introduce new features.
Increasing revenue per customer	Focus on competitive prices.	Group customers in order to focus on solution selling.	New types of add-on products and services.
Reducing cost per customer	Dedicated process and supply chain management systems.	Spending and cost regulative policies as needed in pursuit of customer intimacy.	Spending and cost regulative policies as needed in pursuit of product leadership.

Step 5: Execute through the Internal Perspective Strategies

The Internal Perspective is concerned with choosing and executing the right business processes to achieve the desired financial and customer strategies. These business processes can include internal operations, innovation and customer management.

Table 3 (Armitage, Scholey, p19, 2006) indicates how an organisation could focus its processes given its value proposition.

Table 3: Key Process Chart

Value Proposition / Process to Excel at	Operational Excellence	Product Leadership	Customer Intimacy
Internal operations	The company's primary focus must be to excel.	The company must meet and maintain threshold standards.	The company must meet and maintain threshold standards.
Innovation	The company must meet the lower end of threshold standards.	The company's primary focus must be to excel.	The company must meet and maintain threshold standards.
Customer management	The company must meet and maintain threshold standards.	The company must meet and maintain threshold standards.	The company's primary focus must be to excel.

Step 6: Plan the Learning and Growth Strategies

Having established the financial and customer strategies and developed an execution plan, organisations will notice some gaps in knowledge, skills and abilities necessary to execute the chosen strategy. The learning and growth perspective aims to limit the gap to help organisations to execute their strategy.

The learning and growth strategies can be classified in three key areas:

1. Human capital (application of knowledge, cooperation and involved individuals).
2. Information capital (how well the information systems are utilized).
3. Organization capital (ability to connect employee goals to the organisational goals).

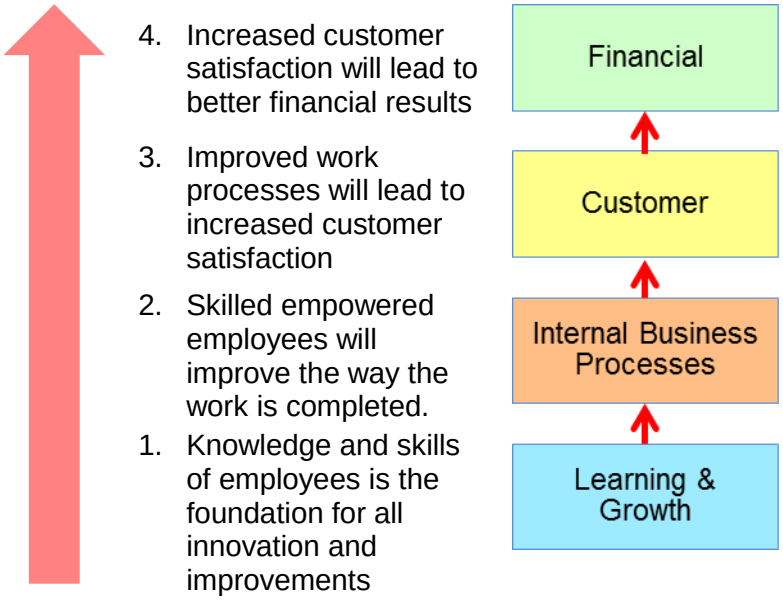
Table 4 (Armitage, Scholey, p22, 2006) summarises the trust of each form of capital for each value proposition:

Table 4: Capital Focus Chart

Value Proposition / Type of Capital	Operational Excellence	Customer Intimacy	Product Leadership
Human	Abide by the status quo while minimising the risk in a short time horizon with little flexibility.	The status quo depends on the customer with calculated risk in a long time horizon with adaptable flexibility.	Challenge the status quo with calculated risk in a longer time horizon with versatile flexibility.
Information	Focus on efficiency in operations.	Focus on customer sales with a rapid response.	Focus on innovation.
Organisational	With efficiency as an outcome in functional processes with low teamwork requirement.	With solutions as an outcome of high concern requiring a lot of teamwork.	With creativity and high concern focused on outcomes, it requires a lot of teamwork.

Cause and Effect

Figure 5: Example of a Cause and Effect relationship



There is a clear relationship between the different perspectives. Improving one objective in the learning and growth perspective can lead to the improvement of the internal business perspectives and that can lead to an improvement of the customer or financial perspectives.

On the strategy map cause and effects relationships are defined by using causal arrows to connect the objectives in the different perspectives.

3.5. Measures

A measure is a number or quantity that records a directly observable value or performance. Measures can also be referred to as key performance indicators (KPIs) in the lower levels of an organisation. The value of measurements is that it identifies where action should be taken.

A measure is specific, it has to be directly related to the element being measured. It may seem obvious, but it is important to keep in mind that the measure must be measurable. Management must agree on all of the measures used, as this ensures that a general understanding and the aim of each measure is clearly defined and broadly accepted. The measures used should be realistic. Meaning the measures should be set up as to be accomplishable and to be improved upon in a realistic time frame. It is important that all of the measures be time-bound or defined within a specific time frame.

Measure guidelines

Measuring guidelines are a guide for the management team to help the team identify which measures are applicable to which strategic objective. The following guidelines can be used when choosing measures:

1. Test for link to strategy – a measure has to help the organisation achieve its objectives.
2. Measures can be tangible or intangible - A tangible measure is a measure that can be converted into money and are easily captured, like sales growth. Intangible measures cannot realistically be converted into financial value with limited resources and are very difficult to capture, like customer service. Intangible measures are often linked to tangible measures, for example when customer service increase, sales growth will increase as well.

3. A measure can be either a lag or a lead indicator.

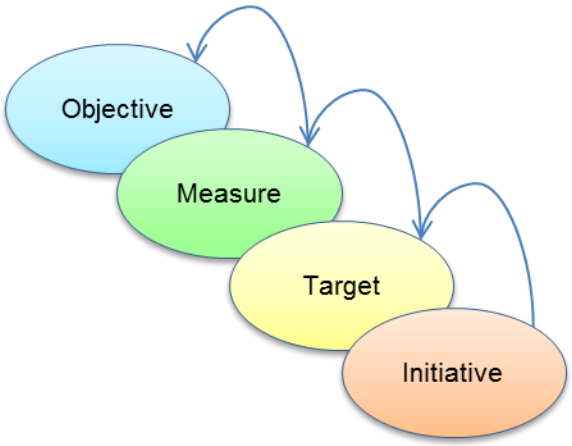
Table 5: Lagging and Leading measures

	Lagging measures	Leading measures
Purpose	Outcome or result focused. Reflects success of past or implemented activities.	Measure intermediate processes and activities. Measure hypotheses and cause and effect.
Strengths and difficulties	Usually objective, but difficult to identify true outcome measures and it can be difficult to capture data.	More predictive allowing for behavioural adjustment to improve performance.
Risk and return	Low risk, low benefit.	High risk, high benefit.
Example	Year-end budget Expense. Customer satisfaction.	Amount spent on automation. Hours spent with customers.

Creating a Measurement Structure

As stated, measures are linked to objectives. The measures are used to measure and track the performance of the objectives. In order to make the Balanced Scorecard system measurable, performance expectations in terms of a target for each measure should be set and the organisation needs to implement initiatives to achieve these expectations. Initiatives are key actions, required programs and operational budget assignments that are required to achieve the objectives.

Figure 6: Linking measures and initiatives to objectives



For example to improve customer satisfaction, measure customer retention. Then set the target to retain 95% of customers. Set initiatives on how to achieve this target. To retain 95% of the customers you can implement loyalty rewards like a Frequent Buyers Club.

3.6. Case Study

A case study was presented by Dennis Coetzee, group manager of Human Resources NWK (North West Corporation) that focusses on how the organisation implemented an automated performance management solution and how the solution improved the overall management to ensure that the objectives of the organisation is reached. NWK used the QPR Metrics software to automate their scorecards and other performance management approaches.

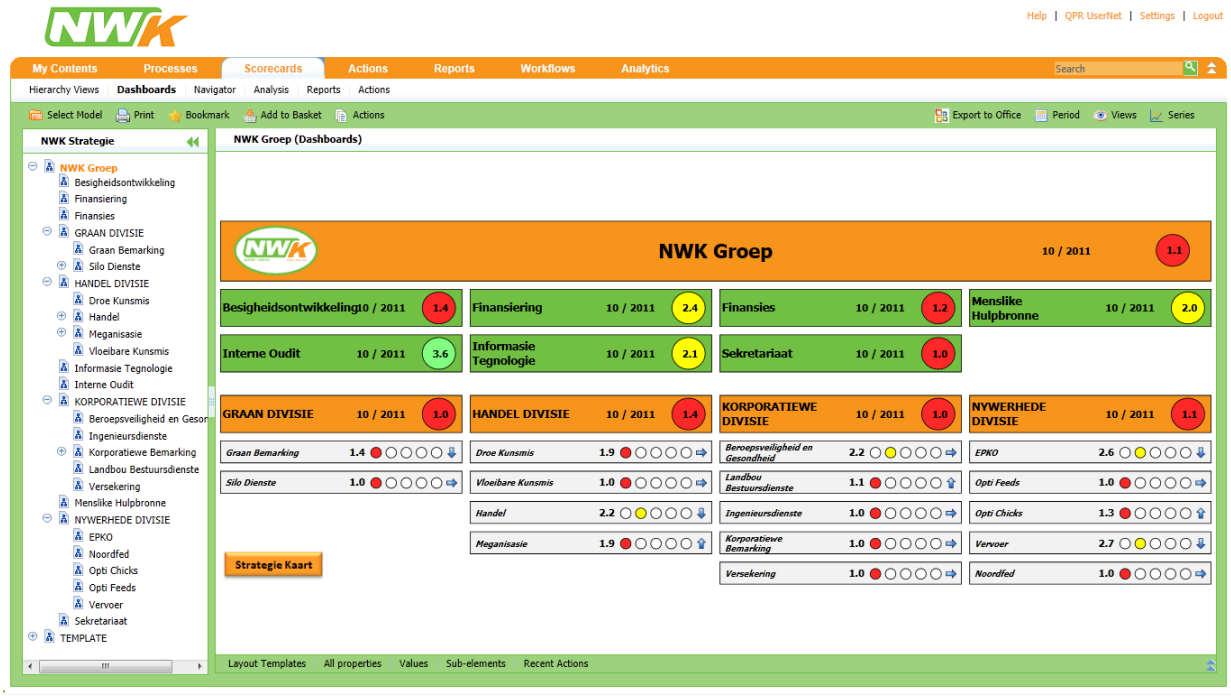
QPR Metrics is Performance Management Software that provides an organization with a fast, flexible, web-based performance management solution. The QPR Metrics is capable of supporting multiple management standards, methodologies and initiatives and turns a lengthy resource-intensive performance reporting cycles into an effective real-time performance management program.

QPR Metrics enhances rich data collection, consolidation, presentation and monitoring features with powerful, online collaboration capabilities. This enables users to add contextual information such as comments and explanations to give managers more than just the numbers to base decisions on. Managers can ensure decisions will be turned into action by assigning tasks and monitoring follow-up.

NWK is a specialist provider of services and products to the agricultural sector. They offer a range of products from financial products, production, retail shops, transport and the supply and service of farming equipment. For the last couple of years, NWK has gone through a big culture change. As part of this change, they wanted to focus more on performance management. This not only meant measuring the performance of their people, but also measuring the performance of the group as well as their business units. NWK did not only use QPR to automate their balance scorecards, but they used it to

automate the 20 Keys operational excellence model. NWK is currently using QPR to provide a single source of information for their job descriptions, competency matrix, people performance management and talent tracking. The simplicity of implementation that QPR offers, allowed the company to build more than 3500 scorecards in a couple of months. QPR provides managers with easily understandable dashboards and strategy maps to manage their short term goals as well as risks associated with the business. The company's people performance management is now available in a single system across the organisation. QPR also assisted to align the staff to the goals set by senior management. A change of mind set regarding measurement was recognised in the staff and helps them focus to reach their targets. According to Mr Coetzee, QPR is a cost effective tool for automation of scorecards and processes.

Figure 7: NWK's Balanced Scorecard automated with QPR Metrics Software

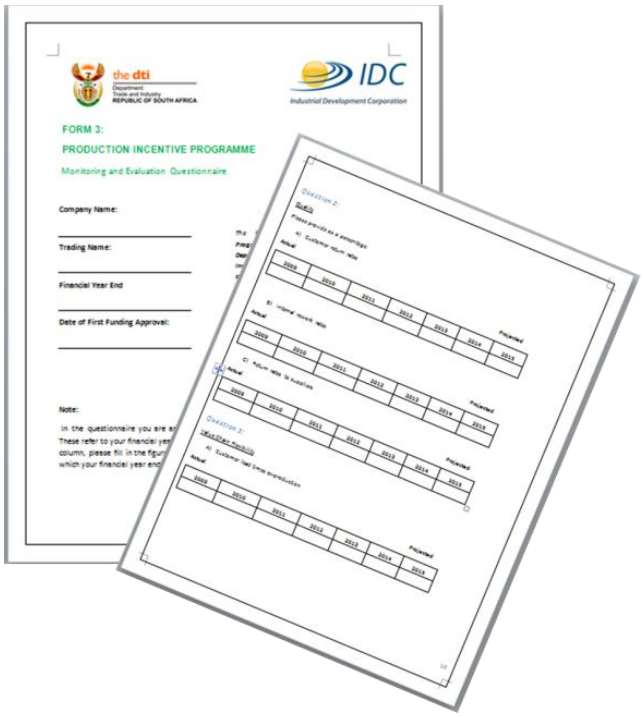


4. PROBLEM INVESTIGATION

4.1. The current IDC Performance Questionnaire

The IDC have started to implement performance management. It entails managers of the client companies to fill in a monitoring and evaluation questionnaire at the end of every year. The purpose of the questionnaire is to collect data so that the impact of the companies' grant can be assessed. It also provides the IDC with the necessary information to make changes to their programme and to improve its effectiveness. An example in the form of a page of the IDC's monitoring and evaluation questionnaire is provided in figure 8, while a more detailed example is given in Appendix F.

Figure 8: IDC's Monitoring and Evaluation Questionnaire



Problems and limitations identified:

1. Performance is only measured once a year. Performance needs to be measured constantly in order to provide the management with an idea of the how the different areas within the organisation is performing and if the strategic objectives are achieved.
2. Although some objectives for the financial, customer, internal processes and learning and growth perspectives are specified there is no clear structure to the system and it is not specified how these objectives can contribute towards the performance of the organisation. A strategy map will be useful to provide a structure for these objectives.

3. There is no clear indication of the performance. The performance cannot be calculated because the targets are not specified.
4. There are final indicators to illustrate if the actual results achieved are exceeding or not up to the required standard. Further analysis has to be done on the data before it can be useful for performance management.

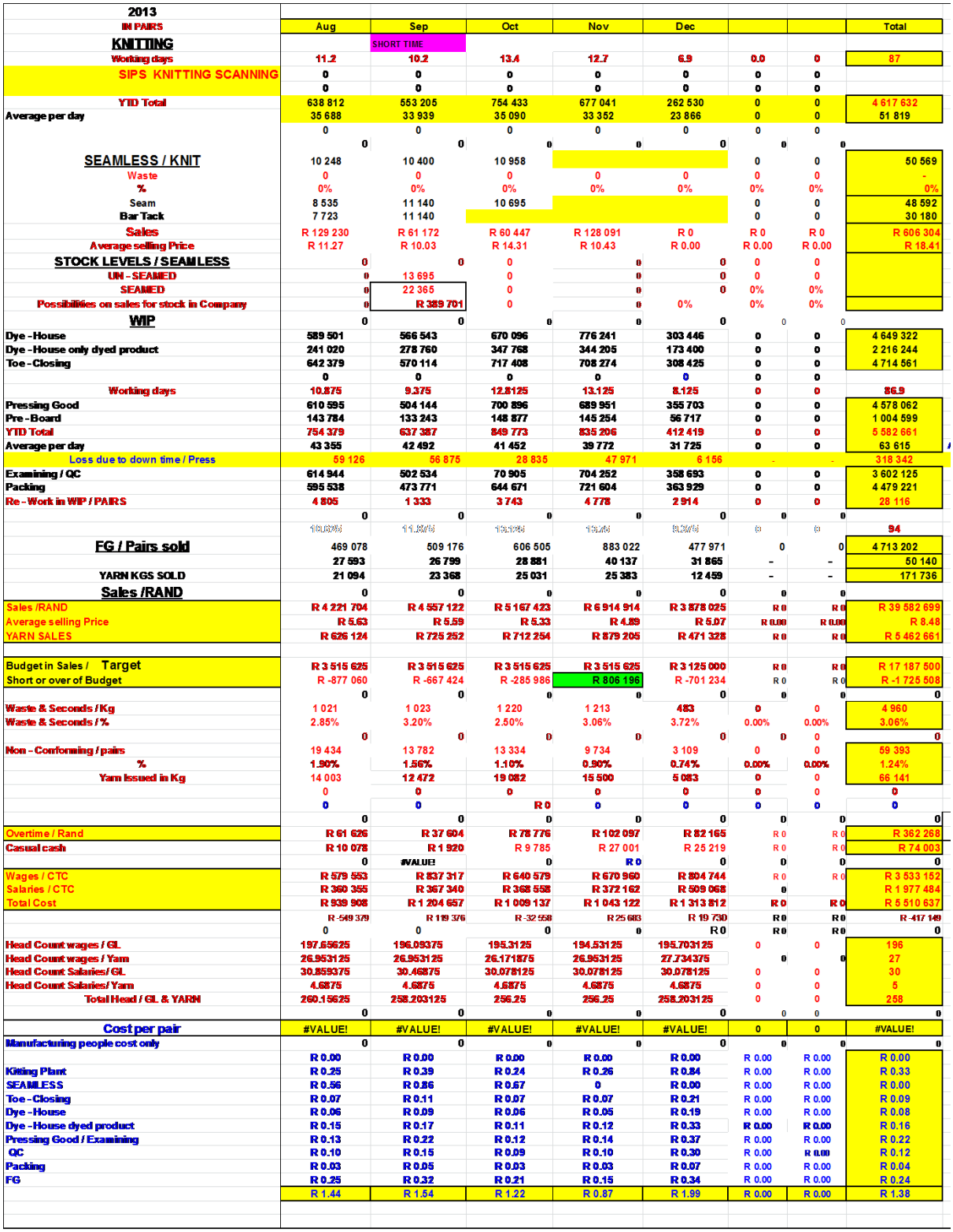
4.2. Glencarol's current Performance Management System

Glencarol is also focusing on performance and has introduced a system that focuses mainly on financial performance as seen in figure 9. The main problem with the system is that it does not comply with the IDC's performance requirements. A manager will not be able to complete the IDC's monitoring and evaluation questionnaire completely when using the system alone. Additional information has to be collected in order to report the organisation's performance to the IDC.

Other problems and limitations identified:

1. The system does not clearly state the vision of the company.
2. The data can be very confusing to someone who is not familiar with the system. There is no clear structure that organises the data.
3. The system does not follow a balanced approach. Only the performance of production and other financial measures, like sales and overhead costs are addressed.
4. The system allows the manager to compare this year's results against last year's results. It does not allow for historical data.
5. The system does not notify the managers when the organisation is performing. The managers have to manually check whether the actual is exceeding the target to know if the organisation is performing.

Figure 9: Extract from Glencarol's Performance Management System

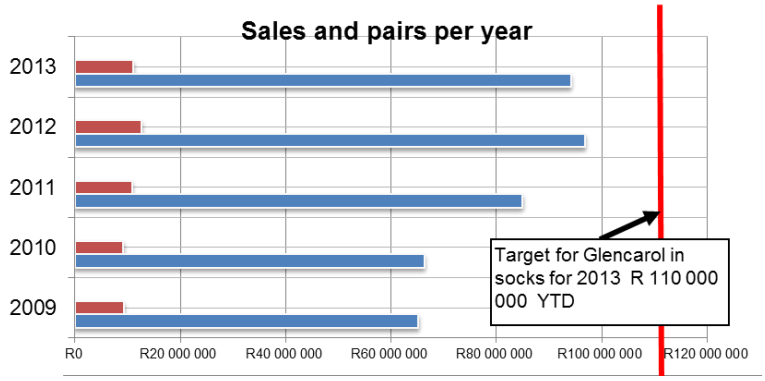


2013								
IN PAIRS	Aug	Sep	Oct	Nov	Dec			Total
KNITTING		SHORT TIME						
Working days	11.2	10.2	13.4	12.7	6.9	0.0	0	87
SIPS KNITTING SCANNING	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	
YTD Total	638 812	553 205	754 433	677 041	262 530	0	0	4 617 632
Average per day	35 688	33 939	35 090	33 352	23 866	0	0	51 819
	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	
SEAMLESS / KNIT	10 248	10 400	10 958			0	0	50 569
Waste	0	0	0	0	0	0	0	-
%	0%	0%	0%	0%	0%	0%	0%	0%
Seam	8 535	11 140	10 695			0	0	48 592
Bar Tack	7 723	11 140				0	0	30 180
Sales	R 129 230	R 61 172	R 60 447	R 128 091	R 0	R 0	R 0	R 606 304
Average selling Price	R 11.27	R 10.03	R 14.31	R 10.43	R 0.00	R 0.00	R 0.00	R 18.41
STOCK LEVELS / SEAMLESS	0	0	0	0	0	0	0	
UN - SEAMED	0	13 695	0	0	0	0	0	
SEAMED	0	22 365	0	0	0	0%	0%	
Possibilities on sales for stock in Company	0	R 389 701	0	0	0%	0%	0%	
WIP	0	0	0	0	0	0	0	
Dye - House	589 501	566 543	670 096	776 241	303 446	0	0	4 649 322
Dye - House only dyed product	241 020	278 760	347 768	344 205	173 400	0	0	2 216 244
Toe - Closing	642 379	570 114	717 408	708 274	308 425	0	0	4 714 561
	0	0	0	0	0	0	0	
Working days	10.875	9.375	12.8125	13.125	8.125	0	0	86.9
Pressing Good	610 595	504 144	700 896	689 951	355 703	0	0	4 578 062
Pre - Board	143 784	133 243	148 877	145 254	56 717	0	0	1 004 599
YTD Total	754 379	637 387	849 773	835 206	412 419	0	0	5 582 661
Average per day	43 355	42 492	41 452	39 772	31 725	0	0	63 615
Loss due to down time / Press	59 126	56 875	28 835	47 971	6 156	-	-	318 342
Examining / QC	614 944	502 534	70 905	704 252	358 693	0	0	3 602 125
Packing	595 538	473 771	644 671	721 604	363 929	0	0	4 479 221
Re - Work in WIP / PAIRS	4 805	1 333	3 743	4 778	2 914	0	0	28 116
	0	0	0	0	0	0	0	
	10.63%	11.87%	13.12%	13.4%	8.37%	0	0	94
FG / Pairs sold	469 078	509 176	606 505	883 022	477 971	0	0	4 713 202
	27 593	26 799	28 881	40 137	31 865	-	-	50 140
YARN KGS SOLD	21 094	23 368	25 031	25 383	12 459	-	-	171 736
Sales /RAND	0	0	0	0	0	0	0	
Sales /RAND	R 4 221 704	R 4 557 122	R 5 167 423	R 6 914 914	R 3 578 025	R 0	R 0	R 39 582 699
Average selling Price	R 5.63	R 5.59	R 5.33	R 4.89	R 5.07	R 0.00	R 0.00	R 8.48
YARN SALES	R 626 124	R 725 252	R 712 254	R 879 205	R 471 328	R 0	R 0	R 5 462 661
Budget in Sales / Target	R 3 515 625	R 3 515 625	R 3 515 625	R 3 515 625	R 3 125 000	R 0	R 0	R 17 187 500
Short or over of Budget	R -877 060	R -667 424	R -285 986	R 806 196	R -701 234	R 0	R 0	R -1 725 508
	0	0	0	0	0	0	0	0
Waste & Seconds / Kg	1 021	1 023	1 220	1 213	483	0	0	4 960
Waste & Seconds / %	2.85%	3.20%	2.50%	3.06%	3.72%	0.00%	0.00%	3.06%
	0	0	0	0	0	0	0	0
Non - Conforming / pairs	19 434	13 782	13 334	9 734	3 109	0	0	59 393
%	1.90%	1.56%	1.10%	0.90%	0.74%	0.00%	0.00%	1.24%
Yarn Issued in Kg	14 003	12 472	19 082	15 500	5 083	0	0	66 141
	0	0	0	0	0	0	0	0
	0	0	R 0	0	0	0	0	0
	0	0	0	0	0	0	0	0
Overtime / Rand	R 61 626	R 37 604	R 78 776	R 102 097	R 82 165	R 0	R 0	R 362 268
Casual cash	R 10 078	R 1 920	R 9 785	R 27 001	R 25 219	R 0	R 0	R 74 003
	0	#VALUE!	0	R 0	0	0	0	0
Wages / CTC	R 579 553	R 837 317	R 640 579	R 670 960	R 804 744	R 0	R 0	R 3 533 152
Salaries / CTC	R 360 355	R 367 340	R 368 558	R 372 162	R 509 068	0		R 1 977 484
Total Cost	R 939 908	R 1 204 657	R 1 009 137	R 1 043 122	R 1 313 812	R 0	R 0	R 5 510 637
	R -549 379	R 119 376	R -32 558	R 25 683	R 19 730	R 0	R 0	R -417 149
	0	0	0	0	R 0	R 0	R 0	0
Head Count wages / GL	197.65625	196.09375	195.3125	194.53125	195.703125	0	0	196
Head Count wages / Yarn	26.953125	26.953125	26.171875	26.953125	27.734375		0	27
Head Count Salaries/ GL	30.859375	30.46875	30.078125	30.078125	30.078125	0	0	30
Head Count Salaries/ Yarn	4.6875	4.6875	4.6875	4.6875	4.6875	0	0	5
Total Head / GL & YARN	260.15625	258.203125	256.25	256.25	258.203125	0	0	258
	0	0	0	0	0	0	0	0
Cost per pair	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	0	#VALUE!
Manufacturing people cost only	0	0	0	0	0	0	0	0
	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00
Kitting Plant	R 0.25	R 0.39	R 0.24	R 0.26	R 0.84	R 0.00	R 0.00	R 0.33
SEAMLESS	R 0.56	R 0.86	R 0.67	0	R 0.00	R 0.00	R 0.00	R 0.00
Toe - Closing	R 0.07	R 0.11	R 0.07	R 0.07	R 0.21	R 0.00	R 0.00	R 0.09
Dye - House	R 0.06	R 0.09	R 0.06	R 0.05	R 0.19	R 0.00	R 0.00	R 0.08
Dye - House dyed product	R 0.15	R 0.17	R 0.11	R 0.12	R 0.33	R 0.00	R 0.00	R 0.16
Pressing Good / Examining	R 0.13	R 0.22	R 0.12	R 0.14	R 0.37	R 0.00	R 0.00	R 0.22
QC	R 0.10	R 0.15	R 0.09	R 0.10	R 0.30	R 0.00	R 0.00	R 0.12
Packing	R 0.03	R 0.05	R 0.03	R 0.03	R 0.07	R 0.00	R 0.00	R 0.04
FG	R 0.25	R 0.32	R 0.21	R 0.15	R 0.34	R 0.00	R 0.00	R 0.24
	R 1.44	R 1.54	R 1.22	R 0.87	R 1.99	R 0.00	R 0.00	R 1.38

Values do not reflect the true results of the company as it was adjusted for confidentiality reasons.

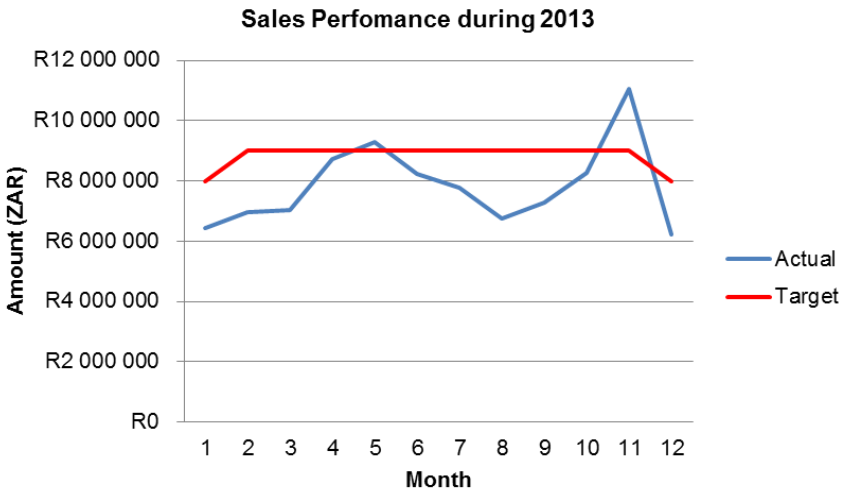
6. There are only target values stated for the sales measure. Considering that the company only set sales targets in its performance system, it is very difficult to analyse the performance of the data. After doing some analysis on the sales performance of the company, it is clear that the company fails consistently to meet the annual sales target. This can be because of problems within the process or it can be because the target value is calculated incorrectly and is set too high. It will be good practice to re-evaluate the target values.

Figure 10: Yearly analysis of actual against target for sales



A monthly analysis of the sales was completed for 2013. Figure 11 shows that in most months the outcomes do not meet the required performance. In month 5 and 11 the actual does exceed the target but not enough to increase the annual performance of sales to where the process is performing. It will be good practice to re-evaluate the target values.

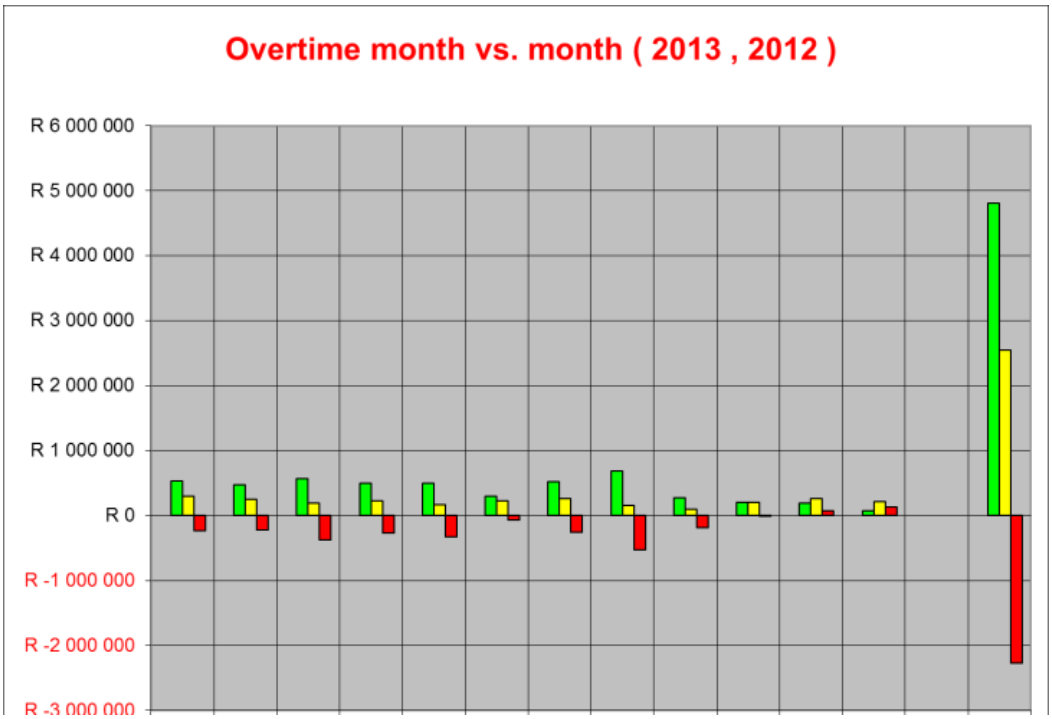
Figure 11: Monthly analysis of actual against target of sales



The figure also shows a seasonality trait for sales. This will be logical since socks are purchased more during some seasons of the year. Targets can be recalculated using seasonality forecasting. This assumption may be incorrect since there is not historical evidence available in the model to test the assumption. It will be good practice to calculate sales targets with forecasting techniques in the future as this may help the company to manage its production

7. Glencarol measures the overtime that the employees work. As shown in figure 12 the overtime is measured by comparing the overtime of month 1 of year 1 with the overtime of month 1 of year 2, while the annual results of the two years are also compared. This may be an incorrect measurement since there might have been an extraordinary event that will make the month-to-month comparison irrelevant. It is better practice to set a target for each month and strive to achieve the target. In this case it will be a minimizing target.

Figure 12: Glencarol Overtime analysis



5. CONCEPTUAL DESIGN AND DESIGN SPECIFICATIONS

The solution concept is to develop a system for the client companies that can adhere to the IDC's performance objectives. The solution design starts with the creation of the strategy map and identifying the measures that will be used to achieve the strategic objectives identified in the strategy map. A model should then be developed to capture the data that will be used to manage the performance of these objectives.

5.1. Designing the strategy map and identifying KPIs (measures)

The first step to create the solution is to identify the strategic objectives and to draw the strategy map. The IDC's monitoring and evaluation questionnaire identifies some important performance objectives and key performance indicators (measures) that needs to be achieved by all grant recipient (client) companies. These objectives and measures were rearranged according to the Balanced Scorecard Methodology and include:

Table 6: Standard Objectives and Measures required by the IDC

Perspective	Objective	KPI (measurement unit)
Financial	Improve Sales	Sales of manufactured goods (ZAR)
		Sales of other goods (ZAR)
	Reduce Production costs	Cost of raw materials used (ZAR)
		Cost of labour (ZAR)
Customer	Reduce customer return rates	Customer return rates (%)
	Improve time to customer	Customer lead-times (working days)
Internal Processes	Improve production outputs	Measure as applicable to company
	Improve Quality	Internal rework rate (%)
		Return rates of suppliers (%)
	Improve value chain flexibility	Manufacturing throughput times (working days)
		Lost production time due to change over (working days)
	Improve value chain reliability	On time and in full delivery to customers (%)
		Downtime due to machine breakdowns (working days)
		Downtime due to materials and people unavailable (working days)
Learning & Growth	Improve skills	Total Training spend (ZAR)
	Improve company culture	Absenteeism rates (%)
		Labour turnover rates (%)

These objectives should be standard in the strategy map for all of the clients, but the targets for these measures have to be adjusted to each company's abilities. Each company should also include additional objectives and KPIs to help the company reach its overriding objective and the objectives set by the IDC. Some KPIs that the client companies may find useful include:

Table 7: Key Performance indicators applicable for the textile manufacturing industry

Perspective	KPI (measurement unit)	Description
Financial	Gross Margin as a % of selling price (%)	Gross Margin is profit expressed as a percentage of the Selling Price
	Average production cost of item (ZAR)	Average production costs of items produced within measurement period.
Customer	Percentage of returning customers (%)	Percentage of returning customers within measurement period
	Average order size (ZAR)	The average amount spent by a customer per order. Many companies have goals of increasing average order size through marketing.
Internal Processes	Inventory Turns (number)	Frequency that the average inventory is re-sold in a predetermined period of time
	Size of safety stock (number)	Safety stock describes the level of stock that is maintained below the cycle stock to buffer against stock-outs to counter uncertainty in supply and demand.
	Average age of inventory (number)	The (average) age of each product in stock. For example, product received in Jan, but remains until Aug.
	Customer order cycle time	The average time it takes to fill a customer order.
	Percentage of backorders (%)	Percentage of unfulfilled orders.
Learning & Growth	Development plan completion (%)	Measures the percentage of employees completing a course or a content area of training that is part of his/her development plan.
	Job satisfaction (%)	Job satisfaction score of employees measured by surveys.
	New products introduced per year as a % of all products	Ratio of new products introduced at shopping centre to full company catalogue per year

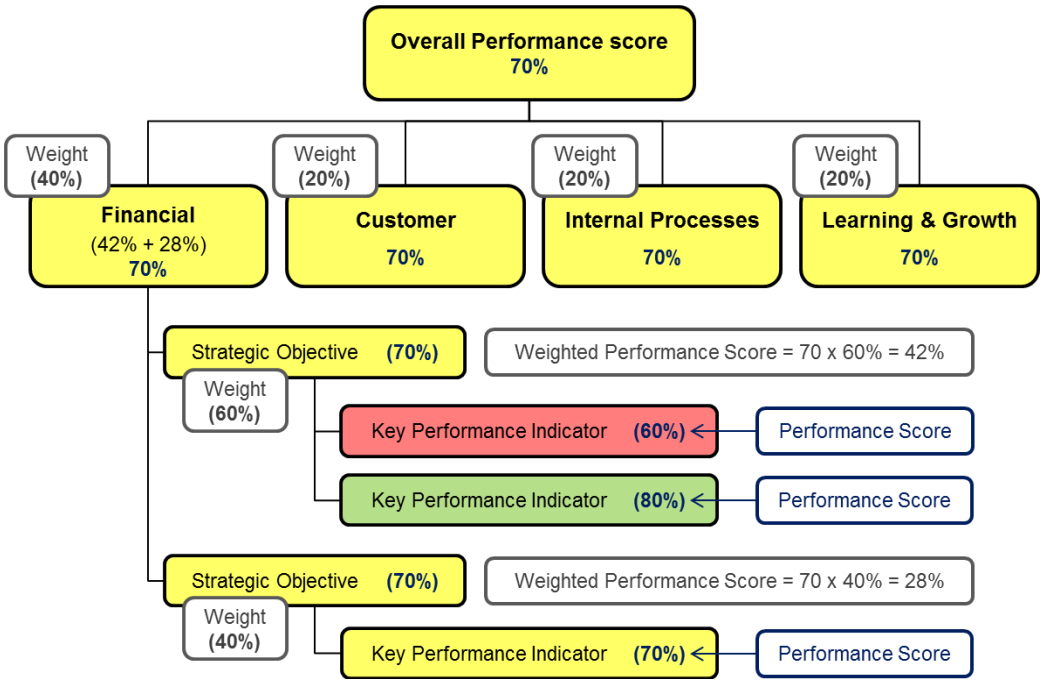
These are only examples and the objectives and applicable KPIs can be chosen and modified to fit the needs on a specific company.

5.2. Setting targets

Targets are set by either analysing data if data is available or if no data is available using managerial experience and in-depth knowledge of the company. It is very important to calculate or set the targets correctly as a too low target might not be competitive enough and will not show the true performance of the company, while a too high target might not be realistic or achievable and can induce negativity. It is advisable to adjust the targets based on previous data. This can be to adjust standards or to make the targets more realistic.

5.3. Calculating the performance score, determining trends and designing indicators

Figure 13: Performance Score and Indicators of the System



Assigning Weights

Assigning weights are essential to determine the overall balance of the scorecard. If the scorecard is 100% balanced all the strategic objectives will contribute equally to the perspectives and the perspectives will contribute the same percentage towards the overall performance score. For some companies, one objective or perspective might be much more important than the another objective or perspective. These areas will have a higher weight and will contribute a larger percentage towards the performance score.

Calculating the performance score

For each KPI the performance is calculated by the actual achieved devided by the expected target.

$$Performance\ (KPI) = \frac{Actual}{Target} \times 100$$

The performance scores for the strategic objectives is calculated by taking the average of the performance scores of all the KPI that is linked to the objective.

$$Performance\ (strategic\ objective) = Average(Performance(KPI))$$

The performance score for the perspectives are calculated by adding the weighted performance scores for all the strategic objectives that is linked to the perspective. The weighted performance score (WPS) is calculated by multiplying the performance score with the weight assigned.

$$WPS(strategic\ objective) = Performance\ (strategic\ objective) * Weight$$

$$Performance\ (perspective) = \sum WPS(strategic\ objective)$$

The overall performance score is calculated in a similar way as for the perspectives, only the perspectives are used rather than the strategic objectives.

$$WPS(perspective) = Performance\ (perspective) * Weight$$

$$Overall\ Performance\ score = \sum WPS(perspective)$$

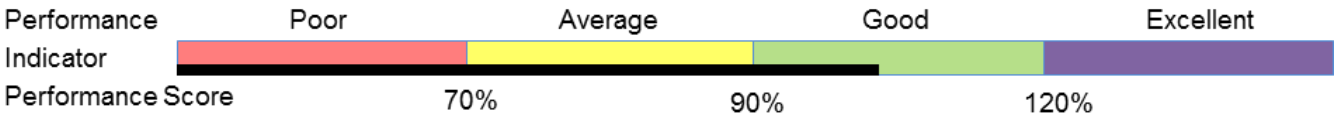
Determining Trends

Trends are very useful to indicate if the performance is improving, declining or constant. Trends are calculated by comparing the performance of the current period to the performance of the last period and are indicated with an arrow (↑-improving, ↓-declining, →-constrant). This will help managers to know where the performance is declining to be able to take action before the performance becomes poor. It will also allow managers to see if their initiatives constitutes an upward trend.

Designing Indicators

Most people respond better to colours and pictures rather than a list of numbers. A list of numbers can be intimidating and confusing. The aim of the indicators is to create a more user friendly interface for the user to be able to identify the performance of the different areas faster. The indicators will be triggered by the performance score based on a specified range. The range can be customised based on the prefferences of the company. An example of ranges are given in figure 14, which indicates that with a performance score of between 90 and 120% the indicator will switch to green, which will imply that the company has a good performance.

Figure 14: Performance Range



5.4. Designing the model

The IDC wants a web-based performance management solution where they can keep track of the performance of the grant-recipient (client-companies). Unfortunately there is a cost involved in all web-based solution software. If the IDC does not want to invest in the web-based software, a cost-free alternative is available to implement.

The model will be designed on two software packages:

- QPR metrics modelling and
- A cost-free alternative in Microsoft Excel

QPR Metrics software is performance management software that provides an organisation with a fast, flexible, web-based performance management solution. The QPR software will be costly to implement but offers a lot of additional features that MS Excel doesn't offer. The main advantage being that the web-based feature will allow the IDC to see the performance of any client at any given time. With MS Excel there would be no additional cost to the company, as the company already owns MS Excel software. Every company needs to submit their MS Excel document separately within a given time which can create an administrative nightmare.

Both models will be designed by using the strategy map as the user interface with indicators to show whether the strategic objectives are achieved or not. Allow navigation to the key performance indicators to see where the problem areas lie and where improvements can be made.

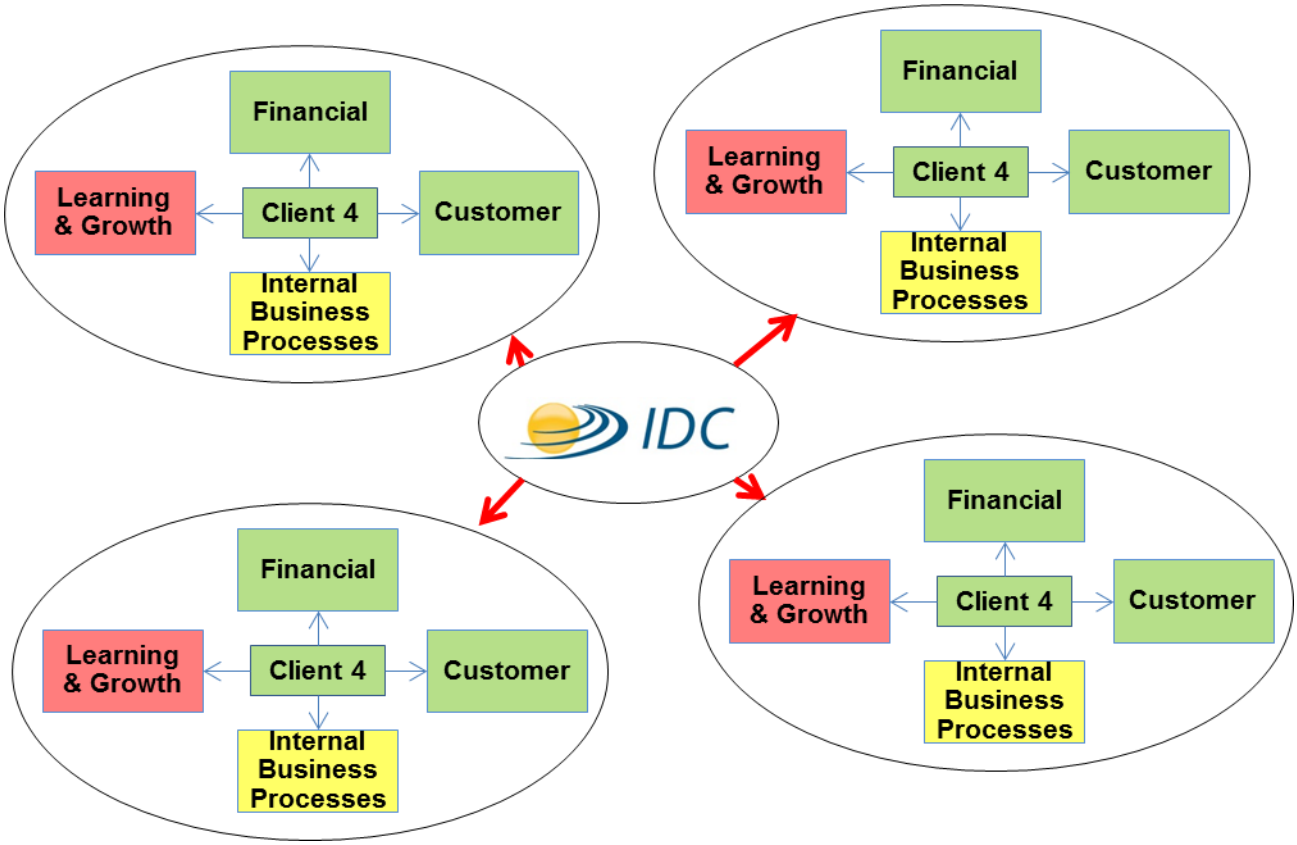
A standardised interface for each KPI will be designed. The interface will include the following information:

1. Measurement unit (e.g. R, %, cm).
2. Frequency of measurement (e.g. weekly, monthly, quarterly, yearly).
3. The initiatives that is required to achieve the objective.
4. Person responsible for the measure.
5. An area to manually enter the target value and actual results.
6. Clearly show the current result on an indicator (colour or gauge).
7. The data will be demonstrated graphically. The actual and target will be displayed to show the trend over a few periods. A cumulative graph will be created if applicable.

5.5. Expanding the model

The IDC is successful when their clients are successful. By expanding the model to their other clients in the textile industry the IDC will be able to see which areas in the company are performing and which areas require intervention. The IDC will then be able to send out specialist or action plans in order to help these companies succeed.

Figure 15: Expanding the Performance Model



For example as seen in figure 15 the IDC can send out financial specialists to clients 1 and 3. The IDC can see why some perspectives are only showing an average performance as illustrated with client 3 and the IDC can send out action plans or specialists if they perceive that this client will fail to increase or to maintain its performance. The IDC can send out a person that specialises in training that will help the employees to develop skills to client 4. This model will be useful to help the IDC to learn from clients that are performing well, as illustrated with client 2, and the IDC can use the successful methods to improve other clients' performance.

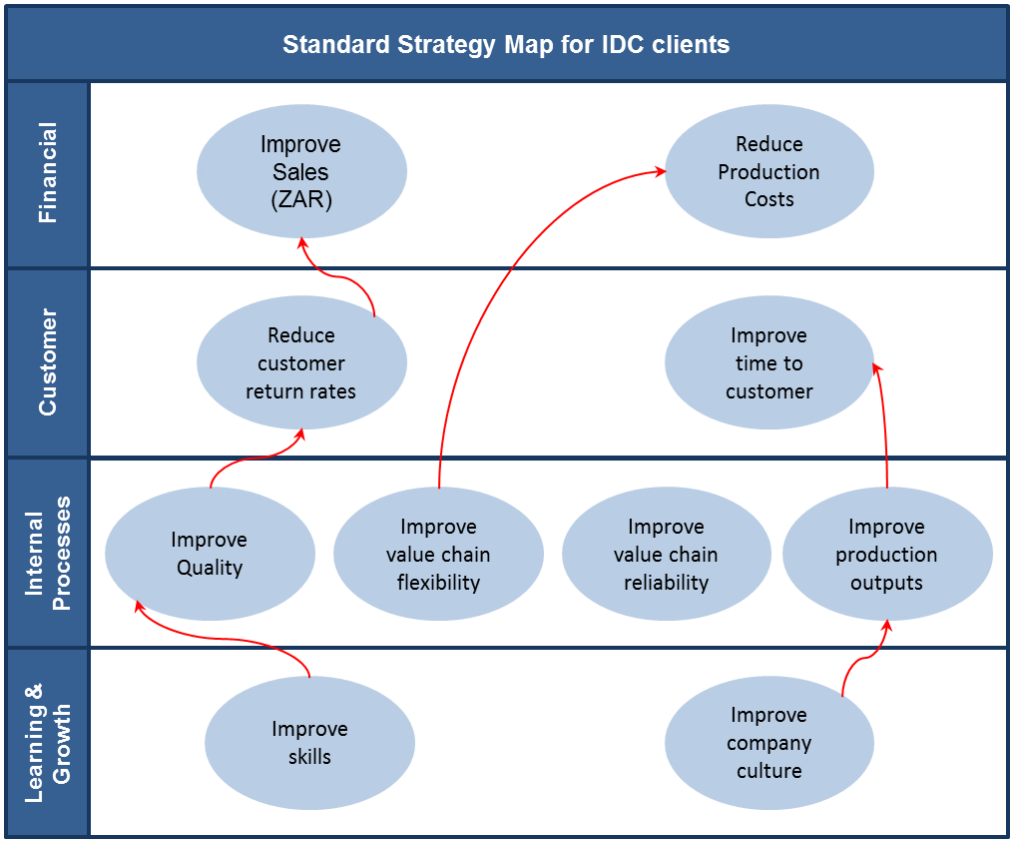
6. SOLUTION

The Balanced Scorecard methodology was used to create both solutions. The two solutions are designed according to the same solution design principles while using different software platforms, which cause a lot of the characteristics of the solutions to overlap. Both solutions are based upon the same strategy map.

6.1. Strategy Map

The standard strategy map was developed based on the strategic objectives required from the IDC. The Strategy map can be adjusted to include other objectives identified by the company that will help the company to reach their vision and still adhere to the performance requirements set by the IDC.

Figure 16: Standard Strategy Map for IDC clients



Cause and effect

1. The effect that skills training of the employees will have on processes and or production is that it will improve the quality of the product outputs. Improved quality will in return reduce the customer return rates, because better products will ensure an increase in customer satisfaction. The customer retention rate and word-of-mouth advertising usually increases when customers are satisfied and this leads to an increase in sales.

2. Improved value chain flexibility will have a direct influence on a reduction in production costs, because it strives to minimise losses due to change overs and to maximise manufacturing throughput.
3. An improved company culture implies that employees are satisfied with the conditions of their work. This can lead to an improvement in production outputs. The faster the products are produced the faster it will be delivered to the customer.

6.2. Solution Alternatives

6.2.1. Solution 1: MS Excel Model

The Microsoft Excel Model is a cost-free alternative due to the software being available on Glencarol's operating systems. The model does not have internet capabilities and needs to be transferred to the IDC via email at the end of each month or as requested.

The model is structure according to the Balance Scorecard specifications and can assists management to achieve the strategic objectives of the organisation. It will simplify the process of completing the IDC's monitoring and evaluation questionnaire.

The model opens with the overview where the manager can see the overall strategic performance of the company (As seen in figure 18). The colour coded performance scores grants the manager instant visibility of where the company is performing and where the company needs improvement. The performance range can be customised by selecting "Change Performance Range" button on the overview page. A dialog box will appear that allows the user to insert the range values that will trigger the colours. Performance above the "Excellent" range will be represented in a purple colour. This will automatically update the colours throughout the entire model. Performance between the "Excellent" and "Good" ranges will appear green, performances between the "Good" and "Average" range will appear yellow while anything below the "Average" range will be presented in a red colour and represents poor performance.

Figure 17: Change Performance Range Dialog

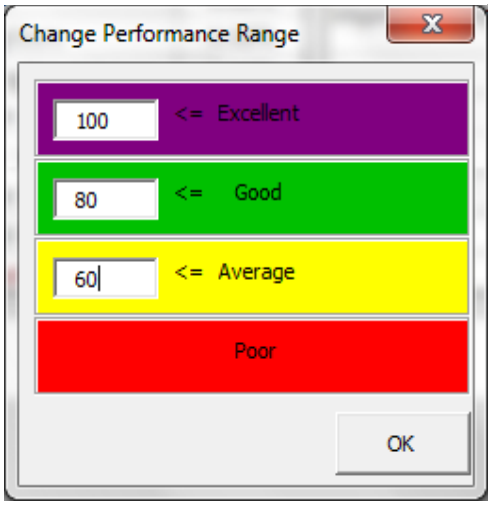
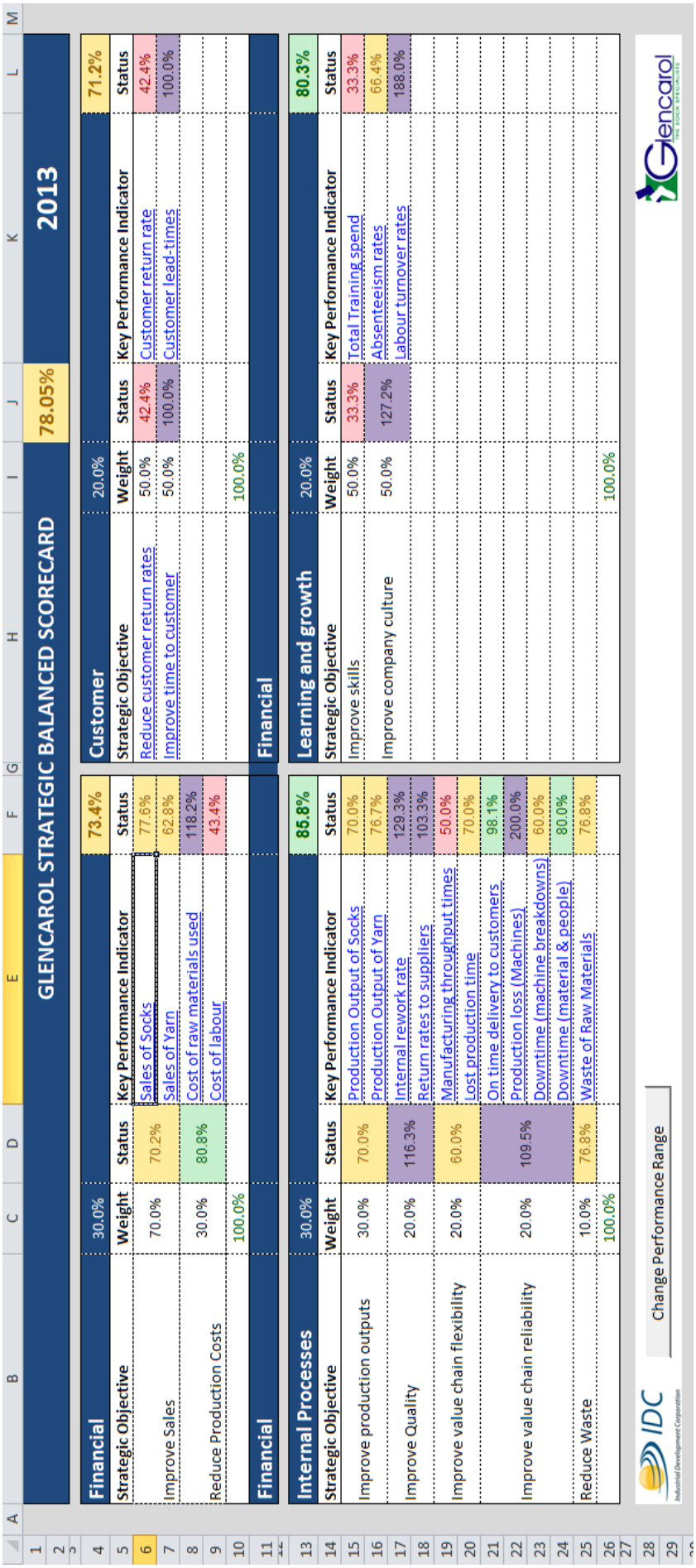


Figure 18: Overview of Glencarol's Balanced Scorecard for 2013



GLENCAROL STRATEGIC BALANCED SCORECARD — 2013

Financial	30.0%		73.4%
Strategic Objective	Weight	Key Performance Indicator	Status
Improve Sales	70.0%	Sales of Socks	77.6%
		Sales of Yarn	62.8%
Reduce Production Costs	30.0%	Cost of raw materials used	118.2%
		Cost of labour	43.4%
	100.0%		
Financial			

Customer	20.0%		71.2%
Strategic Objective	Weight	Key Performance Indicator	Status
Reduce customer return rates	50.0%	Customer return rate	42.4%
Improve time to customer	50.0%	Customer lead-times	100.0%
	100.0%		
Financial			

Internal Processes	30.0%		85.8%
Strategic Objective	Weight	Key Performance Indicator	Status
Improve production outputs	30.0%	Production Output of Socks	70.0%
		Production Output of Yarn	76.7%
Improve Quality	20.0%	Internal rework rate	129.3%
		Return rates to suppliers	103.3%
Improve value chain flexibility	20.0%	Manufacturing throughput times	50.0%
		Lost production time	70.0%
Improve value chain reliability	20.0%	On time delivery to customers	98.1%
		Production loss (Machines)	200.0%
		Downtime (machine breakdowns)	60.0%
		Downtime (material & people)	80.0%
Reduce Waste	10.0%	Waste of Raw Materials	76.8%
	100.0%		

Learning and growth	20.0%		80.3%
Strategic Objective	Weight	Key Performance Indicator	Status
Improve skills	50.0%	Total Training spend	33.3%
Improve company culture	50.0%	Absenteeism rates	66.4%
		Labour turnover rates	188.0%

78.05%

IDC — Industrial Development Corporation

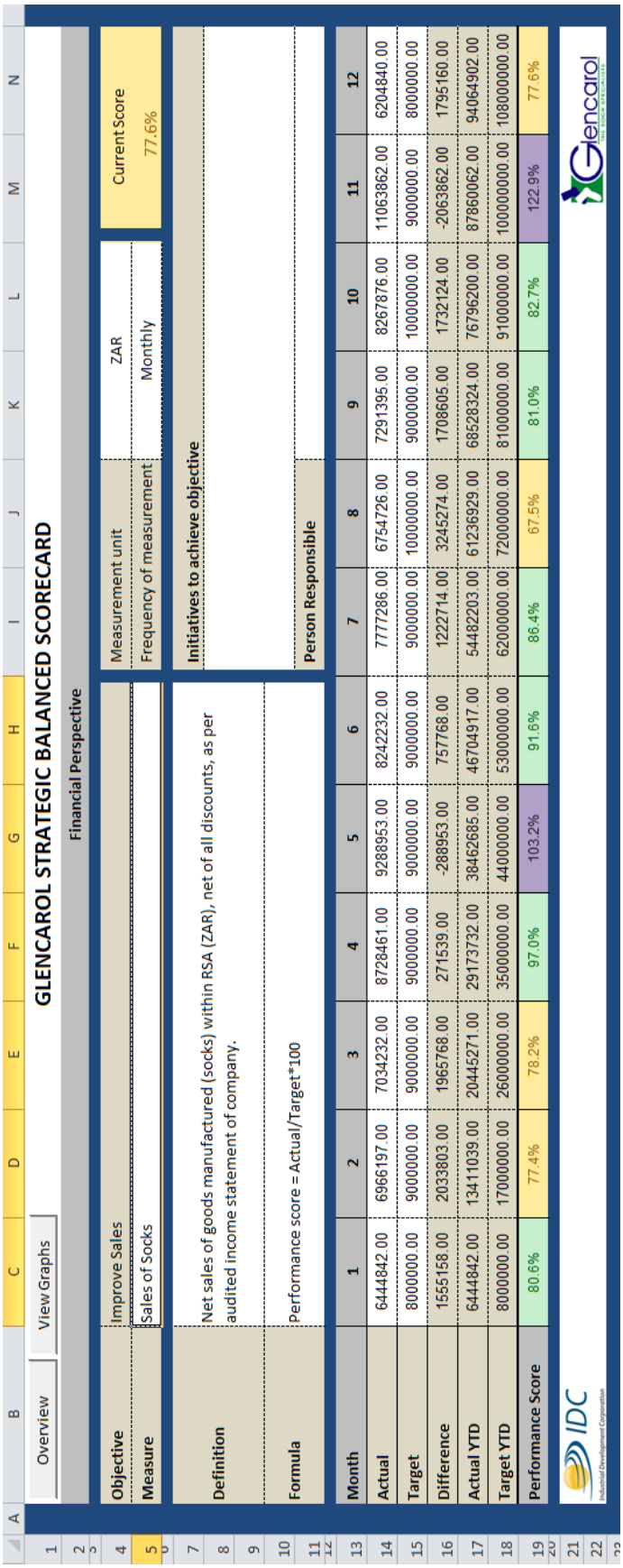
Change Performance Range

Glencarol — The Sock Specialists

Values used in the solutions do not reflect the true results of the company as it was adjusted for confidentiality reasons.

The manager or user can view each KPI in more detail. To view a KPI, simply click on the name of the KPI and a hyperlink will navigate the user to the KPI interface. An example of the navigation to the “Sales of Socks” KPI is given in figure 19.

Figure 19: KPI interface of the MS Excel Model



The KPI interface is very user friendly and offers continuity throughout the entire model since every KPI interface has the same structure.

The standard series include the Actual, Actual Year to Date, Target, Target Year To Date, Difference (Target – Actual) and Performance Score. These series were however adjusted to fit certain measures. For example the "Waste of raw materials" measure has a Waste (kg) en Yarn Issued into production (kg) series. Then the waste percentage (%) series is calculated by dividing the waste (kg) through the yarn issued into production (kg). The waste percentage series will then substitute the Actual series in the standard series.

The white cells are the areas where the user is allowed to enter or change data.

Table 8: KPI Interface Definitions

Measure	Name of the Measure. Changes to this cell automatically update the name of the KPI on the overview page.
Description	Description of Measure to clarify exactly what the measure entails and how the measure should be measured.
Measurement unit	Unit of the captured data.
Frequency of measurement	The frequency of measurement is the amount of times the measurement data is captured per year. The user can select the frequency of measurement by selecting monthly, quarterly, half yearly or yearly from the dropdown list. The system designer or system maintainer will be responsible for hardcoding the changes to the interface if changes to the frequency of measurement is made.
Formula	Formula of how the Performance Score is calculated.
Person Responsible	The name of the person responsible for capturing the data and maintaining a good level of the performance for the KPI.
Initiatives	The initiatives are the actions that are required to maintain a good level of performance. The management team needs to identify these initiatives based on experience or an expert's opinion. The initiatives also need to be adjusted if it is not contributing to the improvement the performance of the KPI.

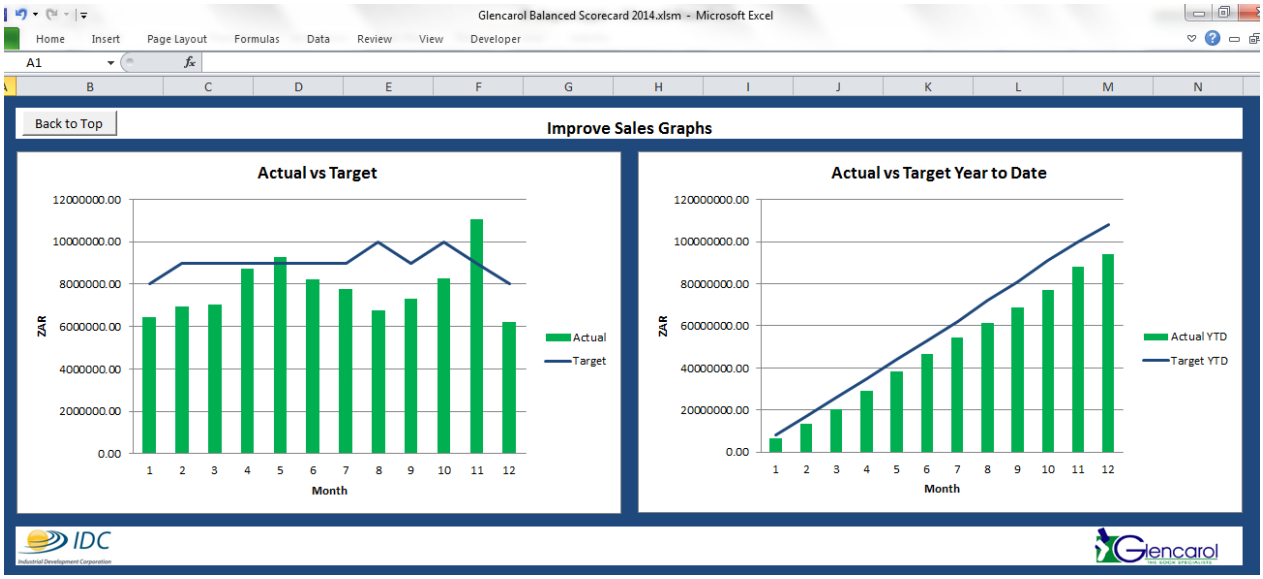
Target	The target is set by the management team, based on what they want to achieve. Some of the targets can only be set based on historical data or managerial experience. Where stability is required the target will be equal to the achieved value from the previous year. In certain cases the target can be calculated by using techniques such as sales or production forecasting techniques.
Actual	The actual is the value that is achieved for the measurement period.

The grey series are calculated automatically and cannot be changed by the user.

Graphs

Each KPI has a graph that provides a visual presentation and trends of the data. To view the graphs click on the "View Graphs" button. As shown in figure 20 both the Actual versus Target and the Actual YTD versus Target YTD graphs are shown.

Figure 20: KPI Graphs of the MS Excel Model



Word documentation

The MS Excel Model does not include word documentation, but the structure of the system allows the managers easier access to the data. This will allow them to fill out the IDC's monitoring and evaluation questionnaire much faster.

How can this model be used to manage performance?

A manager opens the model on the overview interface (figure 18) that clearly shows the performance of the strategic objectives based on the colour of the performance range. The strategic objectives are represented by the KPIs and the manager can clearly see which KPI contributes to the good or bad performance of the strategic objective.

The manager can then navigate to the KPI's interface (figure 19) of the KPI that is not performing up to standard. The manager must then discuss the performance of the KPI with the person responsible to find out why the area is under-performing and if all of the initiatives are followed correctly. If all of the initiatives are in place, but the area is still under-performing then the manager has to either adjust the targets or set new initiatives to improve the performance.

The manager should also check the trends on the graphs of the KPI that are performing to ensure that the performance of the areas remains on an acceptable level or increases to ensure that the company keeps improving.

System Structural Changes

In the event that changes need to be made to the structure of the system, the changes can be made but will require a lot of time and assistance from the system developer or maintainer.

User manual

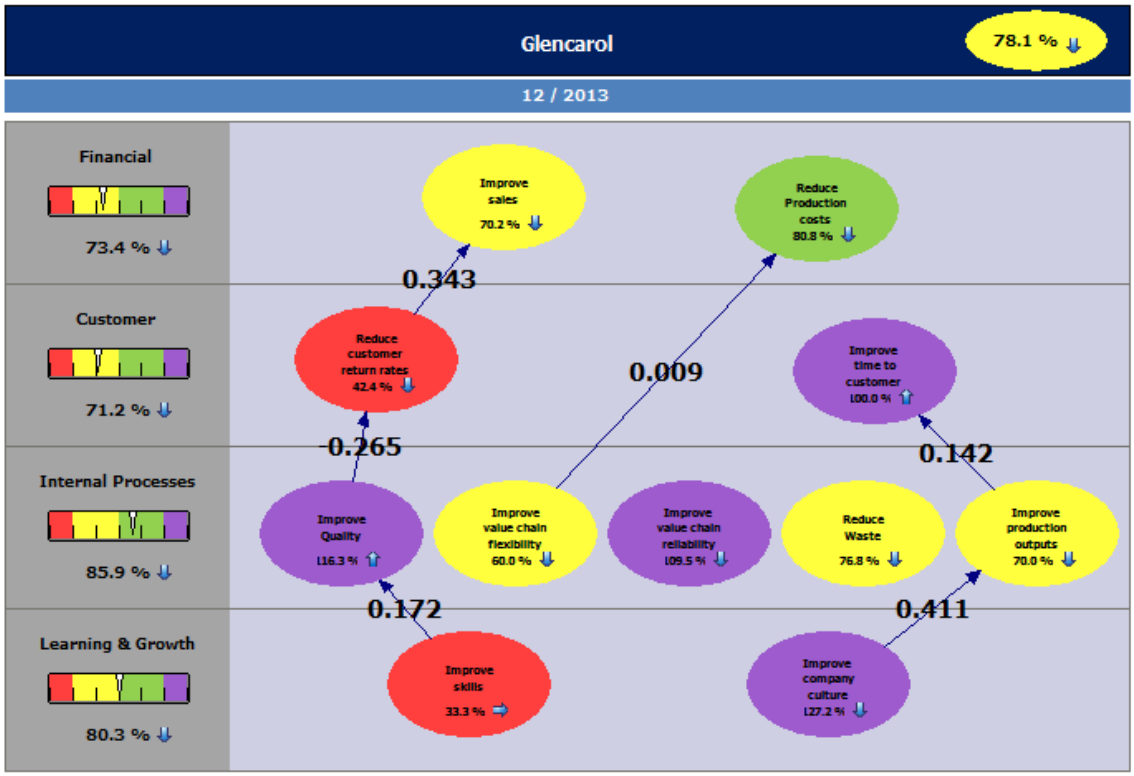
For guidelines to use the system, refer to the User Manual in Appendix B.

6.2.2. Solution 2: QPR Model

The QPR Model offers the web-based capabilities that the IDC requires. It is developed in the metrics and viewed and used by the user through the QPR Portal. Everything that is created in the metrics will be available on the portal. The first step to create the scorecard is to create all the elements as set out by the strategy map. The periods and the measurement units need to be defined after the elements are created. The periods used in this model are weekly, monthly, quarterly, half yearly and yearly for the years 2012 to 2014. More periods can later be added if required.

The strategy map design in the QPR metrics offers a more comprehensive view with correlation factors to demonstrate how one objective influences another. The correlation factors are illustrated on the presented arrows between the strategic objectives.

Figure 21: Strategy Map in QPR



The hierarchy shows which elements are used to calculate the performance scores of the various strategic objectives. The hierarchy illustrates the reporting structure of the company. Figures 22 shows the financial elements, figure 23 shows the internal processes elements, figure 24 shows the customer elements and figure 25 shows the learning and growth elements. All four figures form part of the overall hierarchy of the company.

Figure 22: Financial elements in the QPR model

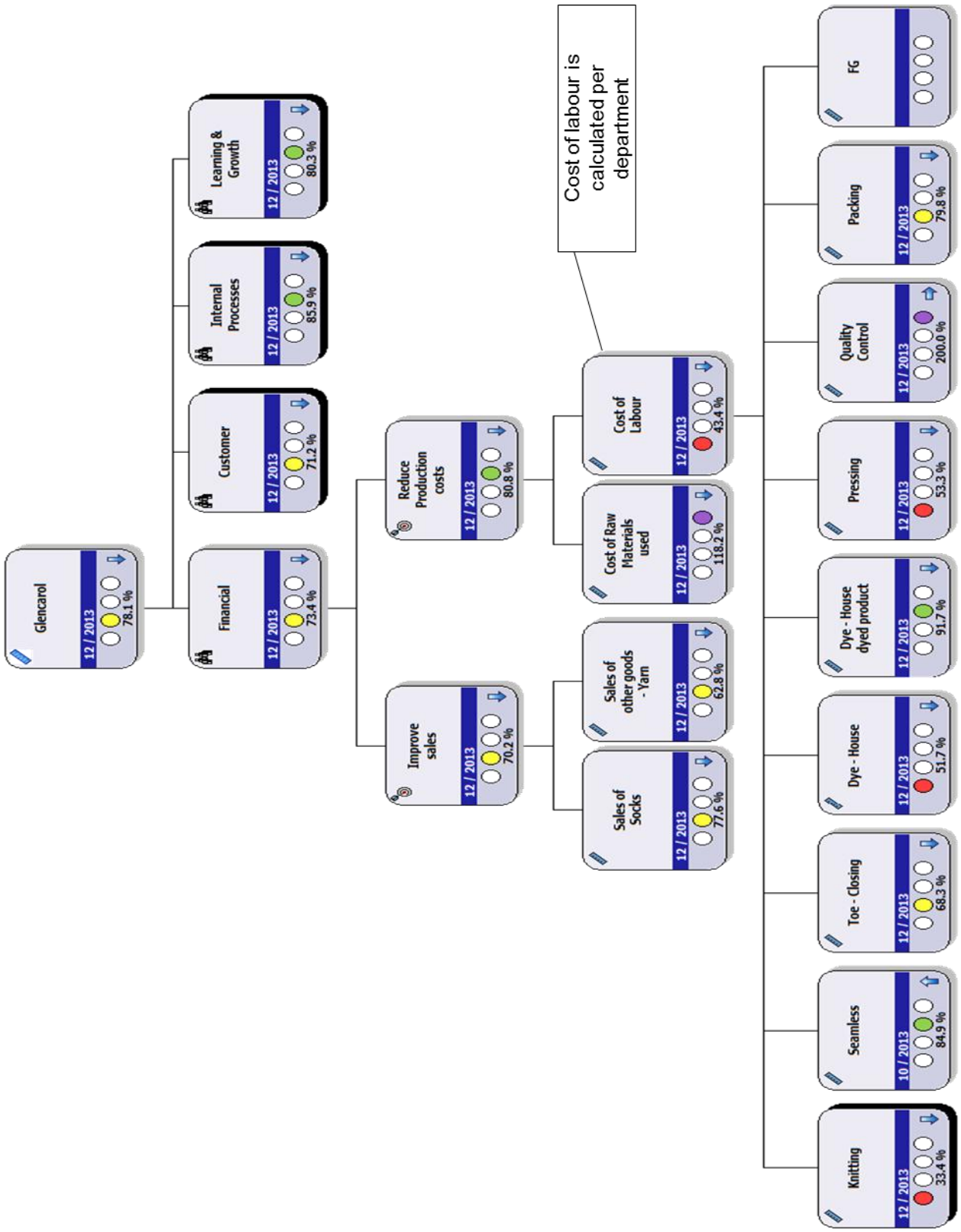


Figure 23: Internal Processes Elements in the QPR model

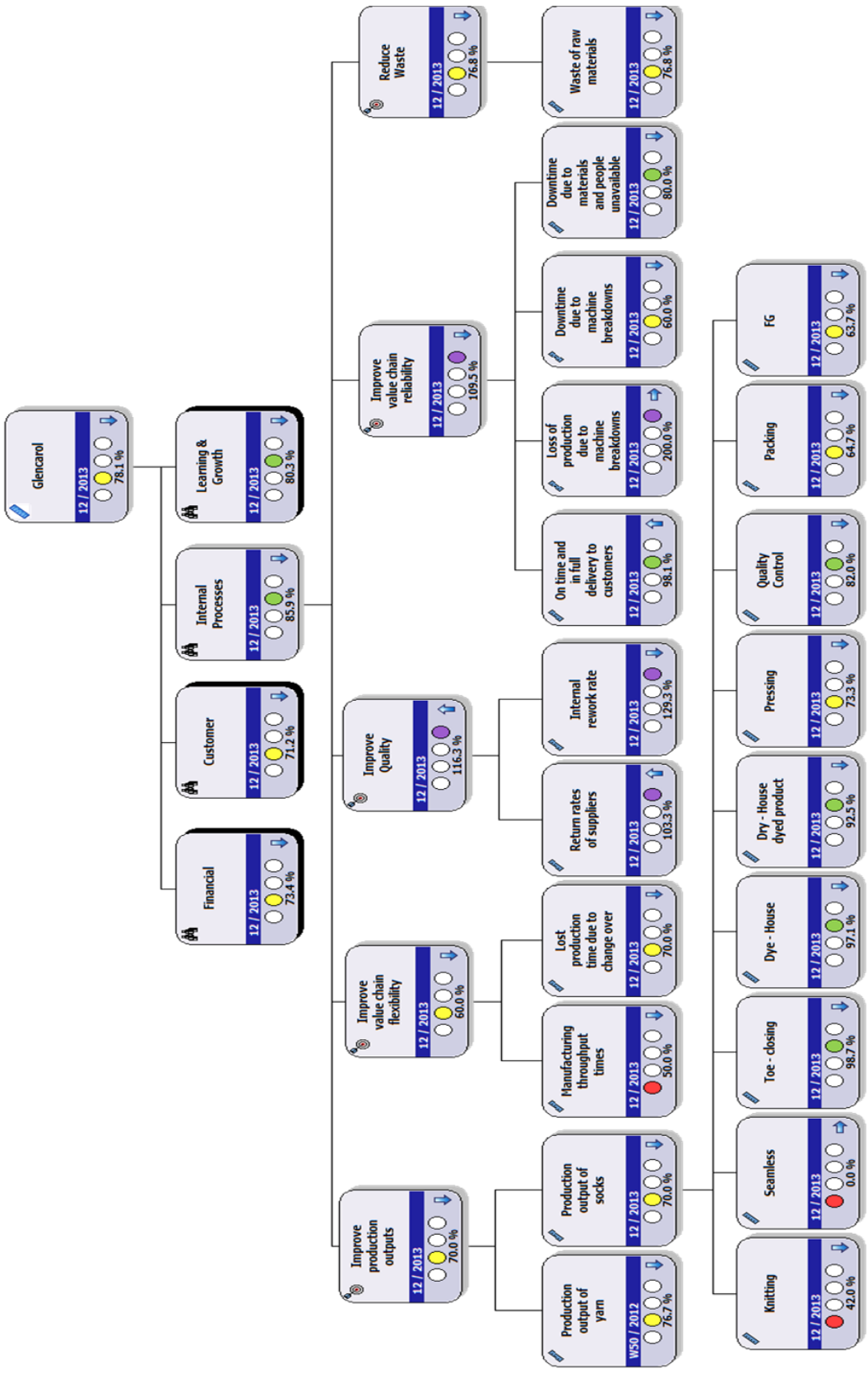


Figure 24: Customer Elements of the QPR model

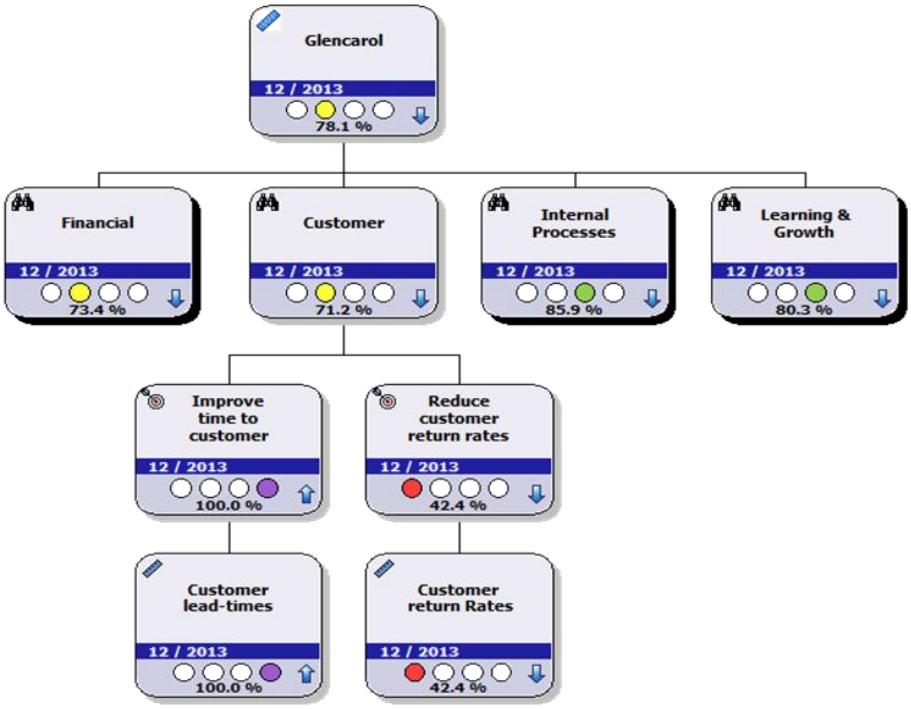
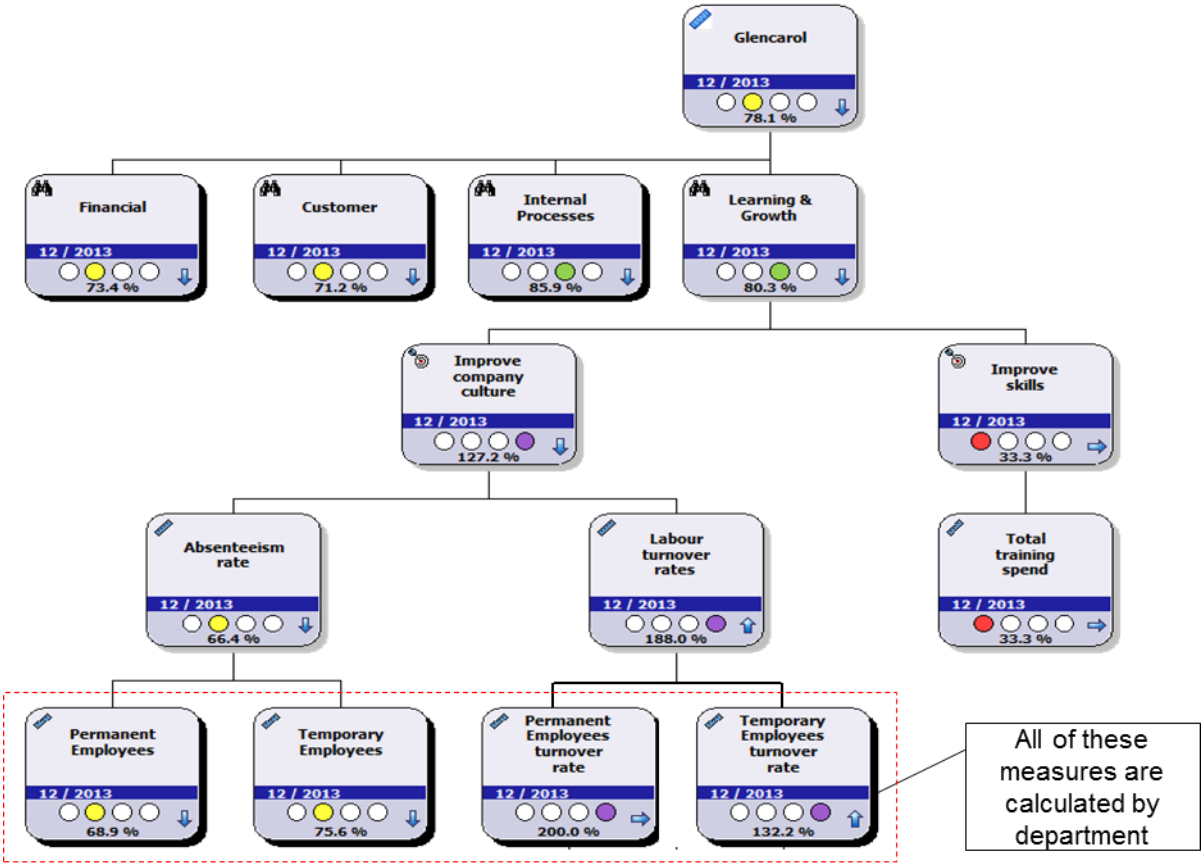
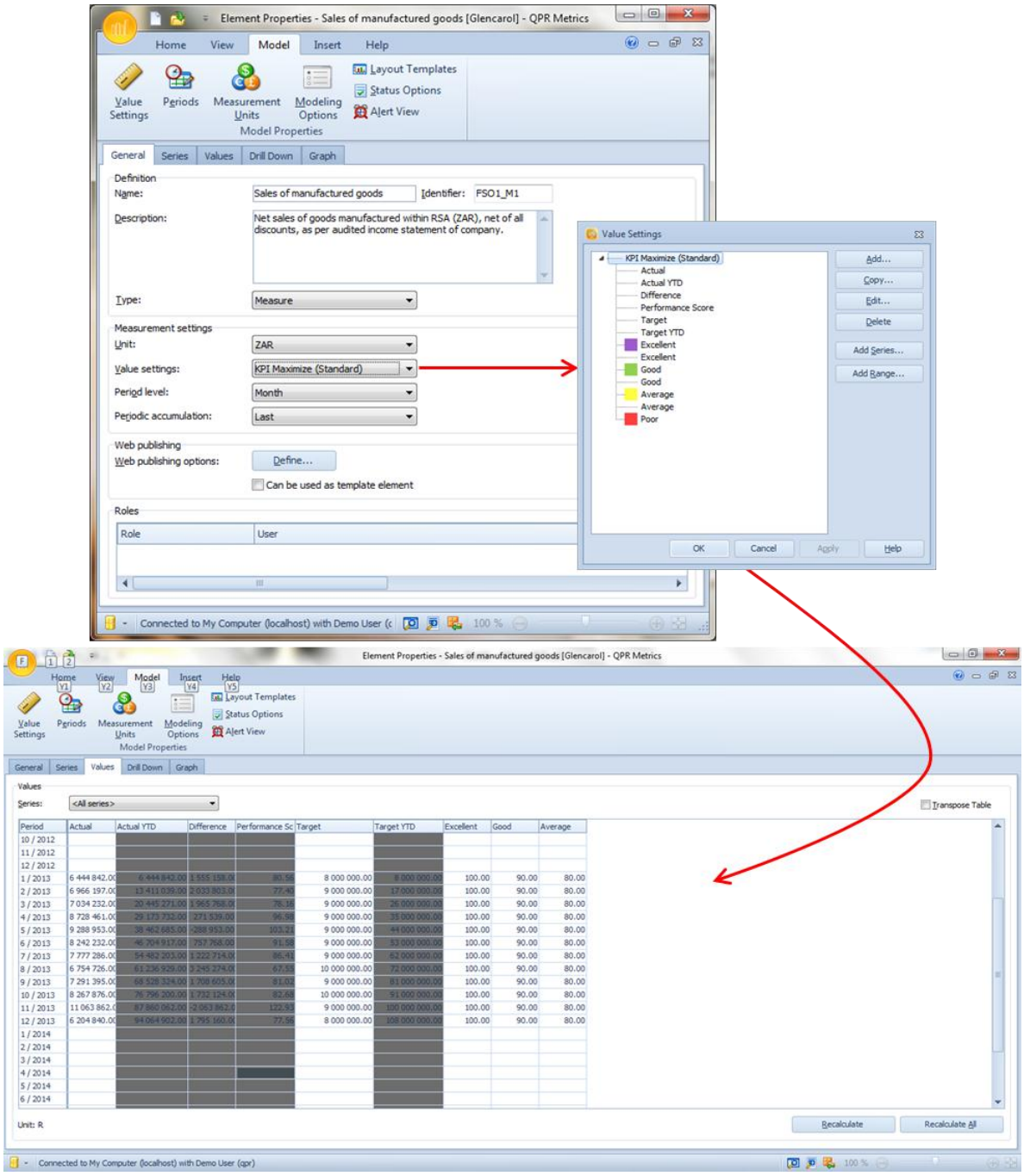


Figure 25: Learning & Growth Elements of the QPR model



Custom properties need to be assigned for each perspective, strategic objective and KPI. As seen in figure 26, each element needs to include an identifier, description, measurement unit, period level and value setting. The value setting determines the series that are available to enter data. The white columns are where the user can enter data and the grey columns are where formulas are calculated automatically. The excellent, good and average series determines the performance range.

Figure 26: Element Properties and series- Sales of manufactured goods (QPR Model)



Performance Scores are calculated as follows:

- Maximising objective (Aim is to achieve an actual value higher than the target value)

  IIF(TARGET=0,ROUND((ACTUAL/100+1)*100,2),
  IIF(TARGET>0,ROUND((1-(TARGET-ACTUAL)/TARGET)*100,2),
  IIF(TARGET<0,ROUND((1+(TARGET-ACTUAL)/TARGET)*100,2),"")))

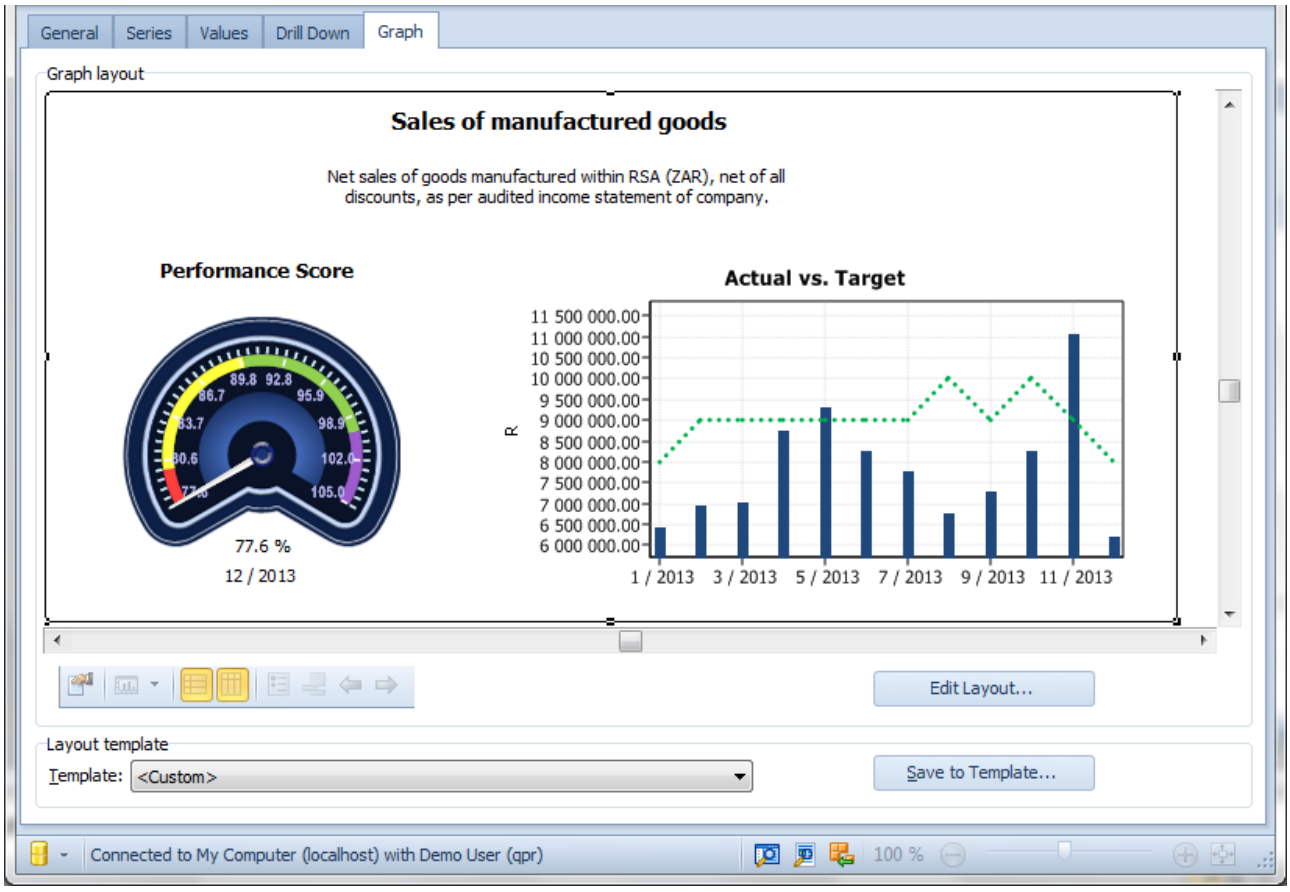
- Minimising objective (Aim is to achieve an actual value lower than the target value

  IIF(TARGET=0,ROUND((1-ACTUAL/100)*100,2),
  IIF(TARGET>0,ROUND((1+(TARGET-ACTUAL)/TARGET)*100,2),
  IIF(TARGET<0,ROUND((1-(TARGET-ACTUAL)/TARGET)*100,2))))

Graphs

The graphs and indicators should be customised for each perspective, strategic objective and KPI. These graphs will be displayed when you select a specific element in the portal.

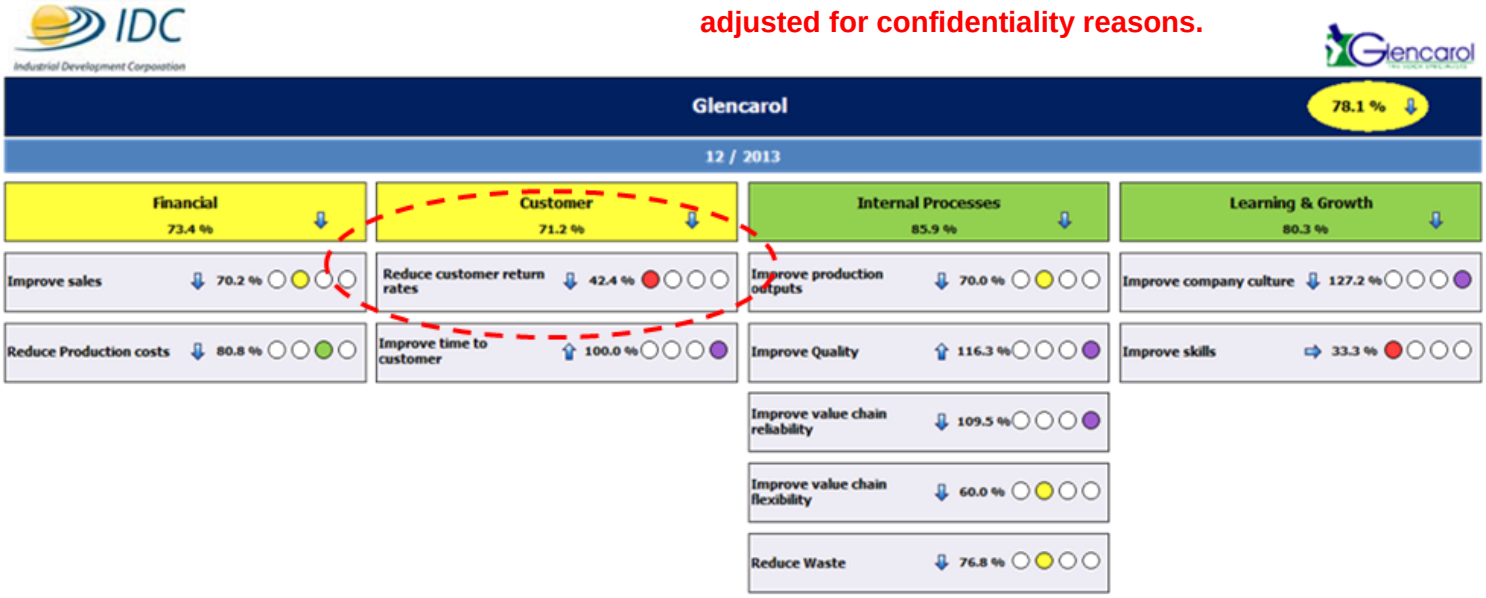
Figure 27: Element graph (QPR Model)



QPR Portal – User Perspective

Values used in the solutions do not reflect the true results of the company as it was adjusted for confidentiality reasons.

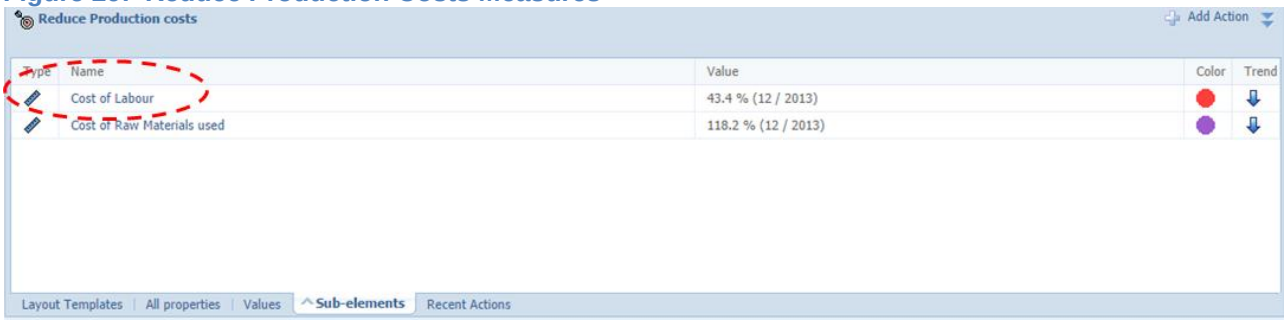
Figure 28: Overview - QPR Model



The user opens the portal displaying the overview page. From the overview page, non-performing elements can be identified and opened to identify in which periods the element under-performed and why. The elements with downward trends are easily identifiable and should be accessed to determine the cause of the declining performance.

For example in the “Reduce Production Costs” strategic objective, a downward trend was identified and the user can select the objective which will navigate to the objective’s measures.

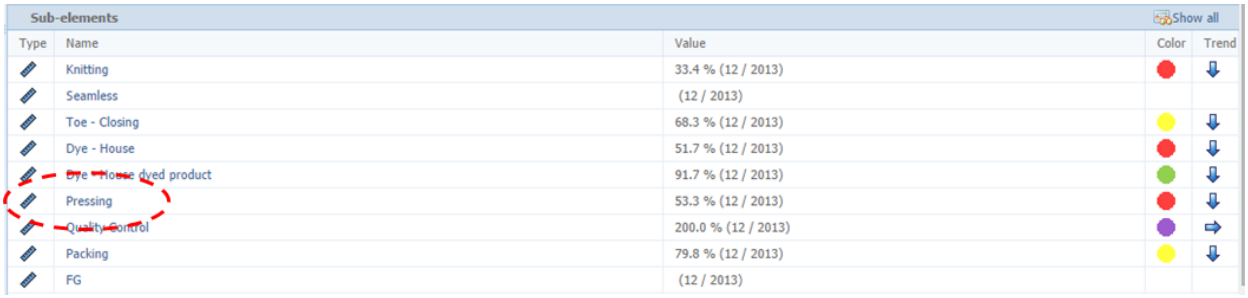
Figure 29: Reduce Production Costs Measures



The “Cost of Labour” measure is performing poorly and may be the reason for the declining performance of the “Reduce Production Costs” objective. When navigating to the “Cost of Labour” measure, the departments that contribute to the poor performance can be identified.

It is clear that the knitting, pressing and the dye-house departments are not performing to the required standard.

Figure 30: Cost of Labour Results per department

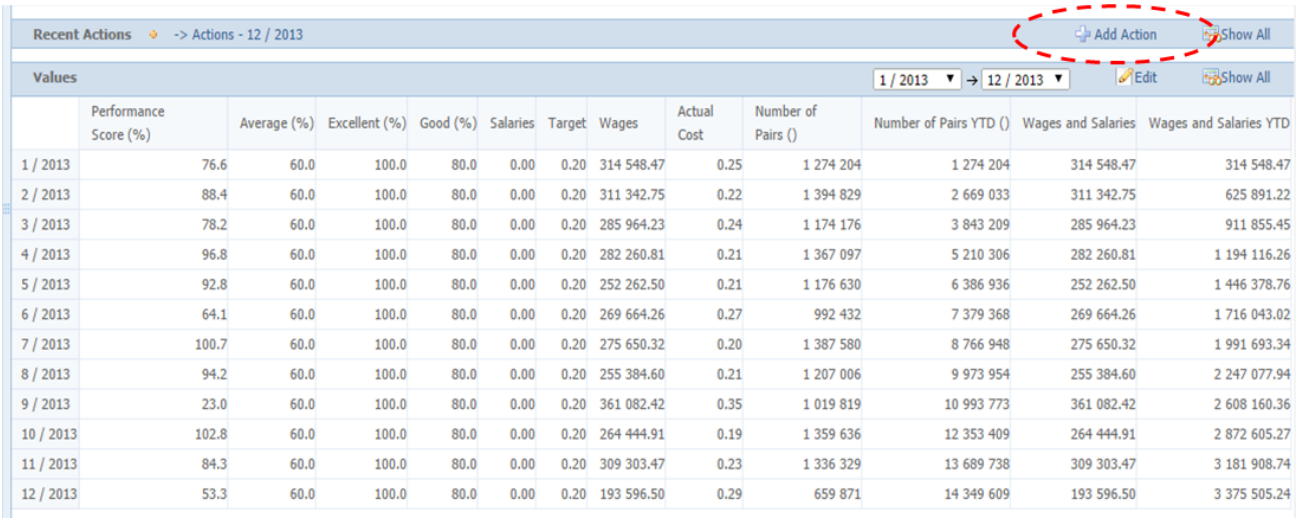


Sub-elements — Show all

Type	Name	Value	Color	Trend
	Knitting	33.4 % (12 / 2013)		
	Seamless	(12 / 2013)		
	Toe - Closing	68.3 % (12 / 2013)		
	Dye - House	51.7 % (12 / 2013)		
	Dye - House dyed product	91.7 % (12 / 2013)		
	Pressing	53.3 % (12 / 2013)		
	Quality Control	200.0 % (12 / 2013)		
	Packing	79.8 % (12 / 2013)		
	FG	(12 / 2013)		

The data relating to the each department's performance can be viewed and analysed. The pressing department's data is analysed in figure 31. New data can also be entered at this point.

Figure 31: Data from Pressing Department's Cost of Labour



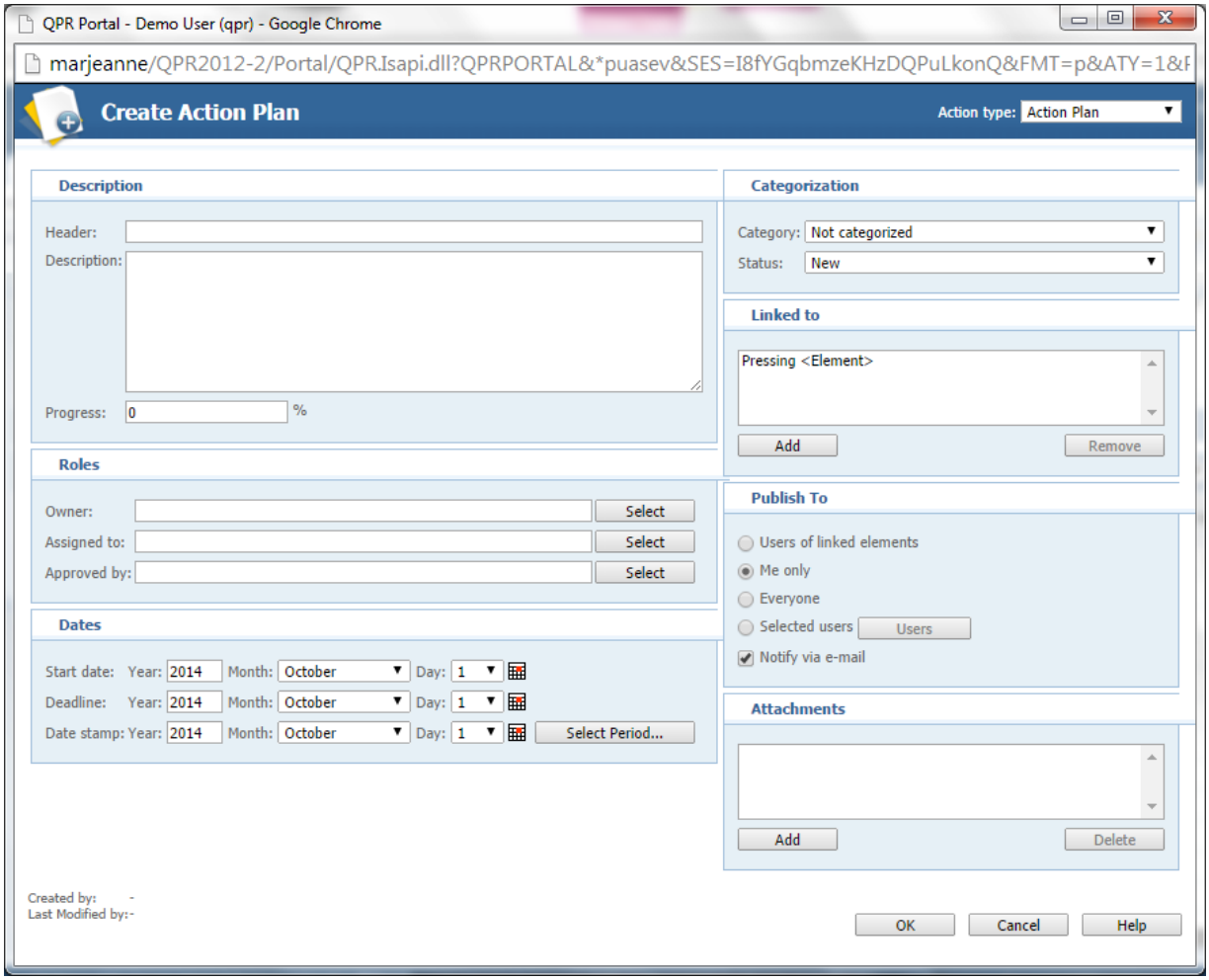
Recent Actions -> Actions - 12 / 2013 — Add Action — Show All

Values — 1 / 2013 → 12 / 2013 — Edit — Show All

	Performance Score (%)	Average (%)	Excellent (%)	Good (%)	Salaries	Target	Wages	Actual Cost	Number of Pairs ()	Number of Pairs YTD ()	Wages and Salaries	Wages and Salaries YTD
1 / 2013	76.6	60.0	100.0	80.0	0.00	0.20	314 548.47	0.25	1 274 204	1 274 204	314 548.47	314 548.47
2 / 2013	88.4	60.0	100.0	80.0	0.00	0.20	311 342.75	0.22	1 394 829	2 669 033	311 342.75	625 891.22
3 / 2013	78.2	60.0	100.0	80.0	0.00	0.20	285 964.23	0.24	1 174 176	3 843 209	285 964.23	911 855.45
4 / 2013	96.8	60.0	100.0	80.0	0.00	0.20	282 260.81	0.21	1 367 097	5 210 306	282 260.81	1 194 116.26
5 / 2013	92.8	60.0	100.0	80.0	0.00	0.20	252 262.50	0.21	1 176 630	6 386 936	252 262.50	1 446 378.76
6 / 2013	64.1	60.0	100.0	80.0	0.00	0.20	269 664.26	0.27	992 432	7 379 368	269 664.26	1 716 043.02
7 / 2013	100.7	60.0	100.0	80.0	0.00	0.20	275 650.32	0.20	1 387 580	8 766 948	275 650.32	1 991 693.34
8 / 2013	94.2	60.0	100.0	80.0	0.00	0.20	255 384.60	0.21	1 207 006	9 973 954	255 384.60	2 247 077.94
9 / 2013	23.0	60.0	100.0	80.0	0.00	0.20	361 082.42	0.35	1 019 819	10 993 773	361 082.42	2 608 160.36
10 / 2013	102.8	60.0	100.0	80.0	0.00	0.20	264 444.91	0.19	1 359 636	12 353 409	264 444.91	2 872 605.27
11 / 2013	84.3	60.0	100.0	80.0	0.00	0.20	309 303.47	0.23	1 336 329	13 689 738	309 303.47	3 181 908.74
12 / 2013	53.3	60.0	100.0	80.0	0.00	0.20	193 596.50	0.29	659 871	14 349 609	193 596.50	3 375 505.24

The user can now add an action plan (initiative) that will help to improve the performance of the measure. To add an action select the "Add Action" option as indicated in figure 33.

Figure 32: Action Plan in QPR Model



Word Documentation

The QPR software has an additional MS Word Add-in that allows the user to create a structured report to run continuous reports with different parameters. This function will allow Glencarol to automatically complete the performance section of the IDC's monitoring and evaluation questionnaire. The word documentation is created to automatically insert data from the QPR portal into a word document based on the different parameters specified by the user. This is done by creating different query tabs that specifies which type of data should be inserted, as seen in appendix D. The word documentation includes a detailed report of the different measures of the system as seen in appendix E.

User manual

For more guidelines regarding the functionality of the QPR Portal refer to the User Manual in Appendix C.

6.3. Selection of preferred solution

Both models were built on the same principles and are thus valid solutions, with each solution offering something that the other does not. It depends on if the IDC is willing to invest money in a proper Performance Management solution, or if it wants to continue with the manual tracking of the client companies' performance.

The suggested solution is the QPR model, because it offers the web-based capabilities and a lot of additional features that the IDC requested. The advantages and disadvantages of the solutions were weighed against each other to determine the best solution.

Table 9: Advantages and Disadvantages of the QPR solution over the MS excel solution

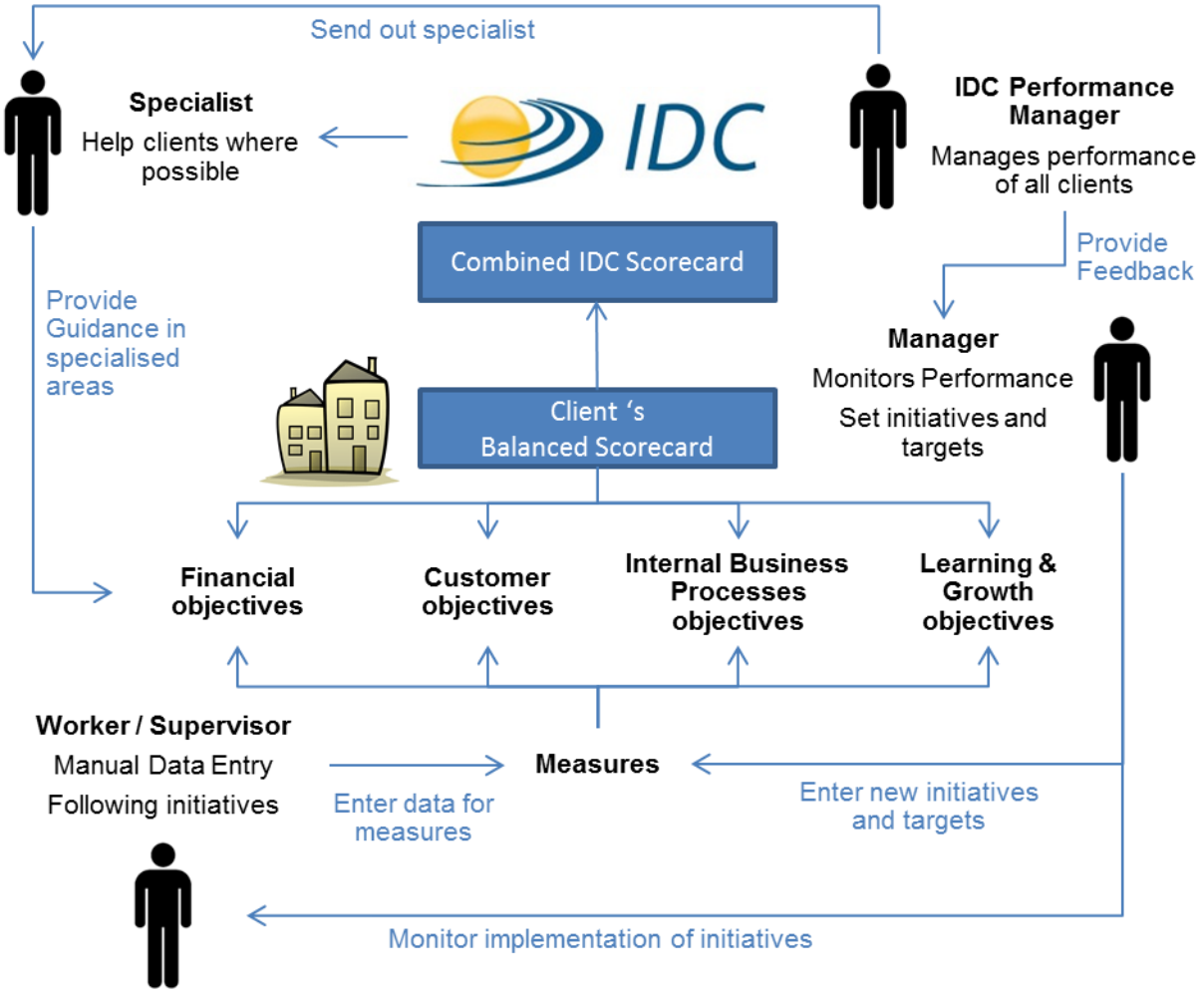
	QPR Model	MS Excel Model
Cost	The main disadvantage of the QPR Model is that there is a cost involved to obtain and install the software.	The advantage of the MS Excel Model is that it that it is a cost-free solution, because the company already has the software available.
IDC Accessibility	The QPR Model has web-based capabilities and the IDC can access any client's performance at any given time.	The MS Excel Model does not have internet capabilities, but the model can be emailed to the IDC at the end of each month, or as requested.
Performance Visibility	The QPR Model offers a lot of additional features like status control, alerts and the ability to attach evidence of results to improve the performance visibility.	Managers should frequently look at the overview to identify the problem areas.
Word Documentation	QPR offers an additional Word Add-in feature that allows the user to create word documentation. This feature will be used to fill in the IDC's monitoring and evaluation questionnaire almost completely.	The MS Excel model does not offer word documentation, but the structure allows the managers of the client companies to fill in the IDC's monitoring and evaluation questionnaire much faster.

User Accessibility	QPR is accessible from any device that has internet access if the person has a user licence. To make changes to the structure the person needs to have the QPR software installed on their system and needs a designer licence.	The MS Excel model can be accessed from any device that has the MS Excel software and the model. It does not need to be connected to the internet.
Structural Changes	QPR is a very user-friendly system so it will be easy to adjust the structure. Any user with a designer license will be able to make the changes.	Any structural changes will be a timely process. Only the system designer or maintainer will be able to make changes.

7. SOLUTION VALIDATION

The solution offers managers a tool to manage the performance of the organisational goals.

Figure 33: Performance Review Cycle



Data can be entered into a user friendly dashboard by the person responsible for the measure. The data is displayed on an overview dashboard that shows the performance of actual achievement versus the required target set for each objective.

By analysing the overview the manager can assess which areas in the organisation are performing and which areas are not performing by interpreting the colour of the coded indicators. The areas that are not performing will be indicated in red. The manager can then drill down to the measures to see which specific area is undermining performance and how

far it is off-target. The manager can refer to the person responsible for that area of the organisation to ensure that all of the initiatives are followed correctly. If the manager finds that those initiatives do not improve the objective, the manager should design new initiatives for the objective or adjust the targets accordingly. This will ensure that over time all the strategic objectives are achieved.

The IDC can use the system in a similar fashion. The system is available online and the IDC can access the system at any given time. The IDC can use the Status Control and the Attach Evidence feature to ensure that the clients enter valid data. The IDC can monitor the performance of the clients and if any client does not perform up to the required standards, the IDC can send out specialists or action plans to ensure that all of the objectives are reached. The word documentation feature of the QPR software enables automatic completion of the performance section of the IDC monitoring and evaluation questionnaire, it allows the IDC to continue with their questionnaire system.

The Balanced Scorecard methodology is a tested and validated method of calculation and evaluating a system's performance score. The implemented system calculated the performance on the same principles by multiplying the performance scores with perspective weights to provide an overall performance score.

8. CONCLUSION

The Balanced Scorecard Methodology provides the necessary framework for strategic alignment. When using the Balanced Scorecard to measure strategic performance it is recommended to design a strategy map to help align the strategic objectives with the organisations vision.

Measures, targets and initiatives have to be identified to help create the measurement structure that will be used to calculate the performance of the organisation. The performance results should be monitored continuously, because they are essential in knowing if the organisation reached its strategic goals.

Currently the performance management system that the IDC implements lacks in continuous measurement and in structure. The Balanced Scorecard will provide this structure. If the IDC decides to invest in a proper Performance Management tool with web based capabilities overall visibility of the performance of all the client companies will be available.

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APPENDIX A - Signed Industry Sponsorship Form

Department of Industrial & Systems Engineering
Final Year Projects
Identification and Responsibility of Project Sponsors

All Final Year Projects are published by the University of Pretoria on *UPSpace* and thus freely available on the Internet. These publications portray the quality of education at the University and have the potential of exposing sensitive company information. It is important that both students and company representatives or sponsors are aware of such implications.

Key responsibilities of Project Sponsors:

A project sponsor is the key contact person within the company. This person should thus be able to provide the best guidance to the student on the project. The sponsor is also very likely to gain from the success of the project. The project sponsor has the following important responsibilities:

1. Confirm his/her role as project sponsor, duly authorised by the company. Multiple sponsors can be appointed, but this is not advised. The duly completed form will considered as acceptance of sponsor role.
2. Review and approve the Project Proposal, ensuring that it clearly defines the problem to be investigated by the student and that the project aim, scope, deliverables and approach is acceptable from the company's perspective.
3. Review the Final Project Report (delivered during the second semester), ensuring that information is accurate and that the solution addresses the problems and/or design requirements of the defined project.
4. Acknowledges the intended publication of the Project Report on UP Space.
5. Ensures that any sensitive, confidential information or intellectual property of the company is not disclosed in the Final Project Report.

Project Sponsor Details:

Company:	Glencarol (Pty) Ltd
Project Description:	Process and product improvement
Student Name:	Marjeanne Biel
Student number:	10688448
Student Signature:	
Sponsor Name:	R. Thunmugam
Designation:	CEO
E-mail:	raj@glencarol.co.za
Tel No:	012 7198300
Cell No:	082 466 7721
Fax No:	012 7198305
Sponsor Signature:	

APPENDIX B – MS Excel User Manual

User Manual – Excel Model

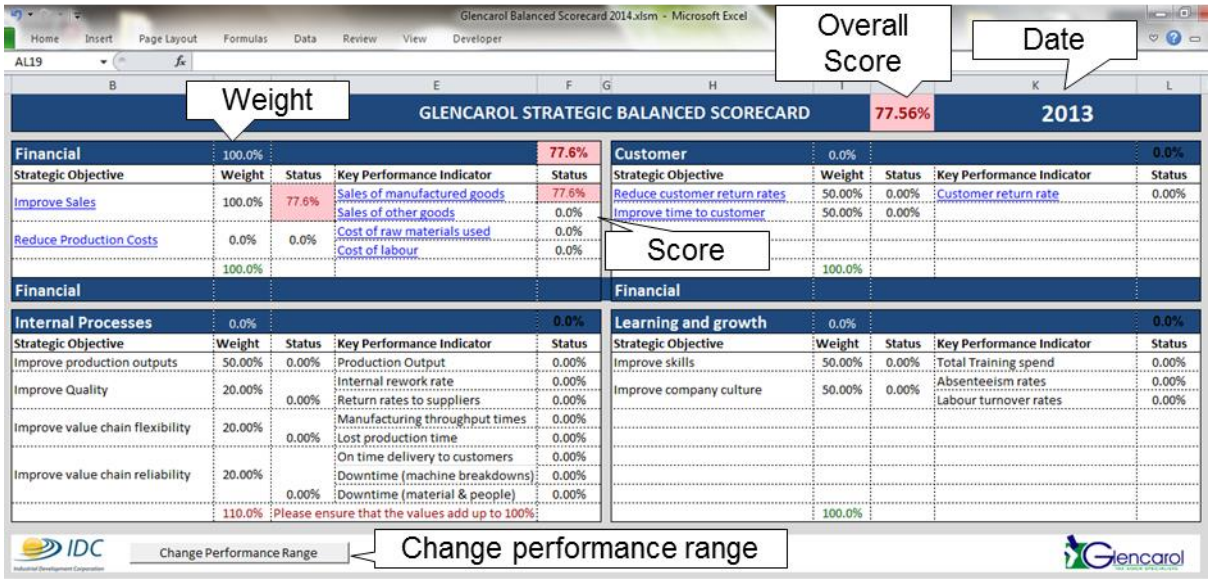
1. Save the file on the computer as Glencarol-Balanced-Scorecard-YYYY.xmls

2. Open the file from the saved location. If the file location is unknown use the search function of the operating function to locate the file.

3. Adjust visibility – Ensure that all of the data can be viewed at once by adjusting the zoom of the document in the bottom right hand corner of the document.

4. Overview – the model opens up on the overview page as seen in figure 1. The overview page provides the user a summary of the performance both the strategic objectives and key performance indicators. The user can uses this overview to identify areas that are under-performing.

Figure 1: Overview of Glencarol's Balanced Scorecard for 2013

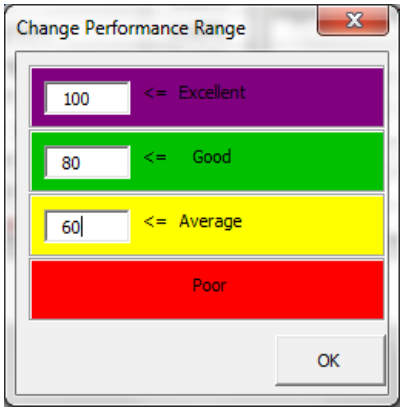


The summary is locked and the only changes that the user can make are to change the strategic objective names and to adjust the weights. To change the name of the strategic objective select the cell with the name that needs to be changes and type in a new name. Similarly with the weights select the cell and enter the new value.

The Key Performance indicators determine the performance scores of the strategic objectives. The overall performance score is calculated automatically and cannot be adjusted by the user.

5. Change performance range – The performance range the colour ranges of the performance. The performance range can be customised by selecting “Change Performance Range” button on the overview page (figure 1).

Figure 2: Change Performance Range Dialog

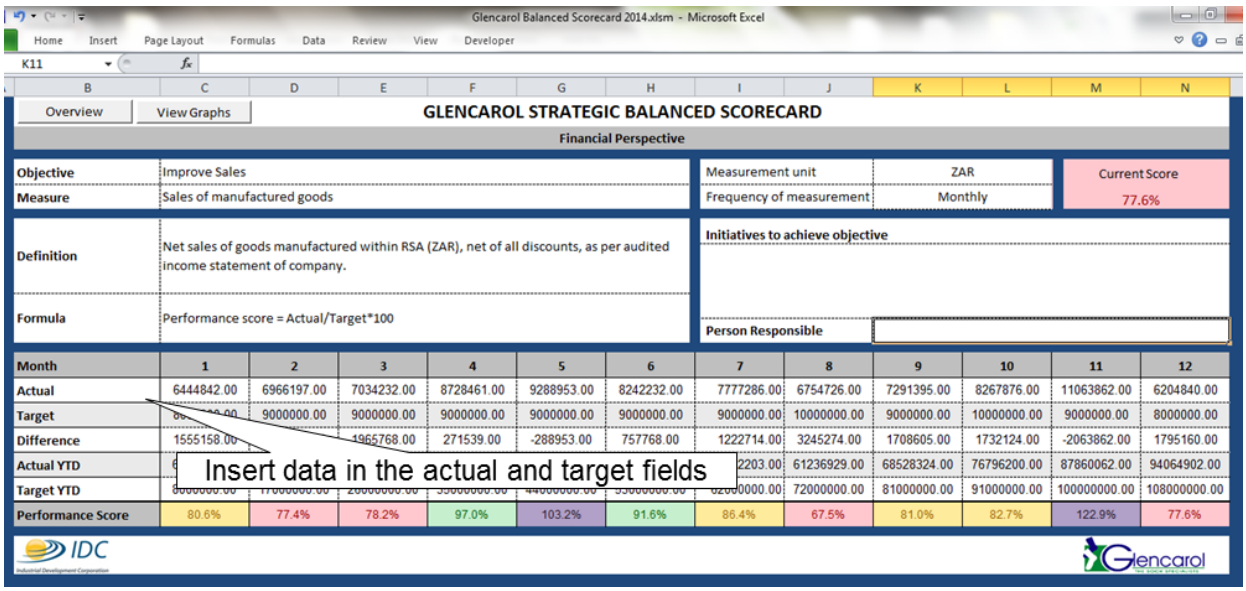


A dialog box will appear that allows the user to insert the range values that will trigger the colours. Performance above the “Excellent” range will be represented in a purple colour. This will automatically update the colours throughout the entire model. Performance between the “Excellent” and “Good” ranges will appear green, performances between the “Good” and “Average” range will appear yellow while anything below the “Average” range will be presented in a red colour and represents poor performance.

6. To navigate to the KPI Interface click on the name of the KPI that you want to view (figure 1). Every KPI has its own form to show more detail.

The KPI interfaces are all similar in structure. An example of the KPI interface is provided in figure 3.

Figure 3: KPI interface of the MS Excel Model



The white cells are the areas where the user is allowed to enter or change data.

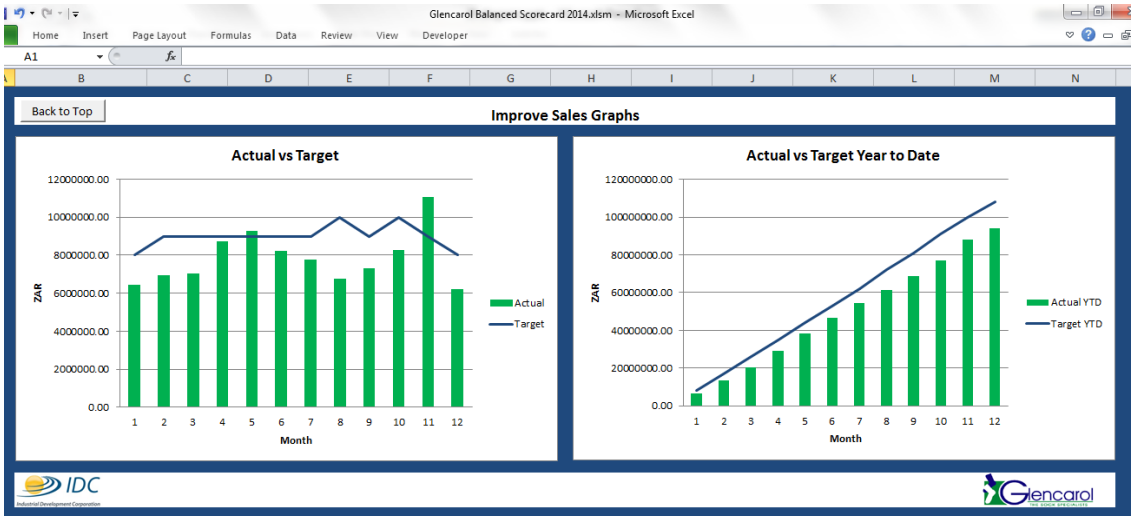
Table 1: KPI Interface Definitions

Measure	Name of the Measure. Changes to this cell automatically update the name of the KPI on the overview page.
Description	Description of Measure to clarify exactly what the measure entails and how the measure should be measured.
Measurement unit	Unit of the captured data.
Frequency of measurement	The frequency of measurement is the amount of times the measurement data is captured per year. The user can select the frequency of measurement by selecting monthly, quarterly, half yearly or yearly from the dropdown list. The system designer or system maintainer will be responsible for hardcoding the changes to the interface if changes to the frequency of measurement is made.
Formula	Formula of how the Performance Score is calculated.
Person Responsible	The name of the person responsible for capturing the data and maintaining a good level of the performance for the KPI.
Initiatives	The initiatives are the actions that are required to maintain a good level of performance. The management team needs to identify these initiatives based on experience or an expert's opinion. The initiatives also need to be adjusted if it is not contributing to the improvement the performance of the KPI.
Target	The target is set by the management team, based on what they want to achieve. Some of the targets can only be set based on historical data or managerial experience. Where stability is required the target will be equal to the achieved value from the previous year. In certain cases the target can be calculated by using techniques such as sales or production forecasting techniques.
Actual	The actual is the value that is achieved for the measurement period.

The grey series are calculated automatically and cannot be changed by the user.

7. The View Graphs button navigates the user to the graphs of the data as seen in figure 4. It provides a visual presentation and trends of the data.

Figure 4: KPI Graphs of the MS Excel Model



To go back to the data click on the “Back to Top” button.

8. Save – Go to File Save to make any change.

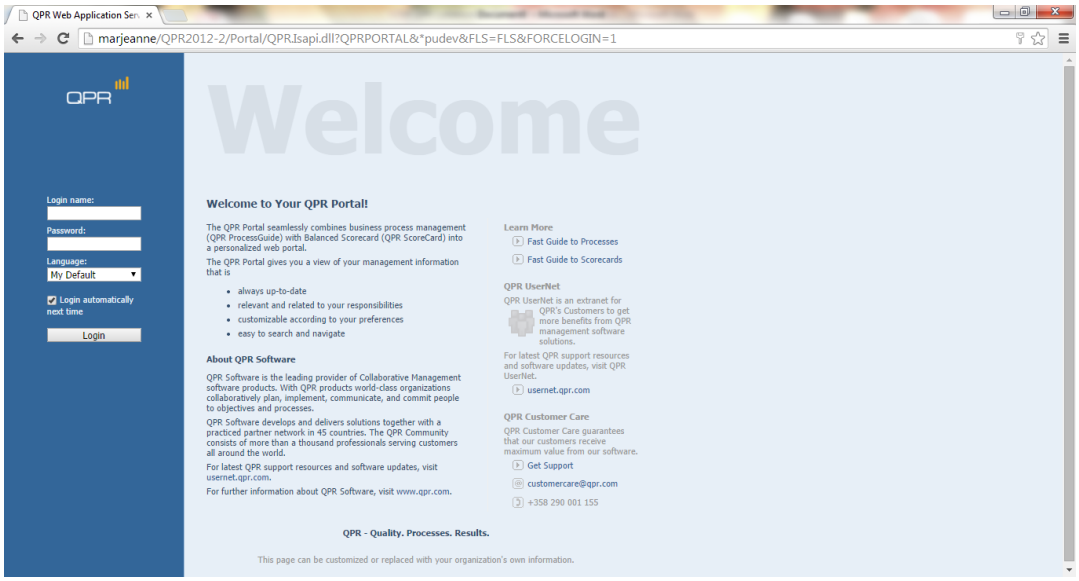
9. Exit – Exit the model by clicking the “Close” button in the top right hand corner.

APPENDIX C – QPR Portal User Manual

QPR PORTAL – USER MANUAL

1 Logging In

Open the QPR Portal by selecting the Internet Explorer icon. Enter the web-page address (URL: **http://srvqpr01/QPR)** or select the QPR Portal link on the Intranet ERP application.



The QPR Login Page will open.

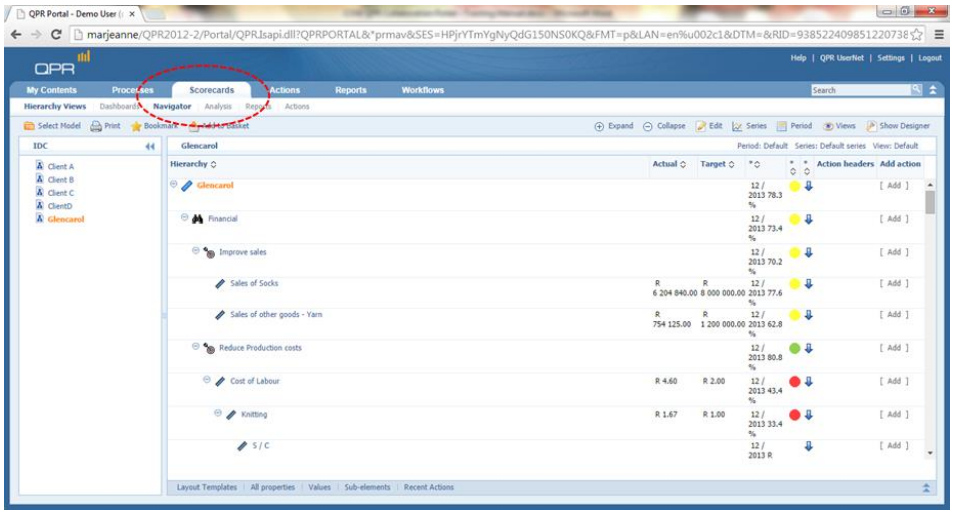
Login Steps:

- Login Name : This will be the same you use to login on your computer.
- Password : This will be the same you use to login on your computer.

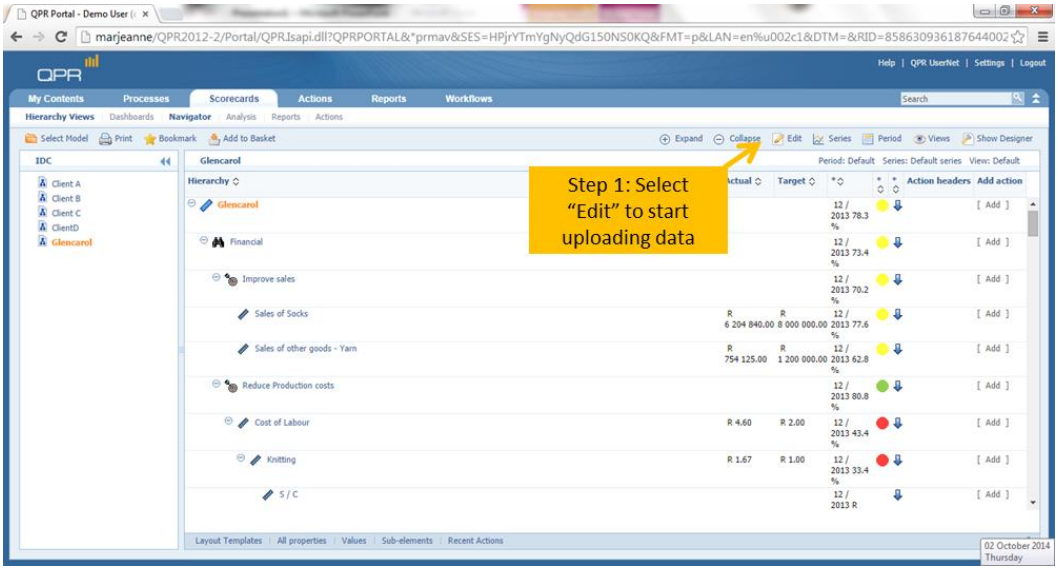
2 Uploading Data

This section provides you with the basic steps on how to upload your Actual Performance in the QPR Portal for the different Key Performance Indicators.

To upload data select the “Scorecard Tab”. Under the scorecard tab select the “Navigator” option.



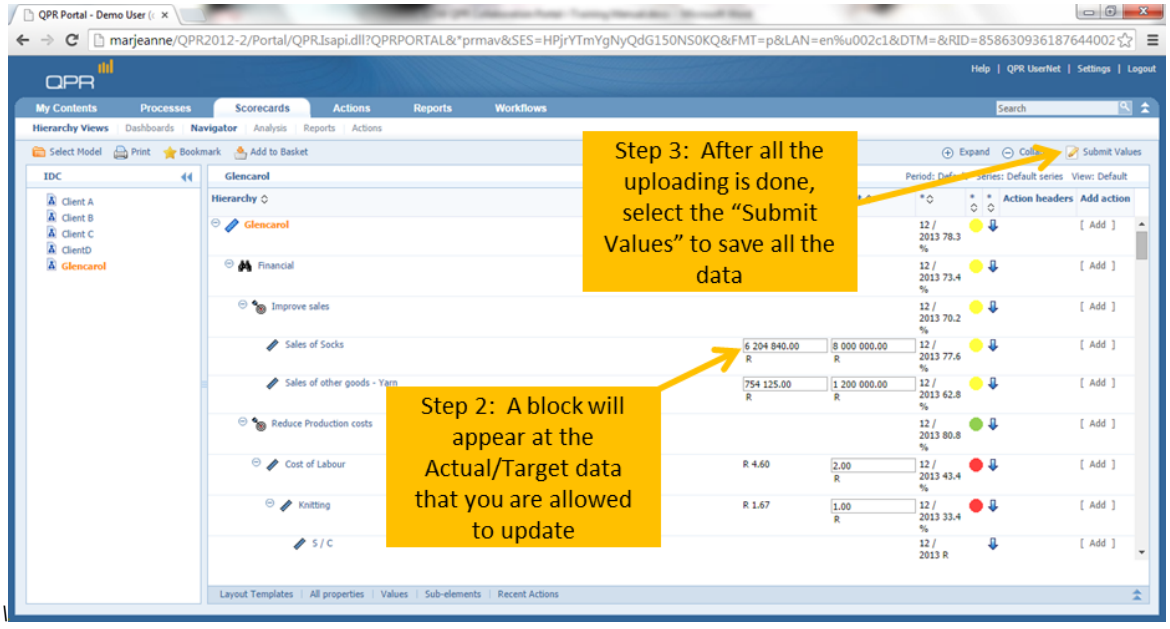
- **Step 1**: In order to upload your actual performance figures, for the specific period, select the “Edit” button at the top right of the screen as seen below.



- **Step 2**: Blocks will appear on all the Elements that you are allowed to upload/change data on. If you can’t edit some of the fields, this can either be one of two things:
    - As a User you only have Viewer Rights, which won’t allow you to update any data on any scorecard.
    - You are trying to upload/change data on a level which has got Formulas in to roll up the data from KPI’s to KPA/Objective/Perspective and Top Element.

  PLEASE NOTE: You will only be allowed to upload data on Key Performance Indicator Levels. (KPI)

- **Step 3**: In order to save all the data that has been uploaded on your actual performance, for the specific period, select the “Submit Values” button at the top right of the screen as seen below.

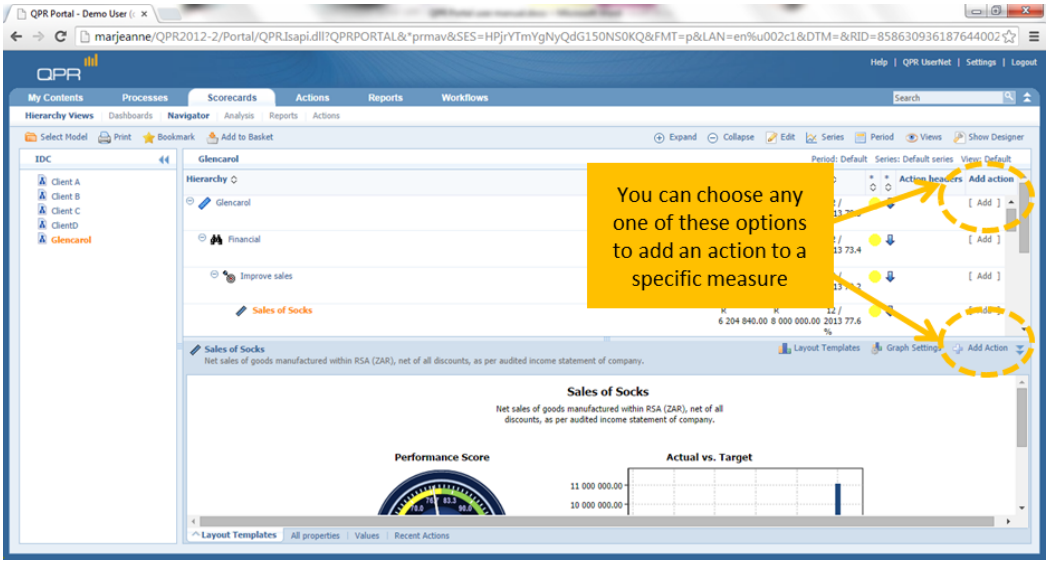


3 Portal Actions

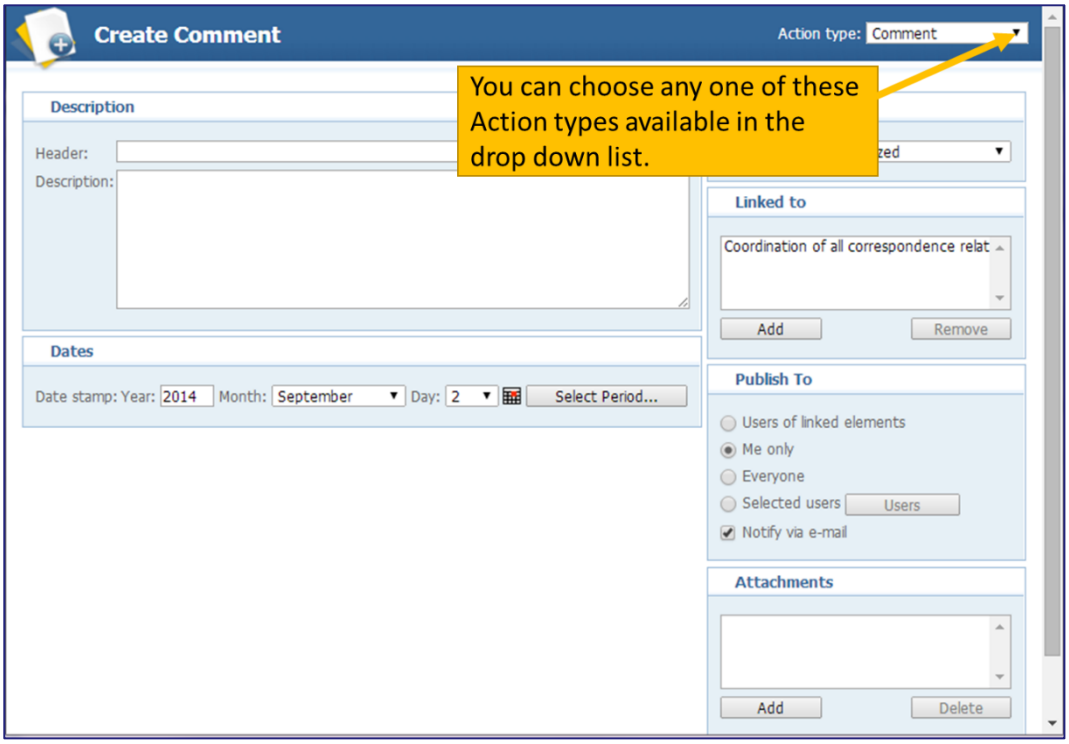
3.1.1 How to Create an Action

For example purposes, an Action Plan will be shown in the screen shots below.

- Select the measure that you need to create a Portal Action on.
- You can either select from the Measure View, the Add Action button or from the Navigator View, as seen below.

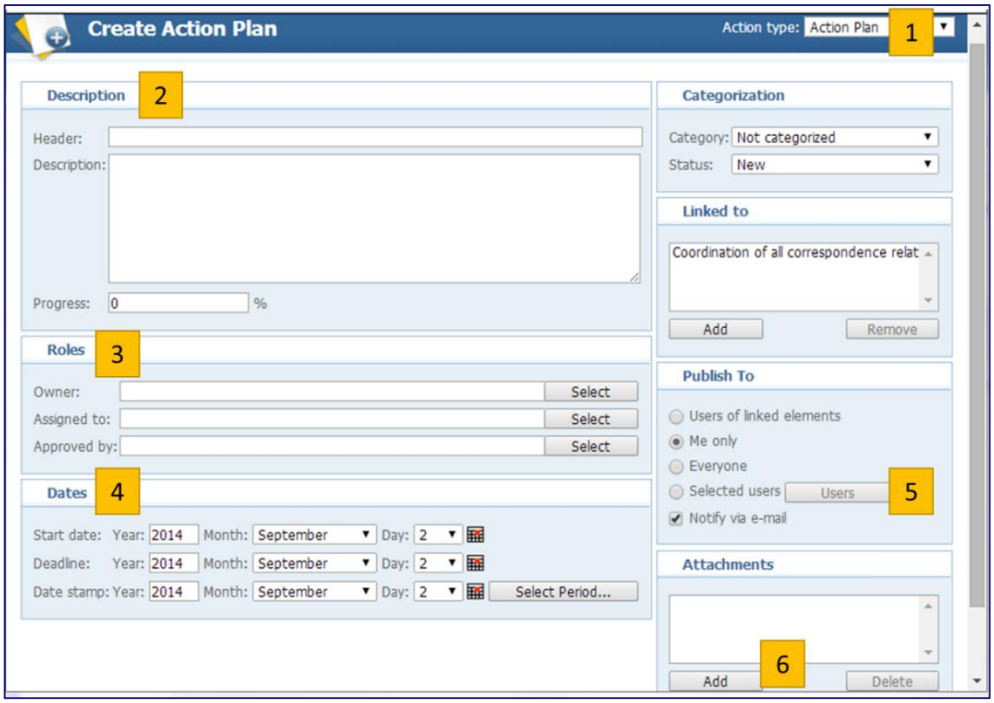


The “Create Comment” screen will open. On the top right-hand corner, select the Portal Action you require from the drop-down list.

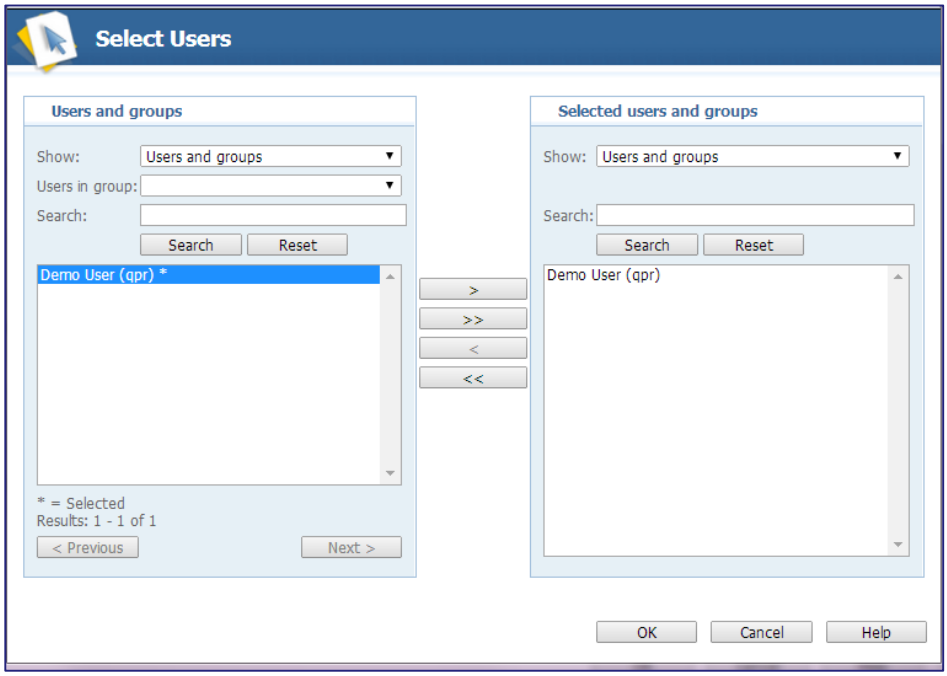


3.1.1.1 Steps on how to Complete the fields on an Action Plan

Please follow the yellow steps to complete the Action Plan.



1. Once the Action, for example “Action Plan” has been selected, the screen will change in order to create the required Portal Actions.
2. **Description:** Type the name of the Action Plan you want to create in the Header Field. Type in a detailed description of the Action Plan you are developing in the Description Field. The Progress Field will only be completed once the Action Plan has been assigned to a person where they can update the progress of the Action Plan.
3. **Roles:** Complete the fields Owner, Assigned To and Approved by, accordingly. Use the “Select” button to search for the appropriate User to fill this role.

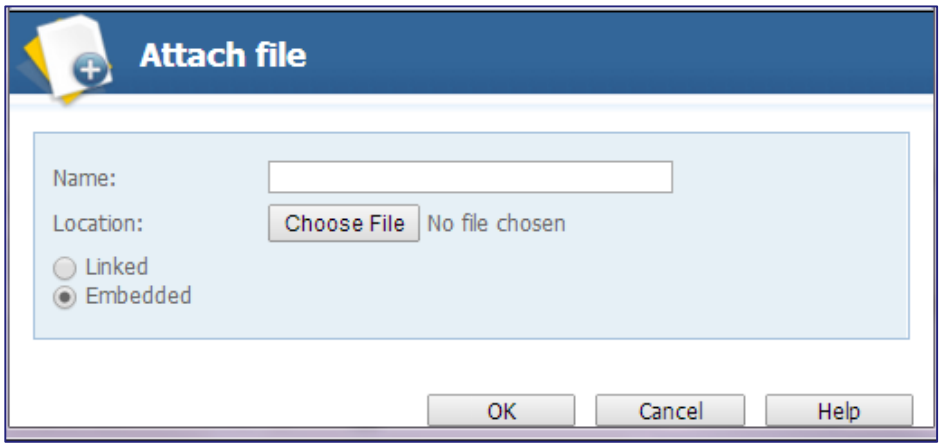


4. **Dates**: Complete the Start date and deadline date of the specific Action Plan. The date Stamp you will only need to complete once the Action Plan has been completed with 100% progress.

5. **Publish To:** The "Publish to" will only be used if you want more people to be able to see the Portal Action you have created. By selecting the "User" button, the "Selected User" will open once again. The Responsible People in the Roles will automatically be selected, because you have assigned this Portal Action to them. The "Notify via Email" check box have to be selected so that QPR can send your Portal Action notification to the selected people.

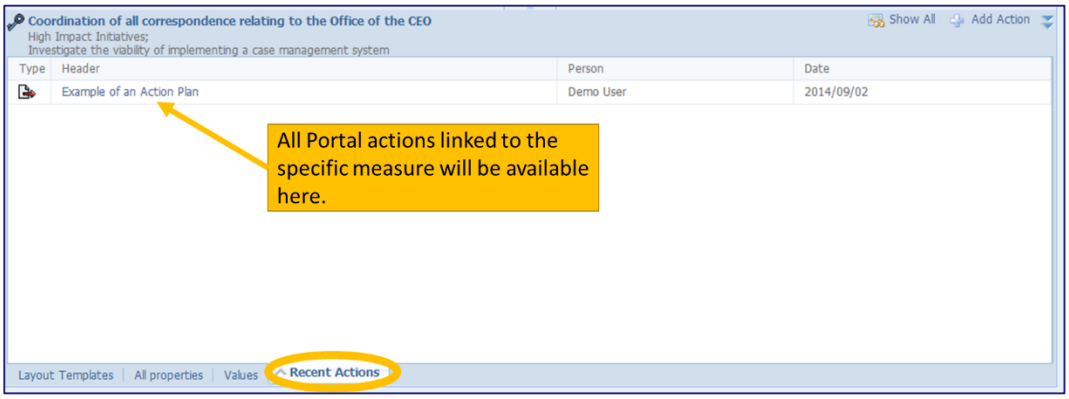
6. **Attachments**: Attach necessary Documentation if applicable to the specified Portal Action.

- Select "Add". The Attach File screen will open.
- Select "Embedded" and click on the "Browse" button.
- Select the file that you want to attach and select "Ok".



7. Select ***OK***.

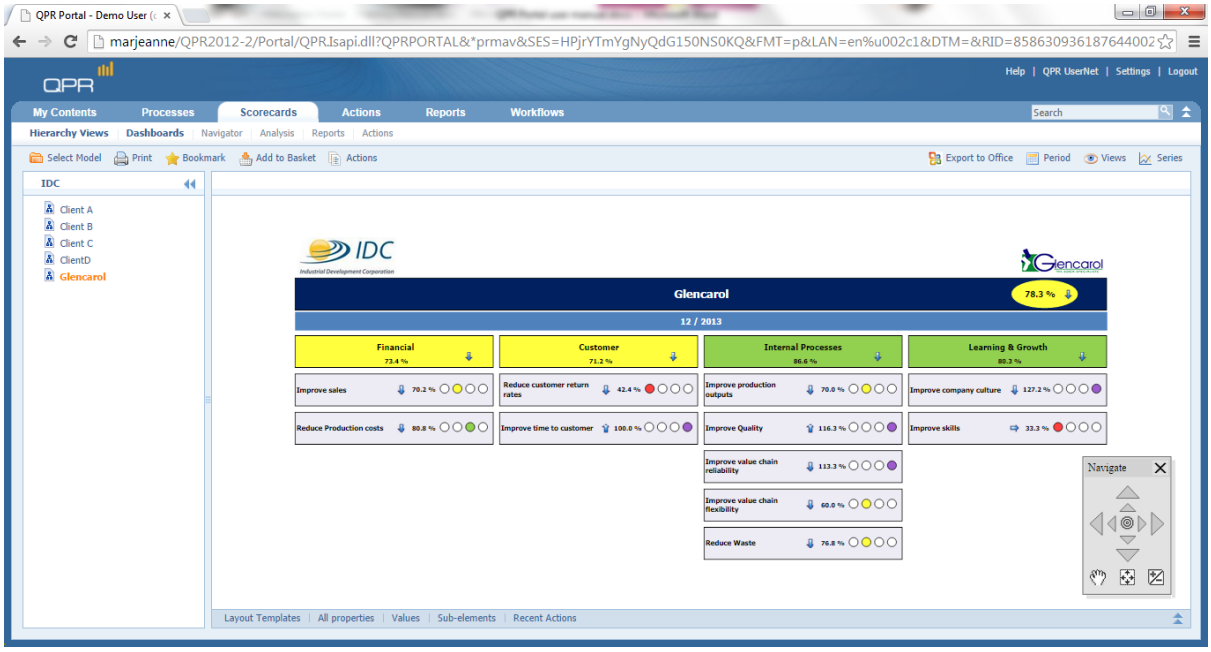
- Once you have uploaded your Portal Actions, you can have a look at all your actions that you have assigned to that specific measure by selecting the Recent Actions tab as seen below.
- **Recent Actions tab:** This view provides you with a list of all the Portal Actions that have been loaded for that specific measure, the person that has loaded them and the date they were loaded on.



4 Viewing performance

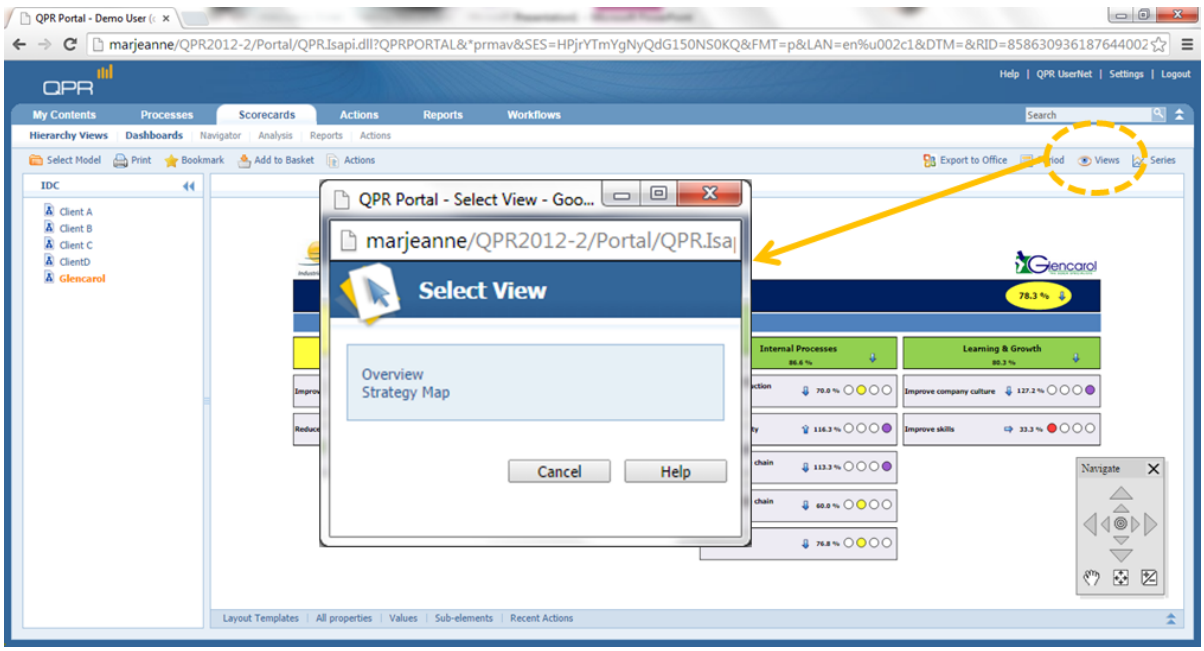
4.1 The Dashboard

To view the dashboard select the “Scorecard Tab”. Under the scorecard tab select the “Dashboard” option.

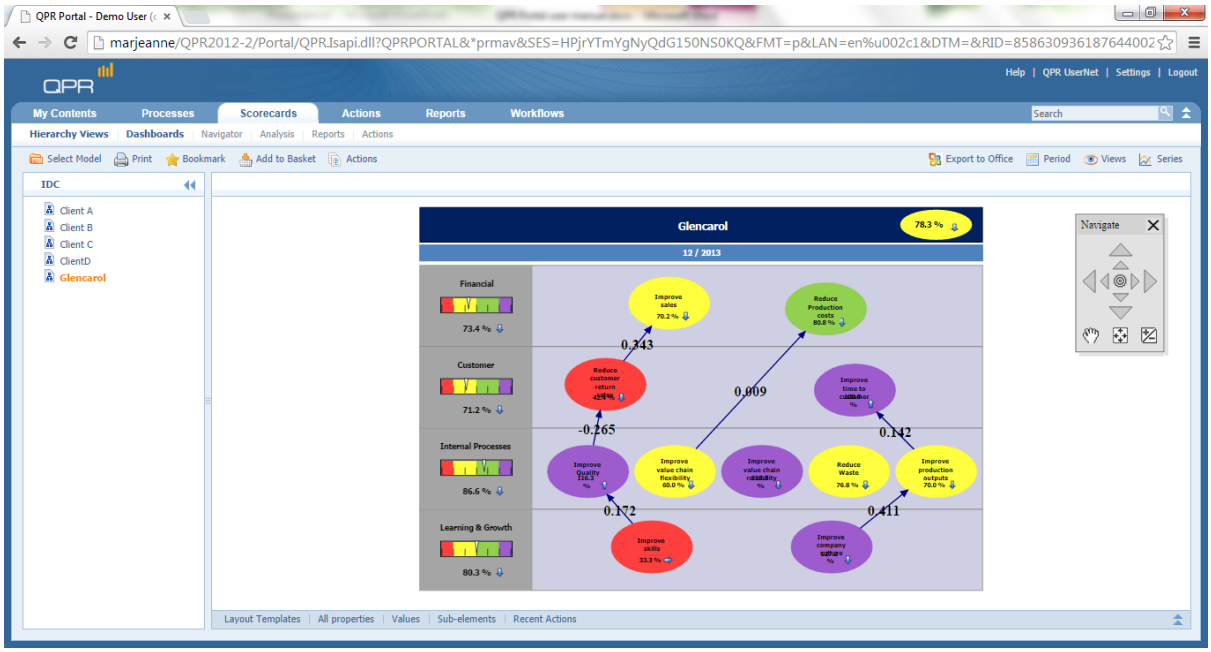


4.2 The Strategy Map

To change the view to the Strategy Map select the “Views” option. Select the Strategy Map link in the Select View dialog box.

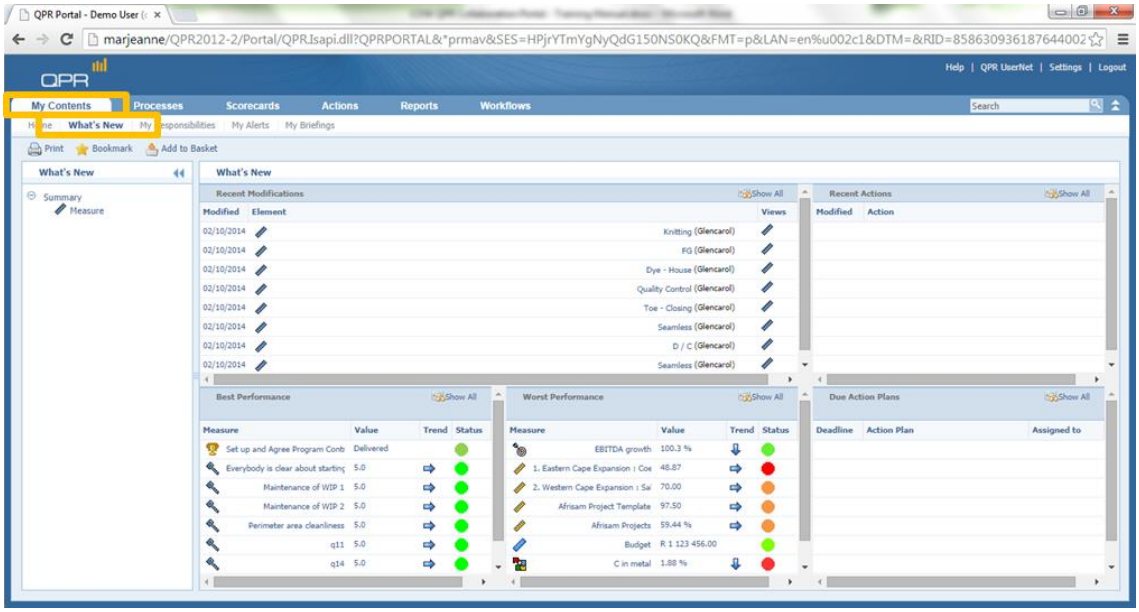


The Strategy Map view will appear.



4.3 What's New Page

The "What's New Page" contains a list of the latest changes together with statistics concerning the performance of a measure.



You can view:

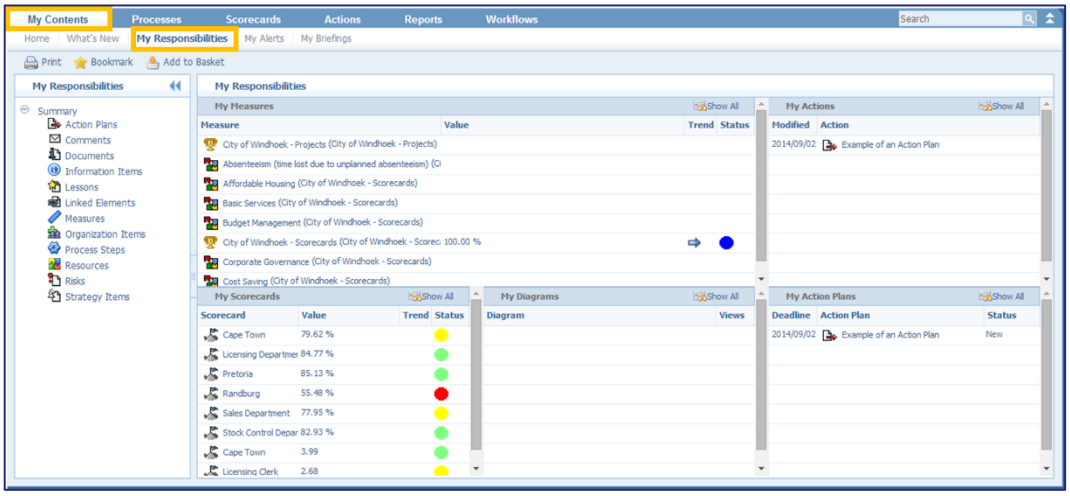
- Recent Modifications – The latest seven changes that was made.
- Recent Actions – The seven latest Actions created.
- Best Performance – Measures performing the best in relation to the previous values.
- Worst Performance – Measures performing the worst in relation to the previous values.
- Due Actions Plans – Actions on the scorecard that are due.

4.4 My Responsibilities Page

The “My Responsibilities Page” allows the user to view all the model elements that you are responsible for.

The following will be available to view:

- My Measures
- My Actions
- My Scorecard
- My Processes
- My Action Plans

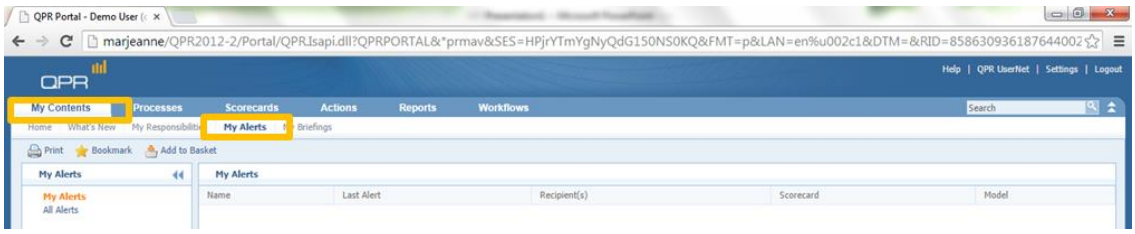


4.5 My Alerts Page

The “My Alerts Page” allow you to view all the e-mail alerts that you received for Actions that have been assigned to you or have been published to you as discussed in **Portal Actions**.

- Name - Name of the alert.
- Last Alert - Time when the alert was last sent.
- Recipient(s) - Recipient(s) of the alert.
- Scorecard - Name of the scorecard the alert belongs to.
- Model - Name of the model the alert belongs to.
-

You can view your alerts you receive by selecting "My Alerts" from the list at the left side of the screen.

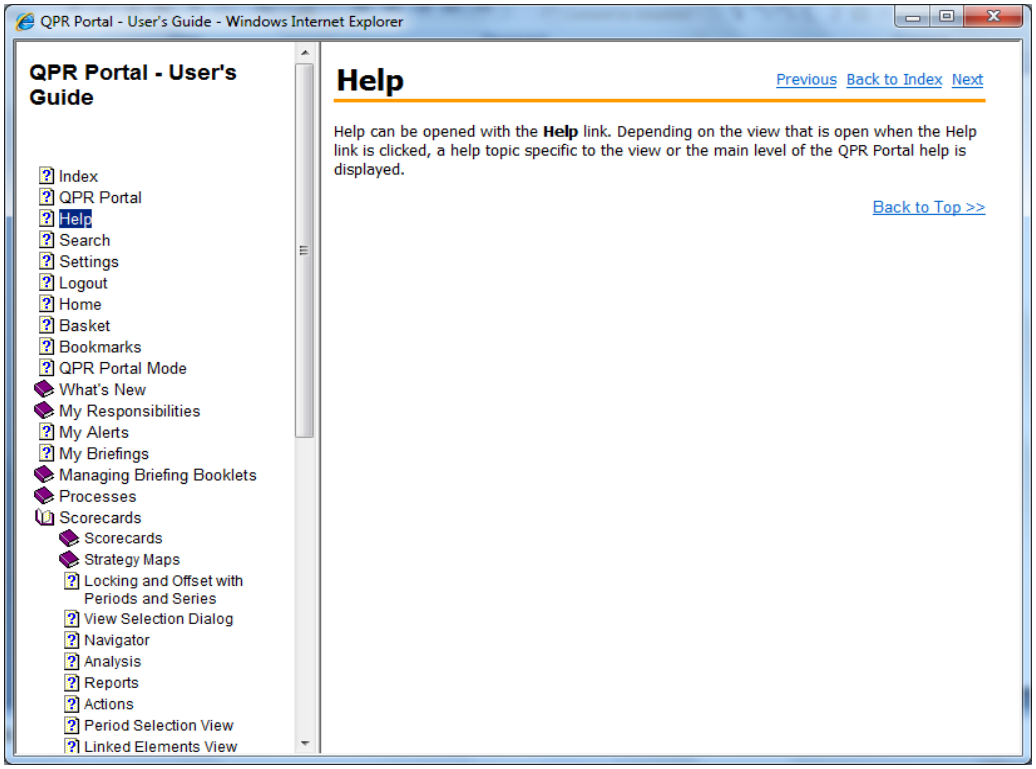


5 Help Functions

5.1 Help

Select the “Help” function from the upper toolbar. The online help function can be used for more detailed introduction of the software and the terms used in it.

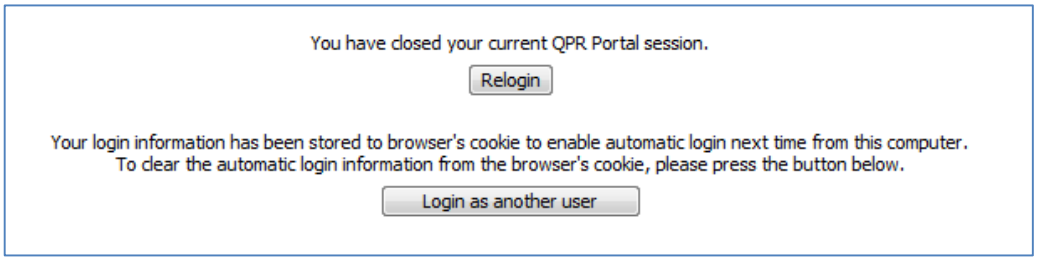
Depending on the view that is open when the Help link is clicked, a help topic specific to the view or the main level of the QPR Portal help is displayed.



5.2 Logout

Select Logout from the upper right corner to log out and end your QPR Portal session.

In the case automatic login using cookies has been enabled, you have the option to clear your login information at this point.



APPENDIX D – Word documentation Programming

[Parameter][Parameter][Parameter]

FORM 3:

PRODUCTION INCENTIVE PROGRAMME

Monitoring and Evaluation Questionnaire

Company Name:

[Property]

Trading Name:

Financial Year End

[Property]

Date of First Funding Approval:

*The **Clothing and Textiles Competitiveness Programme** (CTCP) was instituted by the **Department of Trade and Industry** and the **Industrial Development Corporation** in order to assist firms in the clothing, textiles, leather, leather goods and footwear sectors to increase their competitiveness. The purpose of this questionnaire is to collect data so that the impact of the grant can be assessed, and so that any necessary changes to the programme may be instituted to improve its effectiveness. The continuation of the programme is dependent on this evaluation process, and as such, **your cooperation in this regard is much appreciated**.*

Commented [QPR1]: QPRParameter; ParameterName=Model; Description=Select a Model; Query=[SC].Models; ColumnProperties=Name; MultiSelectableParameter=False; SelectedParametersList=SC.927774691;

Commented [QPR2]: QPRParameter; ParameterName=Scorecard; Description=Select a scorecard; Query=[{Model}].Scorecard; ColumnProperties=Name; MultiSelectableParameter=False; SelectedParametersList=SC.927774691.1275691615;

Commented [QPR3]: QPRParameter; ParameterName=Period; Description=Select a period; Query=[{Model}].Period; ColumnProperties=Name; MultiSelectableParameter=False; SelectedParametersList=SC.927774691.1260468786;

Commented [QPR4]: QPRProperty; FullId={Scorecard}; PropertyName=Name;

Commented [QPR5]: QPRProperty; FullId={Period}; PropertyName=Name;

Section 2 Performance:

Overview

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Strategy Map

Commented [QPR7]: QPRGraph; FullId={Scorecard}; Options=GraphType=StrategyMapView; Template=Strategy Map;

Loop
Loop

1. [Property] [Value]

Loop

1.1. [Property] [Value]

Loop

1.1.1. **[Property]**

Period	Actual	Target	Performance Score
Loop			
[Property]	[Value]	[Value]	[Value]
LoopLoop			

Loop

1.1.1. **[Property]**

Commented [QPR8]: QPRForEach; Query=[{Scorecard}].Topelement; VariableName=TopElement; LoopType=CustomQuery;

Commented [QPR9]: QPRForEach; Query=[{TopElement}].Childobjects; VariableName=Perspectives; SortBy=Order; LoopType=CustomQuery;

Commented [QPR10]: QPRProperty; FullId={Perspectives}; PropertyName=Name;

Commented [QPR11]: QPRValue; FullId={Perspectives}; Series=PSCORE; PeriodId={Period}; ShowUnit=True;

Commented [QPR12]: QPRGraph; FullId={Perspectives}; Options=GraphType=Trend; PeriodId={Period};

Commented [QPR13]: QPRGraph; FullId={Perspectives}; Options=GraphType=RangeColor; PeriodId={Period};

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Commented [QPR16]: QPRValue; FullId={Objectives}; Series=PSCORE; PeriodId={Period}; ShowUnit=True;

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Commented [QPR18]: QPRGraph; FullId={Objectives}; Options=GraphType=RangeColor; PeriodId={Period};

Commented [QPR19]: QPRForEach; Query=[{Objectives}].Childobjects(Criteria="Find(\"Sales of ...

Commented [QPR20]: QPRProperty; FullId={Measures}; PropertyName=Name;

Commented [QPR21]: QPRGraph; FullId={Measures}; Options=GraphType=Graph; PeriodId={PeriodTable};

Commented [QPR22]: QPRForEach; MeasureId={Measures}; VariableName=PeriodTable; SortBy=startdate; LoopType=Periods...

Commented [QPR23]: QPRProperty; FullId={PeriodTable}; PropertyName=Name;

Commented [QPR24]: QPRValue; FullId={Measures}; Series=ACT; PeriodId={PeriodTable}; ShowUnit=True;

Commented [QPR25]: QPRValue; FullId={Measures}; Series=TAR; PeriodId={PeriodTable}; ShowUnit=True;

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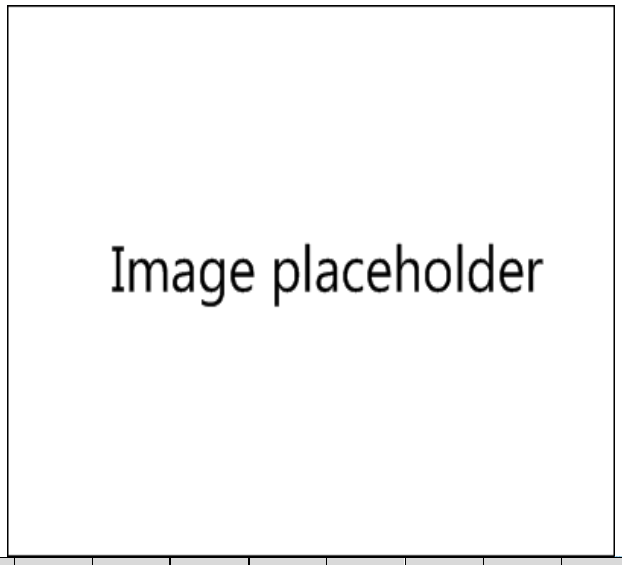
Commented [QPR29]: QPRForEachEnd;

Commented [QPR30]: QPRForEachEnd;

Commented [QPR31]: QPRForEach; Query=[{Objectives}].Childobjects(Criteria="Find(\"Cost of ...

Commented [QPR32]: QPRProperty; FullId={measure2}; PropertyName=Name;



Period	knitting	seamless	Toe-closing	Dye-house	Dye-House dyed product	Pressing	Quality control	Packing	FG	Total cost	Target	Performance score
Loop												
[Property]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]	[Value]
Loop	Loop											
Loop												

1.1.2. **[Property]**

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Commented [QPR37]: QPRValue; FullId={measure2}; Series=SEAMLESS; PeriodId={PeriodTable2}; ShowUnit=True;

Commented [QPR38]: QPRValue; FullId={measure2}; Series=TC; PeriodId={PeriodTable2}; ShowUnit=True;

Commented [QPR39]: QPRValue; FullId={measure2}; Series=DYE_H; PeriodId={PeriodTable2}; ShowUnit=True;

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Commented [QPR35]: QPRProperty; FullId={PeriodTable2}; PropertyName=Name;

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; VariableName=measure3; LoopType=CustomQuery;

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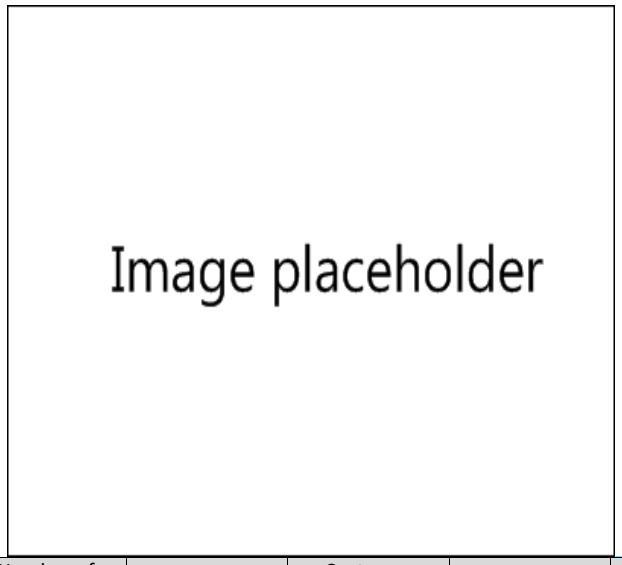
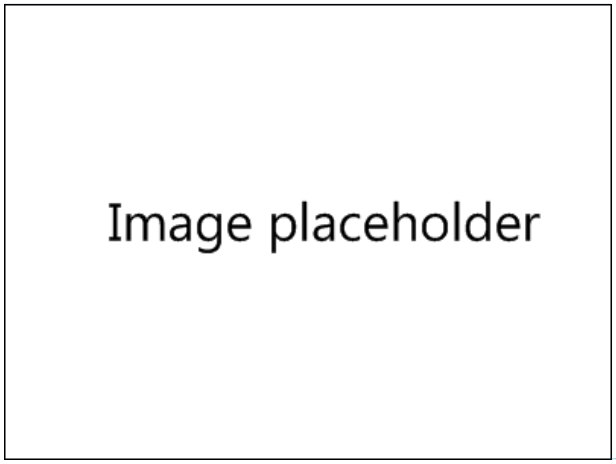


Period	Number of returns	Units sold	Customer return rate	Target	Performance Score
Loop					
[Property]	[Value]	[Value]	[Value]	[Value]	[Value]
LoopLoop					
Loop					
[Property]					



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Commented [QPR57]: QPRValue; FullId={measure3}; Series=ACT; PeriodId={PeriodTable3}; ShowUnit=True;

Commented [QPR58]: QPRValue; FullId={measure3}; Series=TOTAL; PeriodId={PeriodTable3}; ShowUnit=True;

Commented [QPR59]: QPRValue; FullId={measure3}; Series=RETURN; PeriodId={PeriodTable3}; ShowUnit=True;

Commented [QPR60]: QPRValue; FullId={measure3}; Series=TAR; PeriodId={PeriodTable3}; ShowUnit=True;

Commented [QPR61]: QPRValue; FullId={measure3}; Series=PSCORE; PeriodId={PeriodTable3}; ShowUnit=True;

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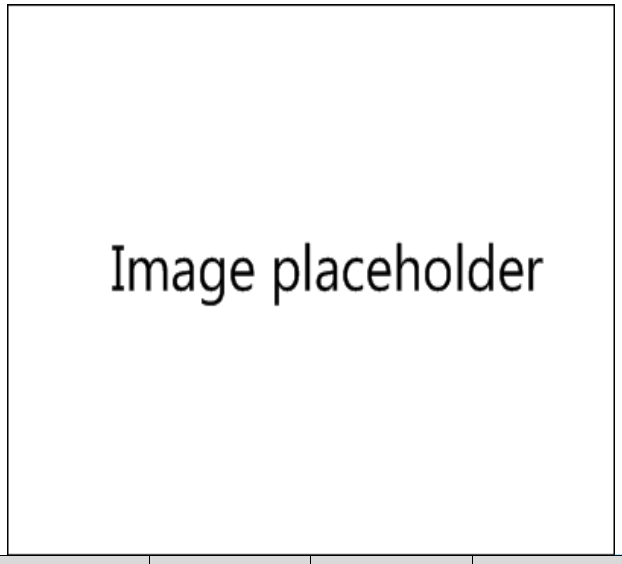
Commented [QPR68]: QPRGraph; FullId={measures4}; Options=GraphType=Graph; PeriodId={PeriodTable4};

Period	Actual	Total	Ratio / Rate	Target	Performance Score
Loop					
[Property]	[Value]	[Value]	[Value]	[Value]	[Value]
LoopLoop					
Loop					
[Property]					



Period	Reworked	Total	Rework Rate	Target	Performance Score
Loop					
[Property]	[Value]	[Value]	[Value]	[Value]	[Value]
Loop					
Loop					
Loop					
[Property]					

Commented [QPR69]: QPRForEach; MeasureId={measures4}; VariableName=PeriodTable4; SortBy=startdate; LoopType=Periods; StartDate=2013-01-01; EndDate=2013-12-31;

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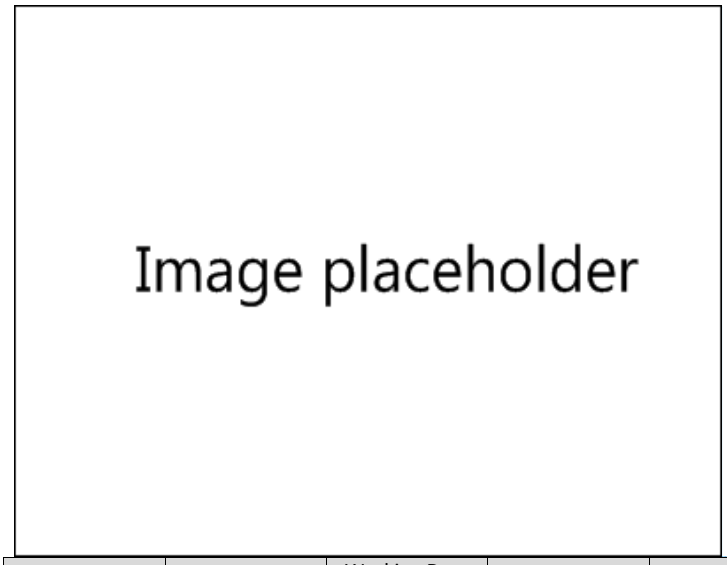
Commented [QPR92]: QPRForEachEnd;

Commented [QPR93]: QPRForEachEnd;

Commented [QPR94]: QPRForEach; ...

Commented [QPR95]: QPRProperty; FullId={measure6}; ...



Period	Total Absentee Days	Working Days per Head Count	Absenteeism Rate	Target	Performance Score
Loop					
[Property]	[Value]	[Value]	[Value]	[Value]	[Value]
Loop					
LoopLoopLoopLoop					

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Commented [QPR99]: QPRValue; FullId={measure6}; Series=ACT; PeriodId={PeriodTable6}; ShowUnit=True;

Commented [QPR100]: QPRValue; FullId={measure6}; Series=DAYS_HC; PeriodId={PeriodTable6}; ShowUnit=True;

Commented [QPR101]: QPRValue; FullId={measure6}; Series=ABS_RATE; PeriodId={PeriodTable6}; ShowUnit=True;

Commented [QPR102]: QPRValue; FullId={measure6}; Series=TAR; PeriodId={PeriodTable6}; ShowUnit=True;

Commented [QPR103]: QPRValue; FullId={measure6}; Series=PSCORE; PeriodId={PeriodTable6}; ShowUnit=True;

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Commented [QPR106]: QPRForEachEnd;

Commented [QPR107]: QPRForEachEnd;

Commented [QPR108]: QPRForEachEnd;

Commented [QPR109]: QPRForEachEnd;

Commented [QPR110]: QPRForEachEnd;

DECLARATION:

I hereby declare that the information in this application is a fair and true reflection of the intended project and that the company has no pending litigation against it, the outcome of which may have a material impact on the company's financial position. I am aware of the fact that the information which I have submitted above will have a material bearing on the adjudication of the application, and if it therefore subsequently appears that any information in the application (together with any addendums) was not correct, or that certain information was omitted, the **CTCP desk** will be entitled to withdraw or amend its approval, and without prejudice to its rights recover any amounts already paid or withhold further payments due.

Questionnaire completed by:

Name: _____ **Position:** _____

Date: _____

APPENDIX E – Word documentation Report

the dti
Department:
Trade and Industry
REPUBLIC OF SOUTH AFRICA

IDC
Industrial Development Corporation

FORM 3:

PRODUCTION INCENTIVE PROGRAMME

Monitoring and Evaluation Questionnaire

Company Name:

Glencarol

Trading Name:

Financial Year End

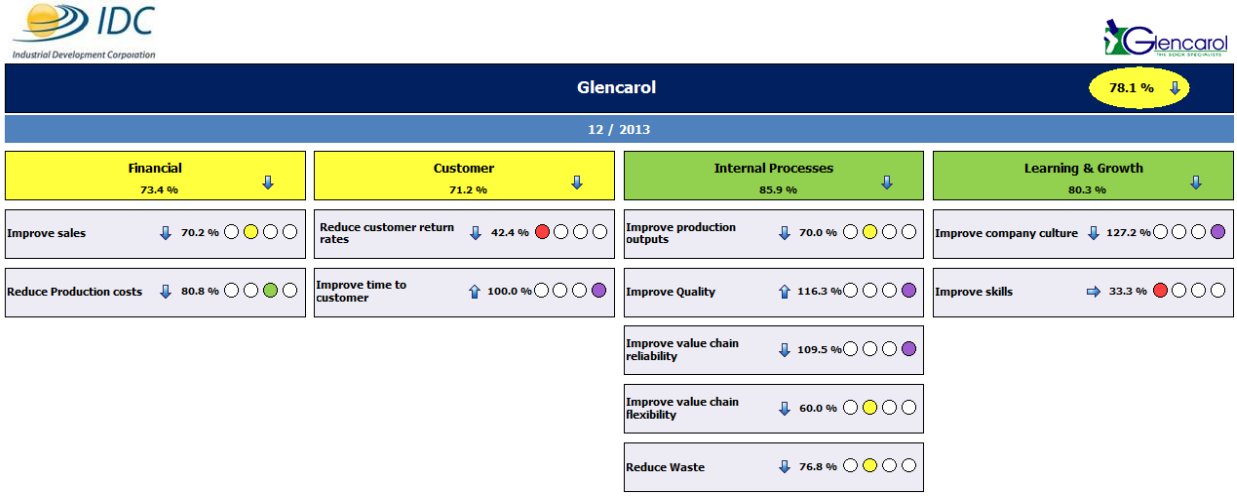
2013

Date of First Funding Approval:

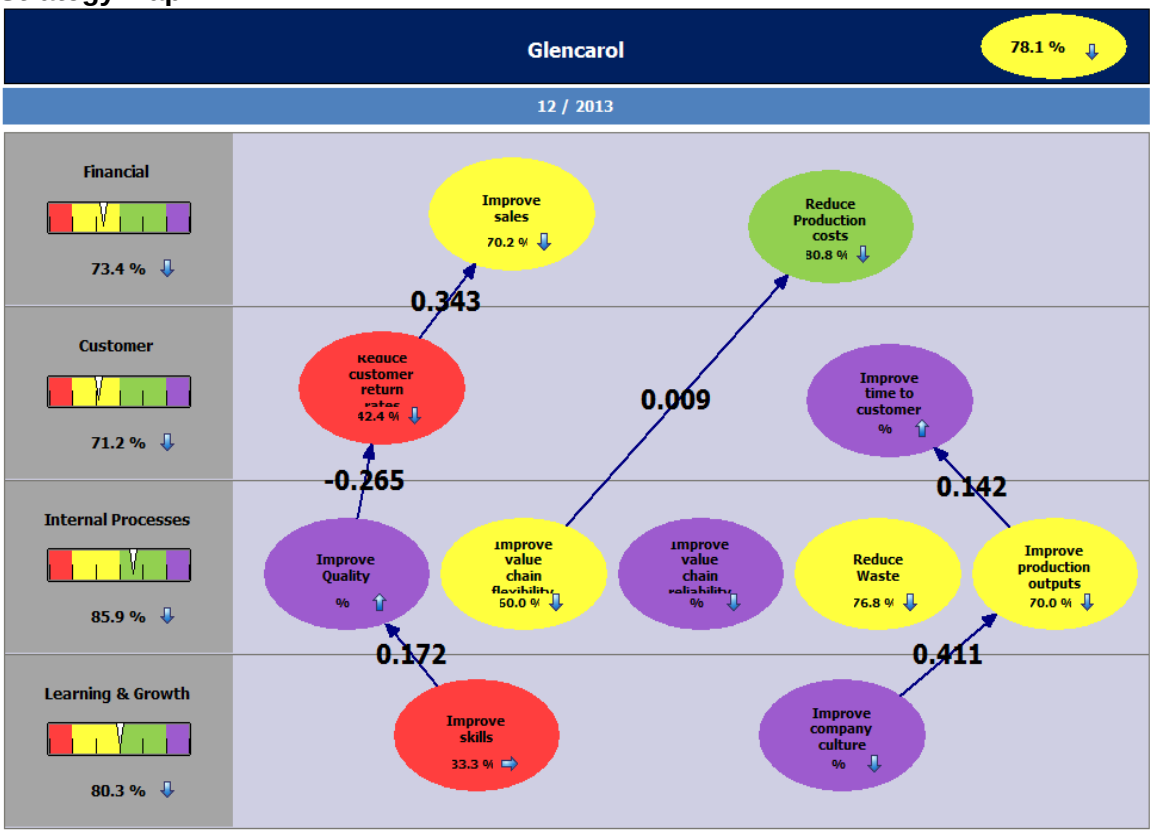
*The **Clothing and Textiles Competitiveness Programme** (CTCP) was instituted by the **Department of Trade and Industry** and the **Industrial Development Corporation** in order to assist firms in the clothing, textiles, leather, leather goods and footwear sectors to increase their competitiveness. The purpose of this questionnaire is to collect data so that the impact of the grant can be assessed, and so that any necessary changes to the programme may be instituted to improve its effectiveness. The continuation of the programme is dependent on this evaluation*

Performance:

Overview



Strategy Map



1. Financial — 73.4 %

1.1. Improve sales — 70.2 %

1.1.1. Sales of Socks

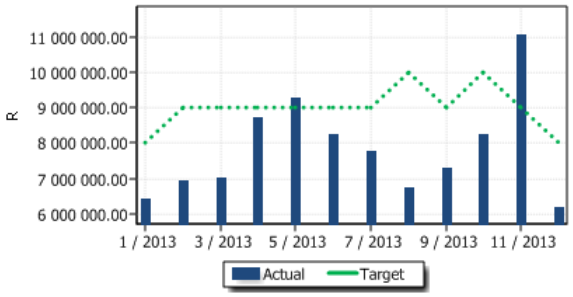
Sales of Socks

Net sales of goods manufactured within RSA (ZAR), net of all discounts, as per audited income statement of company.

Performance Score

12 / 2013

Actual vs. Target



Period	Actual	Target	Performance Score
1 / 2013	R 4 704 734.66	R 5 840 000.00	80.6 %
2 / 2013	R 5 085 323.81	R 6 570 000.00	77.4 %
3 / 2013	R 5 134 989.36	R 6 570 000.00	78.2 %
4 / 2013	R 6 371 776.53	R 6 570 000.00	97.0 %
5 / 2013	R 6 780 935.69	R 6 570 000.00	103.2 %
6 / 2013	R 6 016 829.36	R 6 570 000.00	91.6 %
7 / 2013	R 5 677 418.78	R 6 570 000.00	86.4 %
8 / 2013	R 4 930 949.98	R 7 300 000.00	67.6 %
9 / 2013	R 5 322 718.35	R 6 570 000.00	81.0 %
10 / 2013	R 6 035 549.48	R 7 300 000.00	82.7 %
11 / 2013	R 8 076 619.26	R 7 300 000.00	122.9 %
12 / 2013	R 4 529 533.20	R 5 840 000.00	77.6 %

1.1.2. Sales of other goods – Yarn

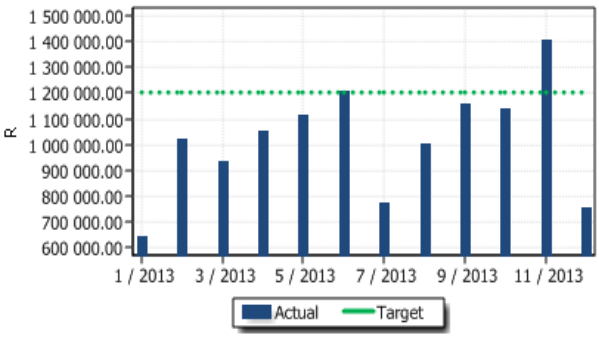
Sales of other goods - Yarn

Net sales of goods manufactured within RSA (ZAR), net of all discounts, as per audited income statement of company.

Performance Score

12 / 2013

Actual vs. Target

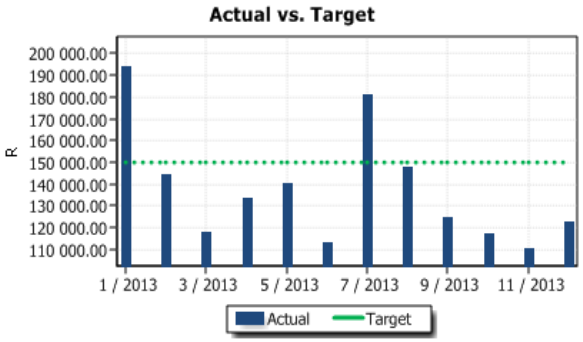


Period	Actual	Target	Performance Score
1 / 2013	R 470 241.18	R 876 000.00	53.7 %
2 / 2013	R 745 584.04	R 876 000.00	85.1 %
3 / 2013	R 683 588.79	R 876 000.00	78.0 %
4 / 2013	R 767 120.50	R 876 000.00	87.6 %
5 / 2013	R 814 519.40	R 876 000.00	93.0 %
6 / 2013	R 883 713.91	R 876 000.00	100.9 %
7 / 2013	R 565 330.25	R 876 000.00	64.5 %
8 / 2013	R 731 313.27	R 876 000.00	83.5 %
9 / 2013	R 847 094.19	R 876 000.00	96.7 %
10 / 2013	R 831 912.38	R 876 000.00	95.0 %
11 / 2013	R 1 026 911.44	R 876 000.00	117.2 %
12 / 2013	R 550 511.25	R 876 000.00	62.8 %

1.2. Reduce Production costs — 80.8 %

1.2.1. Cost of Raw Materials used

Cost of Raw Materials used



Period	Actual	Target	Performance Score
1 / 2013	R 194 037.00	R 150 000.00	70.6 %
2 / 2013	R 144 766.00	R 150 000.00	103.5 %
3 / 2013	R 117 889.00	R 150 000.00	121.4 %
4 / 2013	R 133 726.00	R 150 000.00	110.9 %
5 / 2013	R 140 379.00	R 150 000.00	106.4 %
6 / 2013	R 113 452.00	R 150 000.00	124.4 %
7 / 2013	R 181 059.00	R 150 000.00	79.3 %
8 / 2013	R 148 074.00	R 150 000.00	101.3 %
9 / 2013	R 124 412.00	R 150 000.00	117.1 %
10 / 2013	R 117 421.00	R 150 000.00	121.7 %
11 / 2013	R 110 597.00	R 150 000.00	126.3 %
12 / 2013	R 122 700.00	R 150 000.00	118.2 %

1.2.2. Cost of Labour

Cost of Labour

Net Direct Labor Costs per pair

Performance Score

12 / 2013

Actual vs. Target

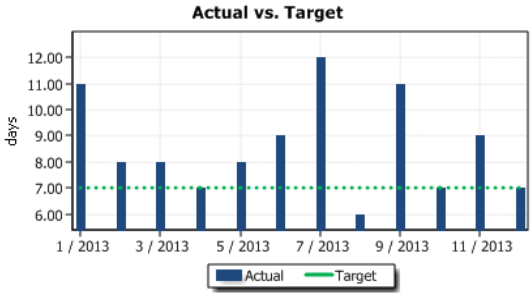
Period	knitting	seamless	Toe-closing	Dye-house	Dye-House dyed product	Pressing	Quality control	Packing	FG	Total cost	Target	Performance score
1 / 2013	R 0.84		R 0.27	R 0.11	R 0.20	R 0.25	R 0.14	R 0.04	R 0.31	R 2.17	R 2.00	92.3 %
2 / 2013	R 0.78		R 0.24	R 0.10	R 0.22	R 0.23	R 0.13	R 0.04	R 0.32	R 2.06	R 2.00	97.2 %
3 / 2013	R 0.81		R 0.23	R 0.10	R 0.22	R 0.24	R 0.14	R 0.04	R 0.32	R 2.10	R 2.00	95.1 %
4 / 2013	R 0.80		R 0.23	R 0.10	R 0.21	R 0.23	R 0.13	R 0.04	R 0.32	R 2.06	R 2.00	97.0 %
5 / 2013	R 0.81	R 1.45	R 0.22	R 0.10	R 0.22	R 0.23	R 0.13	R 0.04	R 0.32	R 3.52	R 2.00	56.9 %
6 / 2013	R 0.82	R 1.70	R 0.22	R 0.10	R 0.23	R 0.23	R 0.13	R 0.04	R 0.31	R 3.79	R 2.00	52.7 %
7 / 2013	R 0.80	R 1.38	R 0.22	R 0.10	R 0.23	R 0.23	R 0.13	R 0.04	R 0.32	R 3.44	R 2.00	58.2 %
8 / 2013	R 0.79	R 1.39	R 0.22	R 0.10	R 0.23	R 0.23	R 0.13	R 0.04	R 0.32	R 3.45	R 2.00	58.0 %
9 / 2013	R 0.82	R 1.57	R 0.22	R 0.10	R 0.24	R 0.24	R 0.14	R 0.05	R 0.34	R 3.72	R 2.00	53.8 %
10 / 2013	R 0.81	R 1.59	R 0.22	R 0.10	R 0.23	R 0.23	R 0.14	R 0.05	R 0.34	R 3.71	R 2.00	53.9 %
11 / 2013	R 0.80	R 1.98	R 0.21	R 0.10	R 0.23	R 0.23	R 0.14	R 0.05	R 0.33	R 4.07	R 2.00	49.1 %
12 / 2013	R 0.83	R 2.44	R 0.22	R 0.10	R 0.23	R 0.24	R 0.15	R 0.05	R 0.35	R 4.60	R 2.00	43.4 %

2. Customer 71.2 %

2.1. Improve time to customer 100.0 %

2.1.1. Customer lead-times

Customer lead-times



Period	Actual	Target	Performance Score
1 / 2013	11.00 days	7.00 days	42.9 %
2 / 2013	8.00 days	7.00 days	85.7 %
3 / 2013	8.00 days	7.00 days	85.7 %
4 / 2013	7.00 days	7.00 days	100.0 %
5 / 2013	8.00 days	7.00 days	85.7 %
6 / 2013	9.00 days	7.00 days	71.4 %
7 / 2013	12.00 days	7.00 days	28.6 %
8 / 2013	6.00 days	7.00 days	114.3 %
9 / 2013	11.00 days	7.00 days	42.9 %
10 / 2013	7.00 days	7.00 days	100.0 %
11 / 2013	9.00 days	7.00 days	71.4 %
12 / 2013	7.00 days	7.00 days	100.0 %

2.2. Reduce customer return rates 42.4 %

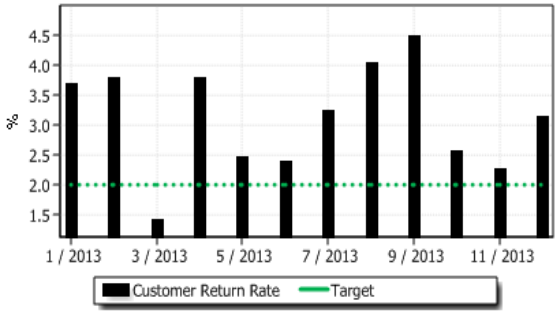
2.2.1. Customer return Rates

Customer return Rates

Performance Score

12 / 2013

Actual vs. Target



Period	Number of returns	Units sold	Customer return rate	Target	Performance Score
1 / 2013	32 542	878 044	3.7 %	2.0 %	14.7 %
2 / 2013	34 270	903 527	3.8 %	2.0 %	10.4 %
3 / 2013	12 378	871 652	1.4 %	2.0 %	129.0 %
4 / 2013	36 192	951 806	3.8 %	2.0 %	9.9 %
5 / 2013	23 079	936 409	2.5 %	2.0 %	76.8 %
6 / 2013	21 978	921 273	2.4 %	2.0 %	80.7 %
7 / 2013	28 606	882 779	3.2 %	2.0 %	38.0 %
8 / 2013	30 275	750 525	4.0 %	2.0 %	-1.7 %
9 / 2013	36 588	814 681	4.5 %	2.0 %	-24.6 %
10 / 2013	24 839	970 408	2.6 %	2.0 %	72.0 %
11 / 2013	32 148	1 412 835	2.3 %	2.0 %	86.2 %
12 / 2013	24 107	764 753	3.2 %	2.0 %	42.4 %

3. Internal Processes 85.9 %

3.1. Improve production outputs 70.0 %

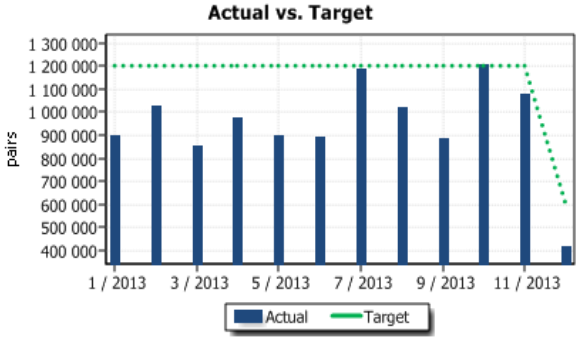
3.1.1. Production output of socks

Production output of socks

Performance Score

12 / 2013

Actual vs. Target

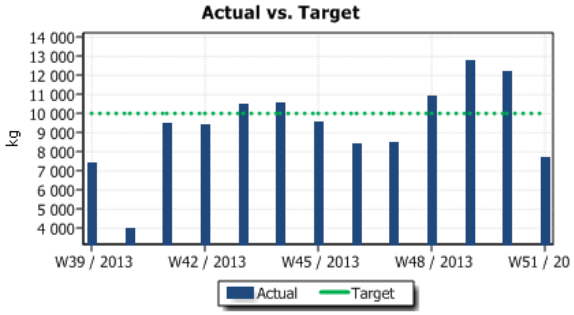


Period	Actual	Target	Performance Score

1 / 2013	901 780 pairs	1 200 000 pairs	75.2 %
2 / 2013	1 029 452 pairs	1 200 000 pairs	85.8 %
3 / 2013	853 497 pairs	1 200 000 pairs	71.1 %
4 / 2013	975 703 pairs	1 200 000 pairs	81.3 %
5 / 2013	899 784 pairs	1 200 000 pairs	75.0 %
6 / 2013	896 499 pairs	1 200 000 pairs	74.7 %
7 / 2013	1 187 029 pairs	1 200 000 pairs	98.9 %
8 / 2013	1 022 099 pairs	1 200 000 pairs	85.2 %
9 / 2013	885 128 pairs	1 200 000 pairs	73.8 %
10 / 2013	1 207 092 pairs	1 200 000 pairs	100.6 %
11 / 2013	1 083 265 pairs	1 200 000 pairs	90.3 %
12 / 2013	420 048 pairs	600 000 pairs	70.0 %

3.1.2. Production output of yarn

Production output of yarn

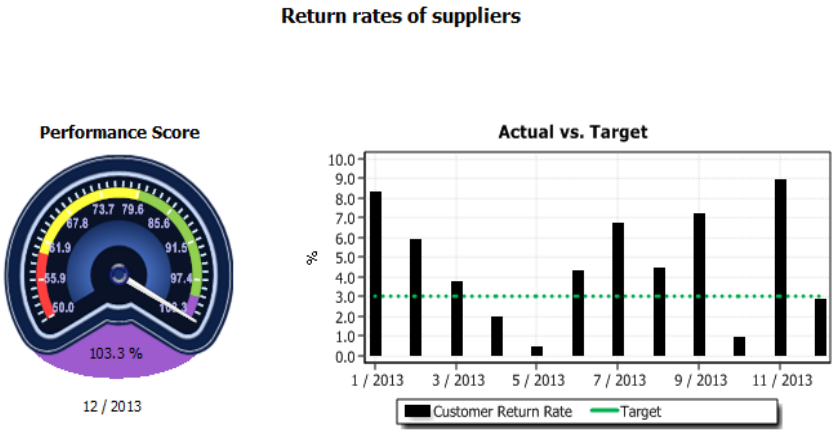


Period	Actual	Target	Performance Score
W52 / 2012			
W1 / 2013	0 kg	10 000 kg	0.0 %
W2 / 2013	0 kg	10 000 kg	0.0 %
W3 / 2013	6 282 kg	10 000 kg	62.8 %
W4 / 2013	8 718 kg	10 000 kg	87.2 %
W5 / 2013	8 480 kg	10 000 kg	84.8 %
W6 / 2013	10 444 kg	10 000 kg	104.4 %
W7 / 2013	6 578 kg	10 000 kg	65.8 %
W8 / 2013	8 265 kg	10 000 kg	82.7 %
W9 / 2013	10 279 kg	10 000 kg	102.8 %
W10 / 2013	10 191 kg	10 000 kg	101.9 %
W11 / 2013	10 790 kg	10 000 kg	107.9 %
W12 / 2013	6 799 kg	10 000 kg	68.0 %
W13 / 2013	5 966 kg	10 000 kg	59.7 %
W14 / 2013	7 577 kg	10 000 kg	75.8 %
W15 / 2013	4 934 kg	10 000 kg	49.3 %
W16 / 2013	10 394 kg	10 000 kg	103.9 %
W17 / 2013	8 940 kg	10 000 kg	89.4 %
W18 / 2013	9 775 kg	10 000 kg	97.8 %
W19 / 2013	5 731 kg	10 000 kg	57.3 %
W20 / 2013	8 497 kg	10 000 kg	85.0 %

W21 / 2013	9 093 kg	10 000 kg	90.9 %
W22 / 2013	9 307 kg	10 000 kg	93.1 %
W23 / 2013	6 739 kg	10 000 kg	67.4 %
W24 / 2013	7 513 kg	10 000 kg	75.1 %
W25 / 2013	8 415 kg	10 000 kg	84.2 %
W26 / 2013	5 665 kg	10 000 kg	56.7 %
W27 / 2013	10 159 kg	10 000 kg	101.6 %
W28 / 2013	9 617 kg	10 000 kg	96.2 %
W29 / 2013	9 021 kg	10 000 kg	90.2 %
W30 / 2013	13 595 kg	10 000 kg	135.9 %
W31 / 2013	10 175 kg	10 000 kg	101.8 %
W32 / 2013	8 662 kg	10 000 kg	86.6 %
W33 / 2013	5 628 kg	10 000 kg	56.3 %
W34 / 2013	7 257 kg	10 000 kg	72.6 %
W35 / 2013	9 959 kg	10 000 kg	99.6 %
W36 / 2013	10 906 kg	10 000 kg	109.1 %
W37 / 2013	7 241 kg	10 000 kg	72.4 %
W38 / 2013	9 289 kg	10 000 kg	92.9 %
W39 / 2013	7 403 kg	10 000 kg	74.0 %
W40 / 2013	3 987 kg	10 000 kg	39.9 %
W41 / 2013	9 469 kg	10 000 kg	94.7 %
W42 / 2013	9 428 kg	10 000 kg	94.3 %
W43 / 2013	10 475 kg	10 000 kg	104.8 %
W44 / 2013	10 552 kg	10 000 kg	105.5 %
W45 / 2013	9 595 kg	10 000 kg	96.0 %
W46 / 2013	8 403 kg	10 000 kg	84.0 %
W47 / 2013	8 485 kg	10 000 kg	84.9 %
W48 / 2013	10 934 kg	10 000 kg	109.3 %
W49 / 2013	12 790 kg	10 000 kg	127.9 %
W50 / 2013	12 262 kg	10 000 kg	122.6 %
W51 / 2013	7 673 kg	10 000 kg	76.7 %
W52 / 2013			

3.2. Improve Quality 116.3 %

3.2.1. Return rates of suppliers

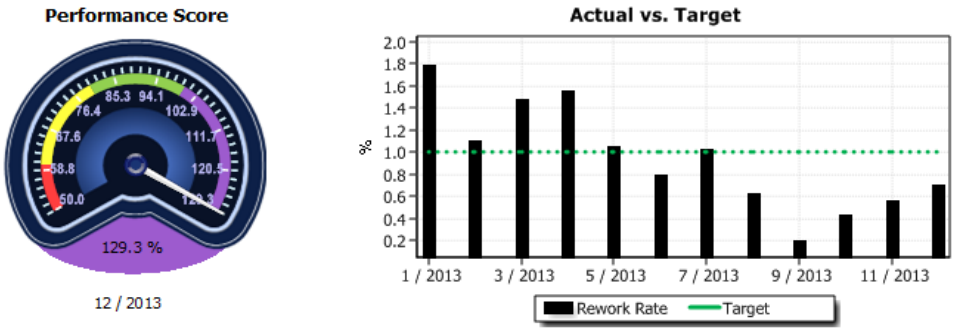


Period	Number of returns	Units sold	Customer return rate	Target	Performance Score

1 / 2013	249	3 000	8.3 %	3.0 %	-76.7 %
2 / 2013	177	3 000	5.9 %	3.0 %	3.3 %
3 / 2013	112	3 000	3.7 %	3.0 %	75.6 %
4 / 2013	59	3 000	2.0 %	3.0 %	134.4 %
5 / 2013	14	3 000	0.5 %	3.0 %	184.4 %
6 / 2013	130	3 000	4.3 %	3.0 %	55.6 %
7 / 2013	203	3 000	6.8 %	3.0 %	-25.6 %
8 / 2013	133	3 000	4.4 %	3.0 %	52.2 %
9 / 2013	217	3 000	7.2 %	3.0 %	-41.1 %
10 / 2013	29	3 000	1.0 %	3.0 %	167.8 %
11 / 2013	268	3 000	8.9 %	3.0 %	-97.8 %
12 / 2013	87	3 000	2.9 %	3.0 %	103.3 %

3.2.2. Internal rework rate

Internal rework rate

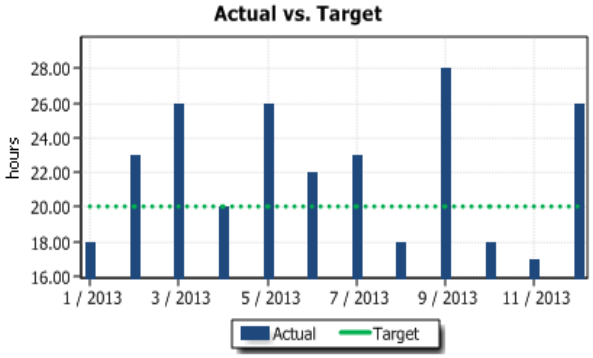


Period	Reworked	Total	Rework Rate	Target	Performance Score
1 / 2013	22 789	1 274 204	1.8 %	1.0 %	21.2 %
2 / 2013	15 446	1 394 829	1.1 %	1.0 %	89.3 %
3 / 2013	17 445	1 174 176	1.5 %	1.0 %	51.4 %
4 / 2013	21 334	1 367 097	1.6 %	1.0 %	44.0 %
5 / 2013	12 445	1 176 630	1.1 %	1.0 %	94.2 %
6 / 2013	7 886	992 432	0.8 %	1.0 %	120.5 %
7 / 2013	14 227	1 387 580	1.0 %	1.0 %	97.5 %
8 / 2013	7 688	1 207 006	0.6 %	1.0 %	136.3 %
9 / 2013	2 133	1 019 819	0.2 %	1.0 %	179.1 %
10 / 2013	5 988	1 359 636	0.4 %	1.0 %	156.0 %
11 / 2013	7 644	1 336 329	0.6 %	1.0 %	142.8 %
12 / 2013	4 663	659 871	0.7 %	1.0 %	129.3 %

3.3. Improve value chain flexibility 60.0 %

3.3.1. Lost production time due to change over

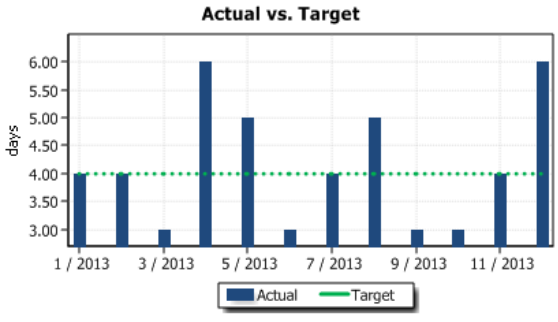
Lost production time due to change over



Period	Actual	Target	Performance Score
1 / 2013	18.00 hours	20.00 hours	110.0 %
2 / 2013	23.00 hours	20.00 hours	85.0 %
3 / 2013	26.00 hours	20.00 hours	70.0 %
4 / 2013	20.00 hours	20.00 hours	100.0 %
5 / 2013	26.00 hours	20.00 hours	70.0 %
6 / 2013	22.00 hours	20.00 hours	90.0 %
7 / 2013	23.00 hours	20.00 hours	85.0 %
8 / 2013	18.00 hours	20.00 hours	110.0 %
9 / 2013	28.00 hours	20.00 hours	60.0 %
10 / 2013	18.00 hours	20.00 hours	110.0 %
11 / 2013	17.00 hours	20.00 hours	115.0 %
12 / 2013	26.00 hours	20.00 hours	70.0 %

3.3.2. Manufacturing throughput times

Manufacturing throughput times



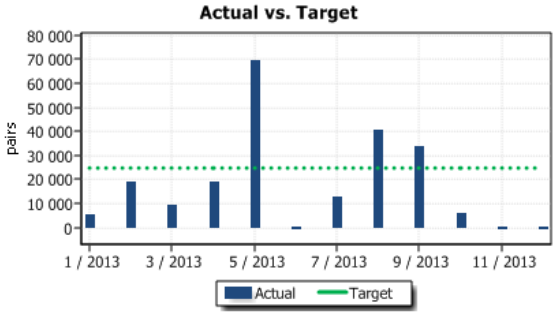
Period	Actual	Target	Performance Score
1 / 2013	4.00 days	4.00 days	100.0 %
2 / 2013	4.00 days	4.00 days	100.0 %
3 / 2013	3.00 days	4.00 days	125.0 %
4 / 2013	6.00 days	4.00 days	50.0 %

5 / 2013	5.00 days	4.00 days	75.0 %
6 / 2013	3.00 days	4.00 days	125.0 %
7 / 2013	4.00 days	4.00 days	100.0 %
8 / 2013	5.00 days	4.00 days	75.0 %
9 / 2013	3.00 days	4.00 days	125.0 %
10 / 2013	3.00 days	4.00 days	125.0 %
11 / 2013	4.00 days	4.00 days	100.0 %
12 / 2013	6.00 days	4.00 days	50.0 %

3.4. Improve value chain reliability 109.5 %

3.4.1. Loss of production due to machine breakdowns

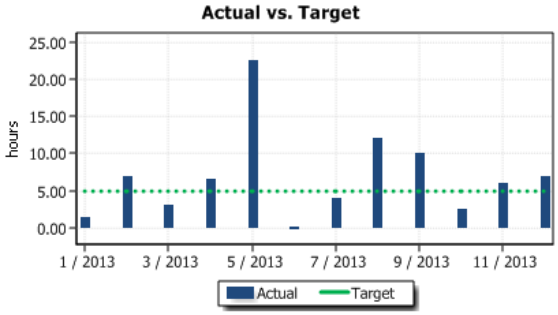
Loss of production due to machine breakdowns



Period	Actual	Target	Performance Score
1 / 2013	5 455 pairs	25 000 pairs	178.2 %
2 / 2013	18 930 pairs	25 000 pairs	124.3 %
3 / 2013	9 684 pairs	25 000 pairs	161.3 %
4 / 2013	18 927 pairs	25 000 pairs	124.3 %
5 / 2013	69 416 pairs	25 000 pairs	-77.7 %
6 / 2013	0 pairs	25 000 pairs	200.0 %
7 / 2013	12 941 pairs	25 000 pairs	148.2 %
8 / 2013	40 461 pairs	25 000 pairs	38.2 %
9 / 2013	34 000 pairs	25 000 pairs	64.0 %
10 / 2013	5 988 pairs	25 000 pairs	176.1 %
11 / 2013	0 pairs	25 000 pairs	200.0 %
12 / 2013	0 pairs	25 000 pairs	200.0 %

3.4.2. Downtime due to machine breakdowns

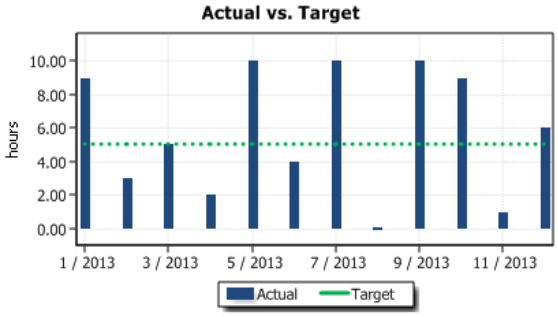
Downtime due to machine breakdowns



Period	Actual	Target	Performance Score
1 / 2013	1.50 hours	5.00 hours	170.0 %
2 / 2013	7.00 hours	5.00 hours	60.0 %
3 / 2013	3.00 hours	5.00 hours	140.0 %
4 / 2013	6.50 hours	5.00 hours	70.0 %
5 / 2013	22.50 hours	5.00 hours	-250.0 %
6 / 2013	0.00 hours	5.00 hours	200.0 %
7 / 2013	4.00 hours	5.00 hours	120.0 %
8 / 2013	12.00 hours	5.00 hours	-40.0 %
9 / 2013	10.00 hours	5.00 hours	0.0 %
10 / 2013	2.50 hours	5.00 hours	150.0 %
11 / 2013	6.00 hours	5.00 hours	80.0 %
12 / 2013	7.00 hours	5.00 hours	60.0 %

3.4.3. Downtime due to materials and people unavailable

Downtime due to materials and people unavailable



Period	Actual	Target	Performance Score
1 / 2013	9.00 hours	5.00 hours	20.0 %
2 / 2013	3.00 hours	5.00 hours	140.0 %
3 / 2013	5.00 hours	5.00 hours	100.0 %
4 / 2013	2.00 hours	5.00 hours	160.0 %
5 / 2013	10.00 hours	5.00 hours	0.0 %
6 / 2013	4.00 hours	5.00 hours	120.0 %
7 / 2013	10.00 hours	5.00 hours	0.0 %
8 / 2013	0.00 hours	5.00 hours	200.0 %
9 / 2013	10.00 hours	5.00 hours	0.0 %

10 / 2013	9.00 hours	5.00 hours	20.0 %
11 / 2013	1.00 hours	5.00 hours	180.0 %
12 / 2013	6.00 hours	5.00 hours	80.0 %

3.4.4. On time and in full delivery to customers

Period	Actual	Total	Ratio / Rate	Target	Performance Score
1 / 2013	Average	113	0.6 %		62.8 %
2 / 2013	Good	142	0.7 %		69.7 %
3 / 2013	Poor	29	0.8 %		79.3 %
4 / 2013	Excellent	186	0.9 %		89.8 %
5 / 2013	Poor	42	0.8 %		76.2 %
6 / 2013	Excellent	167	0.8 %		82.0 %
7 / 2013	Excellent	167	0.9 %		94.0 %
8 / 2013	Average	92	0.8 %		82.6 %
9 / 2013	Excellent	137	0.9 %		86.9 %
10 / 2013	Excellent	170	1.0 %		98.2 %
11 / 2013	Excellent	194	0.7 %		69.1 %
12 / 2013	Excellent	161	1.0 %		98.1 %

3.5. Reduce Waste — 76.8 %

3.5.1. Waste of raw materials

Period	Actual	Total	Ratio / Rate	Target	Performance Score
1 / 2013	2 613 kg	35 849 kg	7 kg	5 kg	54.2 %
2 / 2013	2 618 kg	31 928 kg	8 kg	5 kg	36.0 %
3 / 2013	3 123 kg	48 851 kg	6 kg	5 kg	72.1 %
4 / 2013	3 105 kg	39 681 kg	8 kg	5 kg	43.5 %
5 / 2013	1 238 kg	13 012 kg	10 kg	5 kg	9.7 %
6 / 2013	2 478 kg	32 359 kg	8 kg	5 kg	46.8 %
7 / 2013	3 088 kg	40 280 kg	8 kg	5 kg	46.7 %
8 / 2013	2 397 kg	44 557 kg	5 kg	5 kg	92.4 %
9 / 2013	2 629 kg	39 129 kg	7 kg	5 kg	65.6 %
10 / 2013	2 486 kg	49 052 kg	5 kg	5 kg	98.6 %
11 / 2013	2 128 kg	47 615 kg	4 kg	5 kg	110.6 %
12 / 2013	3 216 kg	52 209 kg	6 kg	5 kg	76.8 %

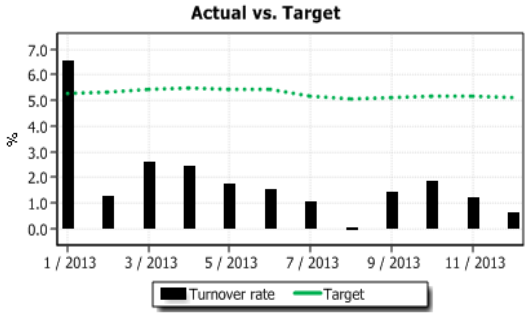
4. Learning & Growth — 80.3 %

4.1. Improve company culture — 127.2 %

4.1.1. Labour turnover rates

Labour turnover rates

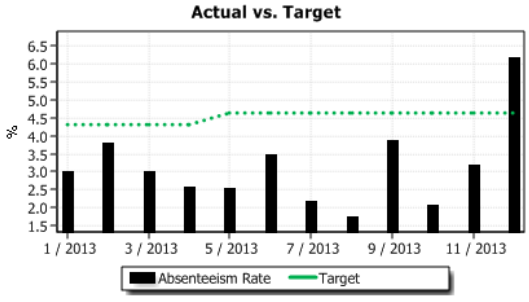
Number of labourers dismissed and resigned during the month (EXCLUDING retrenchments) divided by number of labourers.



Period	Actual	Total	Ratio / Rate	Target	Performance Score
1 / 2013	31	474	6.5 %	5.3 %	76.0 %
2 / 2013	6	471	1.3 %	5.3 %	176.0 %
3 / 2013	12	461	2.6 %	5.4 %	152.0 %
4 / 2013	11	454	2.4 %	5.5 %	156.0 %
5 / 2013	8	458	1.7 %	5.5 %	168.0 %
6 / 2013	7	458	1.5 %	5.5 %	172.0 %
7 / 2013	5	482	1.0 %	5.2 %	180.0 %
8 / 2013	0	495	0.0 %	5.1 %	200.0 %
9 / 2013	7	490	1.4 %	5.1 %	172.0 %
10 / 2013	9	484	1.9 %	5.2 %	164.0 %
11 / 2013	6	484	1.2 %	5.2 %	176.0 %
12 / 2013	3	487	0.6 %	5.1 %	188.0 %

4.1.2. **Absenteeism rate**

Absenteeism rate



Period	Total Absentee Days	Working Days per Head Count	Absenteeism Rate	Target	Performance Score
1 / 2013	258	8 532	3.0 %	4.3 %	129.9 %
2 / 2013	341	8 949	3.8 %	4.3 %	111.6 %
3 / 2013	237	7 837	3.0 %	4.3 %	129.9 %
4 / 2013	233	9 080	2.6 %	4.3 %	140.5 %
5 / 2013	232	9 160	2.5 %	4.6 %	145.2 %
6 / 2013	302	8 702	3.5 %	4.6 %	125.0 %
7 / 2013	244	11 086	2.2 %	4.6 %	152.4 %
8 / 2013	157	8 910	1.8 %	4.6 %	161.9 %

9 / 2013	303	7 840	3.9 %	4.6 %	116.4 %
10 / 2013	221	10 648	2.1 %	4.6 %	155.1 %
11 / 2013	310	9 680	3.2 %	4.6 %	130.8 %
12 / 2013	331	5 357	6.2 %	4.6 %	66.4 %

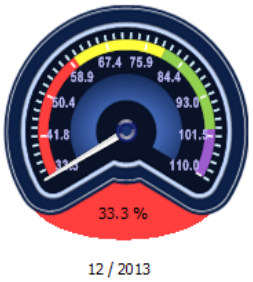
4.2. Improve skills 33.3 %

4.2.1. Total training spend

Total training spend

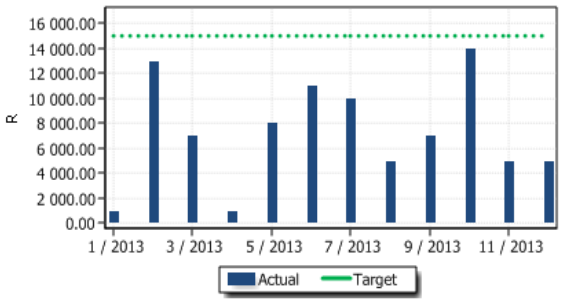
Total amount spent on employee training (ZAR).

Performance Score



12 / 2013

Actual vs. Target



Period	Actual	Target	Performance Score
1 / 2013	R 1 000.00	R 15 000.00	6.7 %
2 / 2013	R 13 000.00	R 15 000.00	86.7 %
3 / 2013	R 7 000.00	R 15 000.00	46.7 %
4 / 2013	R 1 000.00	R 15 000.00	6.7 %
5 / 2013	R 8 000.00	R 15 000.00	53.3 %
6 / 2013	R 11 000.00	R 15 000.00	73.3 %
7 / 2013	R 10 000.00	R 15 000.00	66.7 %
8 / 2013	R 5 000.00	R 15 000.00	33.3 %
9 / 2013	R 7 000.00	R 15 000.00	46.7 %
10 / 2013	R 14 000.00	R 15 000.00	93.3 %
11 / 2013	R 5 000.00	R 15 000.00	33.3 %
12 / 2013	R 5 000.00	R 15 000.00	33.3 %

APPENDIX F – Extract from the IDC's Modelling and Evaluation Questionnaire.

Question 2

Please provide the actual figures for each year regarding Quality.

a) Customer Return Rates

Actual

2009	2010	2011	2012	2013	2014	2015

b) Internal Rework Rates

Actual

2009	2010	2011	2012	2013	2014	2015

c) Return Rates to suppliers

Actual

2009	2010	2011	2012	2013	2014	2015

Question 3

Please provide the actual figures for each year regarding Value Chain Flexibility.

a) Customer Lead-Times

Actual

2009	2010	2011	2012	2013	2014	2015