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Communicating strategic direction,

Strategic objectives as a companies compass

MBA Report

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Management summary

The purpose of this report is to identify ways for Hewlett Packard Services management to communicate a new strategy towards a new organization. This report aims to provide a framework that may help to align the intended and perceived strategy for a new organization, “the New Hewlett Packard”. The research was conducted within the Dutch Hewlett Packard services organization.

The “new HP is the result of the merger between Hewlett Packard (HP) and Compaq
Pre-merger HP was one of the major players in the ICT arena. The company used to be successful because of its focus on product quality. The company was reshaped into three strategic business units; business computing, imaging & printing and embedded & personal systems
Pre-merger Compaq was one of the major competitors of the pre-merger HP. Pre-merger Compaq operated with 4 business units; enterprise computing, Compaq global services, commercial personal computing and consumer.
The main reasons for HP and Compaq management to conduct the merger may have been to be to increase customer reach, achieve economies of scale, maximise supply chain efficiency and increase customer value by making full use of the capabilities of both pre-merger HP and pre-merger Compaq.

In order to manage the merger efficiently and to maintain momentum, the “New HP” defined an adapt-and-go integration strategy. Adapt & Go means that the integration plan provides the structure and constraints for the merger process, but that pragmatic changes are allowed to provide the necessary flexibility. The new HP was structured into four strategic business units; personal systems, imaging & printing, enterprise systems and HP services.
The result of the Adapt & Go strategy is that the management team will be composed of the pre-merger HP and pre-merger Compaq managers.
Generally, a new strategy is designed by applying a strategic planning process. This process is well defined with the New HP. Resulting of the strategic planning process are the strategic objectives. These strategic objectives are used to measure the performance of the company against it’s mission. Strategic objectives are statements of specific outcomes that must be achieved, be specific, measurable, agreed with the actors, realistic and time-based.

The managers from pre-merger HP and Compaq may interpret the strategic objectives in different ways, which leads to the problem statement;
How can HPS senior management deal with the various interpretations of the strategic objectives by middle management?

Mintzberg & Waters's model of intended v.s. realized strategy was used to provide the framework for this report. The part of the strategy that is not realised, is generally replaced by a strategy that emerges from the organisation, the emergent strategy. The part of the intended strategy that is realised is called the deliberate strategy.
Part of the outcome of the strategic execution may be under control of the organisation. For this part of the strategy to be realized as intended, the strategic intentions must have been common to virtually all actors.
This condition prompted the research questions;

1. What is the perceived priority of the strategic objectives?
2. What is the perceived dependency between the strategic objectives?
3. Are the objectives "Common" to all; is there no difference in perception of strategic objectives between the two social groups?

When the new strategy is communicated, there may be resistance from the organization to change direction. On one side stands the long term strategic design that is made by top management with it's strategic intent, which may be a completely different direction than "last years plan". On the other side stands the collective paradigm and idea pool of the managers inside the organisation who may be more committed to the process side of the operations an in better touch with strategic market requirements. There may be a gap between the intended strategy and the strategy as it is perceived by the managers below the senior management team.
This gap may be expressed and measured in terms of objectives, intended v.s. perceived. The gap may cause a deliberate strategy to fall victim of an emergent strategy that is based upon the incorrect assumptions and perceptions, which may result in a realised strategy that fails to fulfil any strategic objective. On the other hand, when the gap is identified and quantified, management may be able to act to close the gap within an acceptable limit

A survey was conducted to measure how the strategic objectives were perceived by the management team and to assess if the opinions of the pre-merger HP and pre-merger Compaq managers were significantly different. The pre-merger HP and pre-merger Compaq managers were assumed to belong to two individual social groups.
The conclusions from the demographic part of the survey was that the composition of both social groups as expressed in the amount of years as an employee and years in current position may be considered similar.

The results from the survey were also used to answer the research questions.
Research question 1; “*What is the perceived priority of the strategic objectives?”*

The conclusion derived from the “Ranking of objectives”: section of the survey is that the two social groups do not appear to have a different opinion in respect to the perception of the priority of the objectives. However, a clear ranking could not be established this way. In the survey section “importance of objectives” the relative importance of the objectives were compared against each other in a pair-wise fashion.
The results from this section implied a priority ranking that could be established by applying logic. The conclusion derived from applying the logic is that the implied priority of the intended priority of the strategic objectives conflicted with the intended ranking.
The intended priority by ranking of the strategic objectives also conflicts with the perceived implied priority of the strategic objectives of each social group. Furthermore, the perceived implied priority of the strategic objectives conflicts between both social groups.

Research question 2 *“What is the perceived dependency between the strategic objectives?”*.
The conclusion derived from results of the sections “Importance of objectives”: and “Strength of relationship between the objectives” of the survey is that the perceptions of both social groups differ from the intended values.
The results of the section “Importance of objectives” indicate a difference in opinion between both social groups of the perceived values.
The results of the section “Strength of relationship between the objectives” indicates that the opinions of both social groups of the perceived values are similar.

Research question 3, "*Are the objectives "Common" to all; is there no difference in perception between the two social groups?"*.
The conclusions derived from the previous research questions show that the strategic objectives are not "common" to all, in all cases there is a significant difference between the intended and perceived values of both social groups. Furthermore, in most cases, the opinions of both social groups conflict. At the beginning of the research, the assumption was made that the strategic intentions have existed as precise intentions in the organisation, articulated in a relatively concrete level of detail. However, when the corporate strategic objectives of HP services were evaluated against the criteria, it was concluded that the objectives did not appear to be specific, measurable, time-based or decisive.

Answering the research questions led to resolving the research problem.
Research problem: *How can HPS senior management deal with the various interpretations of the strategic objectives by middle management?*
Before communicating the strategic objectives, the corporate strategic objectives of HP services would have to be translated to the local level, substantiated and further defined to be decisive, specific, measurable and time-based.
Ranking and the priority by pair-wise comparison would have to be addressed as well, when communicating priorities of strategic objectives. Furthermore, the strength of the relationships between strategic objectives may need special attention when communicating strategic objectives to the organisation.
For this purpose, a reference card was developed that expresses the order and magnitude of the priorities and relationships of the strategic objectives by use of proper wording.

Most respondents expressed a need to discuss and clarify the prioritisation of the strategic objectives, the direct contribution that may be made to the strategic objectives and how the strategic objectives relate to operations. The preferred method would be live and interactive communication, performed by the managers with visible presence of the Executive Manager.
The gap analysis resulted in radar diagrams which show where the gaps exist between the intended and perceived values for each social group. The graphs also show how the gaps are distributed for each social group for each objective. This pattern in the diagrams may be used to explain how the

gaps may be closed for each social group. This way, the intended and perceived strategy may be aligned by means of the strategic objectives.

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Abbreviations

Hereunder the abbreviations are defined that will be used throughout the report.

Abbreviations/Acronyms/ Product Names	**Unabbreviated Word or Term**
AHP	Analytical Hierarchy Process
HP	Hewlett-Packard
HPS	Hewlett Packard Services
ICT	Information Communication Technology
IT	Information Technology
MBO	Management By Objectives
NL	Netherlands
PDCA cycle	Plan, Do, Check Act cycle
QCDE	Quality, Cost, Delivery, Education
SBU	Strategic Business Unit
USA	United States of America

Statement of original authorship

I confirm that this material contained within this assessment is all my own work. Where the work of others has been drawn upon (for example, books, articles, unpublished papers including the work of staff and students) it has been properly acknowledged according to the appropriate academic conventions. I also confirm that I have read and understood the Faculty's statement on academic honesty.

The work has not been previously submitted for a degree at the Kingston University or any other institution.

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1 Introduction

1.1 Background to the research

Pre-merger HP (Classic HP)

Pre-merger Hewlett Packard (HP), founded in 1939, was an American based international Information Communication Technology (ICT) hardware and services vendor. The company held over 540 offices in 147 countries and employed 90,000 personnel through 2001. The revenues over financial year 2001 were 45.2 Billion US$ and the company attained a net profit of 624 Million US$.

Pre-merger HP was one of the major players in the ICT arena. The company used to be successful because of its focus on product quality. Pre-merger HP was applying a differentiation focus strategy. Pre-merger HP was in the process of being reshaped into three strategic business units (SBU's), focusing on the competency fields[1]:

1. Business computing
2. Imaging & Printing
3. Embedded & Personal Systems

The reason for this change was the apparent increasing customer demand for integrated ICT solutions to fulfil the customer's business and daily life needs[2]. The SBU's, which have strong ties to each other, would be more capable to deliver integrated solutions as opposed to product-based solutions.

Pre-merger Compaq (Classic Compaq)

Compaq Computer Corporation (Compaq), founded in 1982, was an American based provider of information technology products, services and solutions for enterprise customers. pre-merger Compaq was one of the major competitors of the pre-merger HP.
Pre-merger Compaq operated in more than 160 countries directly and in 200 countries through a network of authorized Compaq marketing partners. The company employed 63.700 employees

[1] HP Strategy 2001 page 31, Structure

[2] HP Strategy 2001 page 5, Customer needs

through 2001. The revenues over financial year 2001 were 33.6 Billion US$ and the company attained a net profit of 624 Million US$.

Pre-merger Compaq operated with 4 business units

- Enterprise Computing
- Compaq Global Services
- Commercial Personal Computing
- Consumer (Internet ready Personal computer, portables, printers and services)

During the year 2000, pre-merger Compaq split up their Enterprise Solution and Services business unit to Enterprise Computing and Compaq Global Services. These two business units accounted for 50 % of the consolidated revenue of the year 2000. Pre-merger Compaq also felt the demand of their customers to provide integrated ICT solutions[3].

The New HP

The main reasons to embark on the merger may be to increase customer reach, achieve economies of scale, maximise supply chain efficiency and increase customer value by capitalising on the capabilities of both pre-merger HP and Compaq.

The "New HP" aims to deliver the extra customer value by it's global service reach, extensive service portfolio, standards based systems that may be rapidly developed to web, services and the capability to integrate hardware from enterprise systems, imaging and printing systems, to personal and mobile handheld systems.

In order to manage the merger efficiently and to maintain momentum, the "New HP" defined an adapt-and-go integration strategy. This means that the integration plan provides the structure and constraints for the merger process, but that pragmatic changes are allowed to provide the necessary flexibility.

[3] Compaq Annual report 2000

A prime example of the adapt-and-go integration strategy is the structure of the “New HP”. The corporate structure as defined in 2001 was adapted with the addition another Business Unit, HP Services as per the Compaq model.
This would allow the new business unit to operate and grow at it’s own pace, without being constrained by the other business units, since each business unit is responsible for their own product / services development, marketing and sales.

The “New HP” now has four primary businesses; each of which would be among a major technology company in the world if it were an independent business.

- The Personal Systems Group invents the desktops, workstations, notebooks and emerging technologies that help businesses and individuals manage more efficiently and stay in touch in an increasingly interconnected world.
- The Imaging and Printing Group invents the internet connected printers, digital imaging solutions and digital publishing systems that help people communicate, share, learn and play.
- The Enterprise Systems Group invents the servers, storage and software required to build infrastructure solutions that supports the businesses, telecommunications companies and financial institutions of the world.
- HP Services delivers global IT services that helps businesses realise measurable business value from their IT investments through customer support, managed services, consulting and integration and expertise in areas critical to HP’s customers.

The intended benefit for the “New HP’s” customers originates from the ability to integrate “New HP’s” strengths across the businesses to deliver end-to-end solutions that meet the customer’s most demanding requirements.

New HP identified enterprise customer needs[4] where ICT may provide an enabling influence.

- Reach more customers, expand into new markets and grow the business.
- Achieve a better return on the capital invested in the business.
- Increase customer satisfaction and loyalty. It costs less to keep a current customer than attract a new one.
- Optimize their existing assets and the investments made.

Hereafter the "New HP" will be referred to as "HP". Pre-merger HP may be referred to as "classic HP" and pre-merger Compaq as "classic Compaq" in this report.

Strategic planning at HP

HP services (HPS) identified the new strategy for the fiscal year 2003.
HP is known for applying "Management By Objectives" (MBO) to achieve strategic objectives; MBO was institutionalised in the "HP Way".
Anne Livermore, Executive Vice President HP Services, formulated the global HPS strategic objectives:[5]

- ✓ Aggressively grow HPS
- ✓ Implement strong services go-to-market and customer engagement models
- ✓ Expand HP's leadership in the infrastructure services
- ✓ Use HP's strategic partnerships to complement HP's strengths and extend HP's reach
- ✓ Deliver against cost synergies and integration plan for the merger

HP uses Hoshin planning to articulate the strategic course towards the whole organisation. Hoshin planning is HP's own interpretation of Hoshin Kanry (King 1989).
The key to Hoshin Planning is that it brings the total organisation into the strategic planning process, top-down and bottom-up.
Executive management defines the annual policies that subsequent layers in the organisation must use in their Hoshin plans. Furthermore, the executive management defines the annual objectives in the

[4] HP Integration Strategy 2001

[5] Speaker Notes Ann Livermore, Executive Vice President HP Services, at HP's Industry Analyst Conference October 22-24 2002, Santa Barbara, California, USA

four classes of objectives; Quality (Customer related), Cost (financial), Delivery (Processes) and Education (Employees).

These Hoshin plans are cascaded down into the organisation. There the contributors of the level below the previous Hoshin level build their own Hoshin plans and agree the final version with the management level above, before their Hoshin's are cascaded to the level below them.

HP integrated the Balanced Scorecard (Kaplan, R.S., Norton, D.P., 1996) method with the Hoshin planning method (see Appendix 1).

As explained before, HP uses the Hoshin plans to capture and document the strategic planning data from all levels. Then HP uses the Balanced Scorecard Method to monitor performance regularly. For this purpose, HP implemented an automated system that transforms reports into a comprehensive "management performance dashboard". This "dashboard" shows the managers the progress made against the objectives of their level and below and allows a drill-down to the proper level to investigate a specific objective more deeply.

Previous research that was studied included the subjects of strategy development (Mintzberg, 1991 and Johnson & Scholes 2002), strategic human resource management, (Gratton 1999) and measuring company performance against strategic objectives (Shewhart, 1931, Kaplan 1996) and the formation of intended versus realised strategy (Mintzberg & Waters, 1985)

This project intends to research the gap between strategic planning and the human reality (Gratton 1999) at HPS NL

1.2 Research problem

The purpose of this report is to evaluate the gap between the intended and perceived strategy of the HPS management team members and to provide a framework to align the intended and perceived strategy.

The data will be derived from a survey that aims to measure the gap by comparing the priority of, and relationships between, the strategic objectives as intended and perceived.

1.2.1 Problem field

As the legal merger of "pre-merger Compaq" and "pre-merger Hewlett-Packard" into the "new HP" draws towards completion, the organisational structure is defined, managers are appointed, resources are allocated and the strategic objectives are set for each manager. For the purpose of the report, the pre-merger Compaq and the pre-merger HP managers may be defined as two separate social groups.

Summarizing from paragraph 1.1, the following process applies to strategic planning at HP; the Hoshin methodology is embedded in the HP the strategic planning process. The strategic objectives are cascaded down each level. The measures and targets are clearly stated on each Hoshin level to assure the manager knows how to contribute to attaining the higher-level strategic objectives.
The Balanced Score Card method is used to measure the performance.
For this purpose, HP uses an automated tool that captures monthly reports from all managers and provides senior management an overview of the performance against the objectives.

1.2.2 Statement of the problem

The possible gap and difference in perception of strategic objectives between the two social groups was identified during interviews with the executive sponsor, Dick Fens and the author's direct manager, Edward Wolff.
Following these discussions the purpose of the report can be defined as follows;

> *To identify ways for HPS management to communicate a new strategy towards a new organisation*

The main focus of this business research project is to gain a better understanding of communicating the new strategy towards the HP services organisation.
The implicit assumption of the senior managers is that the middle management team understands the strategic objective's priorities. Although the priorities of the strategic objectives may be articulated, there appears to be no formal measure defined in the current strategic planning process to explicitly define the priority order.
This observation leads to the problem statement:

> *How can HPS senior management deal with the various interpretations of the strategic objectives by middle management?*

The problem was solved by measuring values of properties from strategic objectives, to identify a gap between the intended and perceived strategy. This measure was performed for each social group. When the gaps for each property were identified and quantified, this information was used to communicate the strategy to the managers of each social group and show where differences that should be remedied existed.

1.2.3 Research questions

Mintzberg & Waters (1985) argue that for a strategy to be perfectly deliberate, three conditions would have to be satisfied:

1. The intentions must have existed as precise intentions in the organisation, articulated in a relatively concrete level of detail
2. The intentions must have been common to virtually all actors
3. The intentions must have been realised exactly as intended, meaning external forces like political, market, technology, social etc., did not interfere with the implementation of the strategy

The first condition appears to be satisfied; as discussed before, the definition of the objectives, the measures by which the performance against the objectives are evaluated and the timing by which the measures take place are clearly defined by the Balanced Score Card and Hoshin planning method. The second condition would remain; for intentions to be common to all, there should be no gap between the priority and the dependencies between the strategic objectives as intended and perceived. This second condition in the light of the problem statement provokes the research questions.
A difference between the intended and realised strategy may be caused by a gap between the intentions of senior management and the perception of these intentions by middle management. Since the middle managers are selected from the ranks of "pre-merger Compaq" and pre-merger HP", a gap analysis should be made between the two social groups to measure if the intended strategic objectives are indeed "common" to all.
The third condition may be very difficult to satisfy. For example, HP was subject to market forces, technology changes and the social effects of the merger process. This condition may provoke interesting research questions, but fall outside the scope of the research problem.

Research questions

1. What is the perceived priority of the strategic objectives?
2. What is the perceived dependency between the strategic objectives?
3. Are the objectives “Common” to all; is there no difference in perception of strategic objectives between the two social groups?

1.2.4 The business research model

The figure below shows a generally accepted Business Research Model (Johnson & Scholes, 2002).The research is aimed to identify a business problem and via a stepwise process designed to provide more insight, lead to a reporting on the findings.

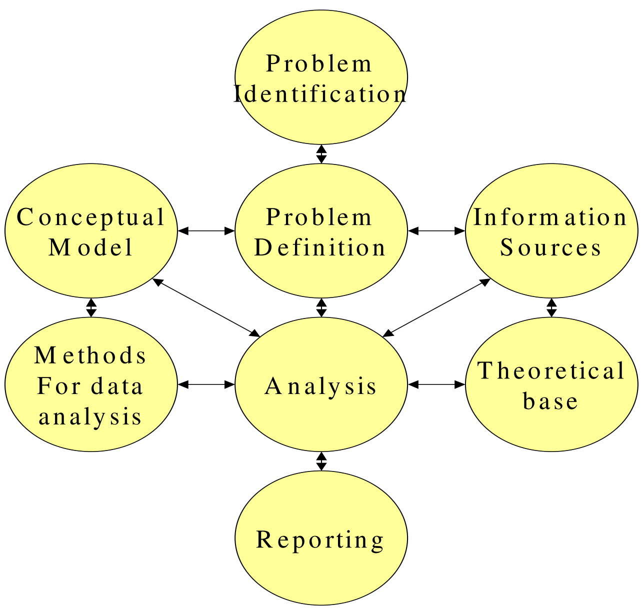

Figure 1 Business research model (Johnson & Scholes 2002)

1.2.5 Problem identification and definition

The steps that initiate the report, the problem identification and problem definition are explored in paragraph 1.2.1 through 1.2.4. The next step is to determine which sources of information may be used to conduct the research.

1.2.6 Sources of information

The determination of the sources of information may be approached using a two-step method. The first step is to consult secondary sources (Jankowicz, 2000) to collect relevant information about the subject and identify issues that were not studied before.

Reading through the literature, the researcher aims to find linkages between the research problem and the wider body of knowledge.

In the second step, the researcher conducts a survey to gather primary data (Jankowicz, 2000) during the empirical phase of the report. For this purpose, different techniques, explored in the first phase may be deployed.

1.2.7 Methods for data collection, analysis and theoretical base

Data collection methods are structured approaches to collect data in order to clarify and aid to resolve the research question and its associated issues. The method should be both economical and effective. For this particular report, the methods of choice are both qualitative and quantitative in nature.

The first (pilot) phase of the data collection for this report uses informal interviews with key reference respondents.

This qualitative method aims to articulate and clarify the business problem.

The data gathered during the interviews is analysed and synthesised. The result of the synthesis is used as input to design the final questionnaire for the survey that will be conducted during the quantitative phase of the project.

The key reference respondents are selected by purposeful sampling, since the project researches the opinions the management team from pre-merger HP and pre-merger Compaq. The selection method is referenced as ‘Taking slices through the organisation’ (Reeves and Harper, 1981)

In this case, a vertical ‘slice’ is taken from the management.

The result from the survey is statistically analysed to answer the research questions.

1.2.8 Theoretical framework

The theoretical basis upon which the research is conducted is presented in the relevant chapters of the report. This way the link between the findings and underlying theoretical framework is maintained throughout the report.

1.2.9 Conceptual model used

The conceptual model intends to show a holistic view to the reader, of the process that is under study. The term is generally defined as "as description of causes and effects that define how changes are expected to occur". Conceptual models do not represent a finished solution. A Conceptual model may be used to hypothesise how the model may react to changes, how the research might be conducted to monitor and how to measure the effect of these changes.

The Conceptual model that forms the basis for this project is depicted below.

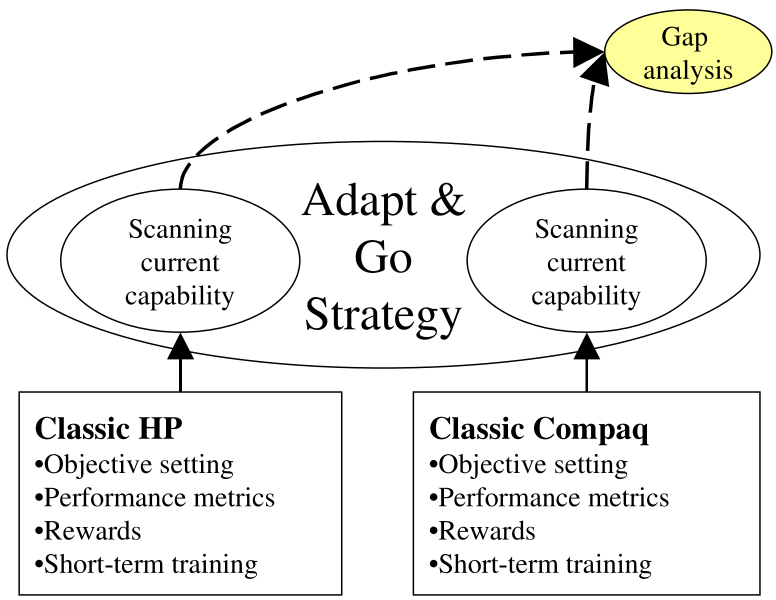

Figure 2 Conceptual model

The conceptual model depicts how through the short term human resource processes (Gratton 1999) the current management team is selected as part of the adapt & go integration strategy.

After the selection, the team comprises of both pre-merger Compaq as pre-merger HP employees, and then the gap between the two groups may be measured

1.3 Justification for the research

The usefulness of this report may be the assessment of how the strategic course of HPS Netherlands is perceived by those individuals who are expected to execute this strategy.

Furthermore, the research may indicate a difference in opinion between the two social groups, the "pre-merger Compaq" and "pre-merger HP" managers. This difference may enable HPS senior management to address each social group in a more effective way to communicate the strategic intentions of HPS Netherlands

1.4 Methodology

Runkel and Mc Grath (1972) identified research strategies based upon whether the researcher chooses to intrude in the operations or not and whether the researcher is interested in universal or specific statements as to the research variables.

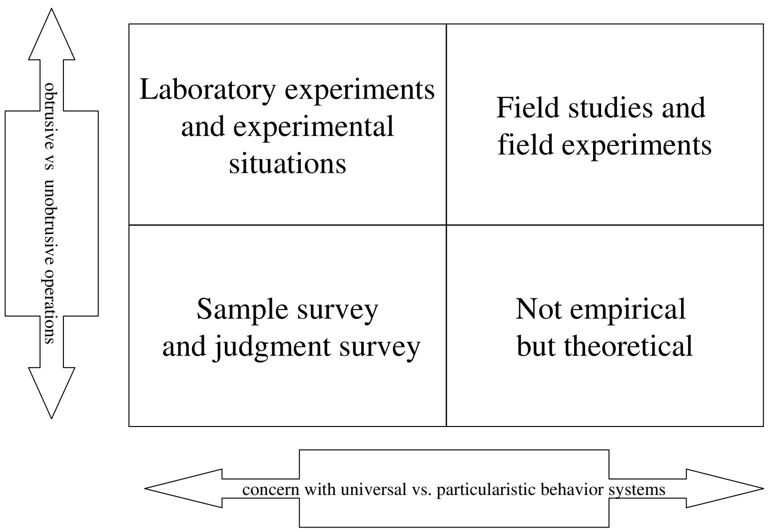

Figure 3 Research Strategies(Runkel & McGrath, 1972)

In this case the author chose not to interfere with operations, excluding experiments from the research strategy.

Furthermore, the gathering of research data is conducted on a relative large group of individuals and the opinion of these individuals is gathered, this excludes a case study as a research strategy.

From the above it may be concluded that a judgement survey within the HPS organisation is the preferred research strategy for this report.

1.4.1 Primary research

The primary research will start with qualitative research to identify the perception about the top five[6] HPS objectives in analogy with the five top objectives defined by Anne Livermore, Executive Vice President HP Services.

Several persons from HP Netherlands will be requested to join the expert group of the project. This group will help to test the survey form for consistency, correct use of language and verify content. When the survey form is completed, the research continues with a survey within the two social groups.

1.4.1.1 Qualitative research

In order to define the structure of the survey, the survey questions, judgemental scale and cover letter, the author will conduct several informal interviews with the executive sponsor of the project.

The executive sponsor will receive regular relevant comprehensive reports of project results.

1.4.1.2 Quantitative research

The questions that result from the qualitative phase will be part of the survey that will be sent out to the respondents of both social groups.

The questionnaire will contain 9-scale answers, based upon the ‘scale of relative importance” (Saaty, T.L;Kearns, K.P., 1985)

The survey will be tested internally prior to the survey execution.

The survey form will be built according to a codebook in which the data items are identified and described. The distribution of the survey form will be electronic in nature. Inside HP the use of E-mail is widely accepted and preferred above other means of correspondence.

The author expects that when a survey is easily accessible and easy to do, the chances of a response may well increase. E-mail also offers the possibility to offer automated kind reminders when time progresses, possibly increasing the response even more.

The results from the returned survey forms will be gathered by the author and processed through SPSS.

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[6] Speaker Notes Ann Livermore at HP's Industry Analyst Conference October 22-24, Santa Barbara, California

1.4.2 Secondary research

The secondary research will include the comprehensive review of related literature on strategic planning, strategic performance and strategy implementation.

Work already done and documentation of similar research projects may be drawn upon. Where possible, relevant information available on the HP Intranet will be used and included in the project.

1.5 Outline of the report

The report starts with the introduction of the pre-merger companies; Compaq and HP, which were merged to form “The New HP”. The research problem is introduced within its context and the business research model is presented. The aim, objective and scope of the report is described and the first chapter ends with a conclusion.

The second chapter describes the literature review of the parent disciplines and immediate disciplines that relate to the research questions. After the conclusion of chapter two, chapter three describes and justifies the methodology that is employed. The research questions and hypotheses are presented. Furthermore, the survey methodology is described and some ethical issues concerning the research are explored.

In chapter four the analysis of data in relation to the hypotheses is conducted by using the survey form as a guideline.

In Chapter five the conclusions and implications are presented in relation to the research questions and the research problem. At the end of chapter five, implications for policies and practice are explored before an introduction of further study concludes this chapter.

1.6 Definitions

Definition	Description
Hoshin Kanry	Strategic control system developed in Japan, based upon involving the whole organisation in the strategic planning process, both top-down and bottom-up.
Hoshin planning	The approach of Hoshin Kanry by Hewlett Packard
Balanced scorecard	Strategic management system that translates the an organisation's mission and strategy into a comprehensive set of performance measures.
SMART	Acronym for Specific, Measurable, Agreed, Realistic and Time-based. Generally used to test if objectives are defined well enough to fit their purpose

1.7 Delimitations of scope and key assumptions

In this section, the boundaries of the research problem will be made explicit.
The executive sponsor, the direct manager and peer colleagues of author will invited to participate in the research project. Their roles will be to identify the respondent population, review the survey questions and report results.

1.7.1 Aim

As defined in paragraph 1.2, the purpose of this report is to evaluate the gap between the intended and perceived strategy of the HPS management team.

1.7.2 Objective

The objective is to provide a framework that may help to align the intended and perceived strategy for a new organisation.

1.7.3 Scope

In this report the strategic position of Hewlett-Packard, the strategic choices on the basis of the strategic position is accepted as given and therefore not analysed.
The scope of this project is limited to the Dutch HPS organisation. The Dutch HPS organisation operates as a division within HP Netherlands and may be considered as one coherent organisational structure.

1.8 Assumptions

The main assumption of this report is that the intended strategy is already defined, and that the "business priorities" as expressed by the Executive Vice President of HP Services represent the strategic objectives for the year 2003.

The second assumption is that the opinion of the executive sponsor represents the intended strategy for HPS Netherlands. The executive sponsor is the most senior business unit manager of HPS in the Netherlands. The priority of the objectives that will be used for this report is defined by ranking.

The assumption is made that the strategic intentions of the "New HP" exist as precise intentions in the organisation, articulated in a relatively concrete level of detail, by virtue of the strategic planning process.

The project may evaluate measured differences between respondents of both companies in relation to the survey questions, but no other influence will be studied.

1.9 Conclusion

The basis for the research was laid in this chapter. The research problem was introduced, together with the research questions and hypotheses.

The research was justified, the definitions and terms presented, then the methodology was concisely described and justified. Finally, the report was outlined, and the boundaries were identified.

With the basis presented, the report may proceed with a detailed description of the research.

2 Literature review

The aim of this literature review is to build a theoretical foundation upon which the research is based. The analytical model used is to take a top down approach of the different disciplines in the direction of the research problem. This way, the author aims to clarify the rationale of the selected approach to the research. Part of the literature review was to find support for a methodology that would be able to assess the priority and relative importance of measurable and intangible strategic objectives

2.1 Introduction

Generally, a strategy is formulated, planned and executed by defining the Mission, Objectives, Strategy, Tactics. The mission states what an organisation aims to do and achieve. The objectives are specific performance goals formulated in terms of purpose of the organisation and the area in which it operates. Strategy would be the means the organisation aims to achieve these set objectives. Finally, the tactics are the actions an organisation undertakes to achieve its strategic objectives.

2.2 Parent fields

Johnson & Scholes (2002) defines strategy as "the direction and scope over the long term, which achieves advantage for the organisation through its configuration of resources within a changing environment and to fulfil stakeholder expectations".

The direction and scope are expressed in the strategic intent and defined by the goals, limited by strategic policies. These goals and policies are part of the corporate strategy that is cascaded to a lower level.

The advantages that a company may have, is based upon the assumption that there is always an alternative for its customers, partners and members. There should be a significant advantage that an organisation has over its competitors to add more value than its competitors can.

Porter (1985) identified two basic types of competitive advantages, based upon the creation of value against a cost; cost leadership and differentiation. Porter argued that superior value as experienced by the customer can be obtained by offering a lower price for equivalent benefits, or unique benefits that more than offset the higher price. A sustainable competitive advantage would be unique and difficult to copy.

Prahalad and Hamel (1990) identified competences, which would enable managers to design and implement differentiation strategies. A portfolio of core products would constitute the business of a company. These core products represent combinations of different core competencies and are the result of a learning process of the organisation. The coordination and integration of skills, technology and cross boundary communication within the organisation form the basis of the competitive advantage. This advantage may be difficult to copy, since the basis of the advantage may not be obvious.

Gratton (1999) argues that the competitive advantages are delivered and maintained through people. Although the prime sources of competitive advantage are access to financial resources and /or the use of technology are still necessary, they are not sufficient.

Additionally, a company needs people and processes capable to deliver customer delight or rapid innovation, which will place the company in front of their competitors.

On the configuration of resources, Mintzberg (1979) argues that organisations are composed of an operating core, the top level of management (Strategic apex) middle management, a management that designs the systems and work processes (techno structure) support staff and organisational culture (ideology).

Johnson & Scholes (2002) argue that that strategy can be seen as the matching of the resources and the activities in the environment in which it operates. The search for the “strategic fit”(Prahalad & Hamel 1994) is a process of developing strategy by adapting competences and resources, to position the organisation correctly to take advantage of business opportunities. This is called “environment led fit”. HP supports this strategy development process developing the strategic business units.

Building on, or “stretching an organisation is a process of leveraging resources to improve value conversion by differentiation based on competences. The object is to create additional value for the current market and / or create new markets.

The search for the strategic “fit” or “stretch” takes place in a quickly changing environment; Gratton (1999) argues that people processes play an increasingly important role within the complex organisational architecture. Especially of embedding the capacity to transform a company may be a key enabler to sustain competitive advantage. HP makes full use of the opportunities the Hoshin process offers to develop “resource led” strategic fit and to build internal stakeholder support.

Stakeholders may be anyone who has vested interest and power in an organisation. Barnard (1938) suggested that customers, employees of all grades, suppliers and shareholders might all be considered as contributors to the success of the organisation. The organisation must provide sufficient value to each stakeholder so the stakeholders may continue to contribute.

Johnson & Scholes (2002) argue that strategy may, in some respects, be the reflection of the attitudes and beliefs of the stakeholders. The values and the expectations of the shareholders may have their effect.on the mission statement. The mission statement would indicate value as seen in the light of each shareholder's expectation and values.

As a result of the stakeholder effect on the strategic planning process, it may be clear that strategies exist at a number of levels within any organisation, ranging from corporate to personal level.

Lorange (1980) and Scholes (2002) assume three levels for a strategic hierarchy; a corporate or group level, a business unit / division level and an operational /functional level.

Lorange (1980) argues that the main task of the corporate level strategy is to develop a favourable business portfolio. The portfolio is built balancing the properties of the business opportunities such as profit, risk etc. and taking the interrelationships of these properties into account. Scholes (2002) argues that the corporate level strategy is concerned with the overall scope and purpose of an organisation and how value may be added by the subcomponents of the organisation. He further argues that the corporate strategy is likely to address concerns of the shareholder expectations and stock markets.

Both Lorange (1980) and Scholes (2002) argue that the business unit / division strategy is about how to compete successfully in particular markets. This strategic level also addresses concerns regarding the advantage over competitors and identifying or creating new markets / opportunities. Scholes (2002) makes a distinction with the strategic business unit, which is a part of the organisation that serves it's own external market that is different from other strategic business units of the same organisation. The external clients may not see a strategic business unit as an identifiable entity, which may be confusing in marketing terms.

HP aims to prevent this confusion by applying a solution based customer approach. The solution approach is focused on the customer's business problem that needs to be resolved. Whether one or several strategic business contributes to the solution is transparent for the customer, since HP assures that the necessary resources are mobilised to design, deliver, implement and maintain the solution. Lorange (1980) and Scholes (2002) argue that the strategy at the functional level is aimed at the delivery of the corporate and division / business unit strategy by the organisations component parts. Scholes (2002) argues that the integration of operational decisions and strategy takes place in this level.

Watson (1993) indicated an individual / team strategy that is made by teams to achieve targets relevant to the day-to-day operations of an organisation. Often these strategies are agreed between the functional managers and the individual contributors of the team. These strategic targets may have a direct relationship with the personal performance appraisal. The team / personal strategy level have their effect on the realisation the strategic objectives of the strategic levels above, since the results of the companies operations are delivered to the customers at this level. The results from all operational levels are aggregated to the higher levels, resulting in performance that is compared against the corporate objectives.

During the implementation of a strategy, tactics are often applied to parts of an organisation. These tactics are aimed at overcoming a current issue or to deliver a shorter-term strategic objective. When a tactic becomes an organisational routine, it may be standardised into a procedure.

In this report, the focus will be on business unit and strategies, how they are formed, implemented, monitored and controlled.

2.2.1 Strategic planning

A plan in it's most simple form has a beginning, a goal and a means to connect the two. Planning may be defined as a purposeful, dynamic activity concerned with achieving a desired goal. Strategic planning may be defined as the design or formulation of a control system or framework for strategic management.

"Classical" formal planning techniques serve several functions (Quinn 1991); the process requires rigorous communication about goals, strategic issues and resource allocations. The planning process provides a discipline framework for managers to periodically take a careful look ahead, assess long term investment horizons and stimulate longer-term analyses, than might be made otherwise. In this

look-ahead the managers need to evaluate and integrate short-term plans. The discipline framework may also help implement changes decided upon by senior management and provide an opportunity to fine tune annual commitments.
In this light, the strategic plan also creates a backdrop against which managers may evaluate short-term or interim decisions. Quinn distinguishes the formal process of the strategy planning process from the experiences, developments and changes in the business environment, arguing that it would be virtually impossible to synthesise all the aspects into one articulated strategic plan.

In contrast to the "pure" formal strategy planning process, Mintzberg & Waters (1985) compared intended and realised strategies of several companies. Their research assumes that the strategic development process used, is the classical top-down analytical approach.
Mintzberg & Waters found that part of the strategy that was intended, but not realised, was replaced by a strategy that was initiated from the lower levels of the organisation, referred to as "emergent" strategy. The part of the intended strategy that was realised is referred to as the "deliberate" strategy. The graphic below depicts the model.

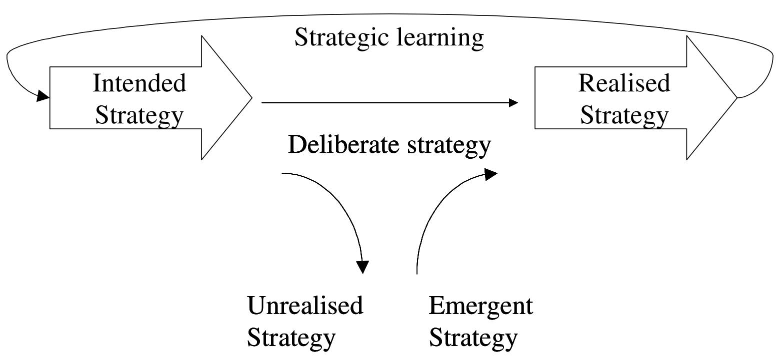


Figure 4 Types of Strategies, Mintzberg & Waters (1985)

The research indicates that there is a continuum between the two extremes; neither the perfect emergent strategy nor the perfect deliberate strategy is likely to exist. In the strategic planning phase, this difference between the two extremes may be used as input to determine which emergent strategy management is aiming to propagate or prevent. Experience gathered by the management during the execution phase of the strategy and response patterns from the organisation may be used to adapt the directive part of the intended strategy.

Lorange (1980) argues that there are four aspects to the role of strategic planning that would support the role of a strategic decision tool, designed to motivate and support strategic change.
Strategic planning would address the allocation of scarce resources, assist the organisation in adapting to the environment, coordinate strategic activities to achieve sound integration and an efficient operation. Finally, by applying a systematic management development approach by building an organisation that can learn from the outcome of past decisions. This would imply that the experience would be evaluated in the strategic planning process.
Johnson & Scholes (2002) argue that the strategic planning process may provide a structured means of analysis and thinking about complex strategic problems on a longer term view. Strategic planning may be used as a vehicle to measure performance against objectives over time and as a means of coordination between different business units that are aimed to attain the corporate strategy. Strategic planning may be used to involve people in the development of the strategic course, which may be useful to communicate the intended strategy and induce a sense of ownership throughout the organisation in the newly defined course.
Finally, planning systems may provide a sense of security and serve as a reference for the organisation, especially for the management team.

Johnson and Scholes (2002) further argue that most people make sense of a complex situation by looking at the situation in more than one perspective. They approach strategic planning in a similar manner by applying three basic views of strategic planning; the “design lens”, the “experience lens” and the “ideas lens”.
The “design lens” is based upon the idea that strategy is formulated in the top of an organisation and is applied top-down. The classic top-down formulation of strategy would fall into this category.
This approach to strategic planning is useful, since it aims to position the organisation deliberately through an analytical, structured and directive process. This approach alone would not be sufficient, since it does not take the company’s paradigm, personal experience, culture, local necessities and personal objectives of a manager into account.
The “ideas” lens sees strategy in the light of the emerging patterns and innovation that arises from the diversity and variety that exists within and around an organisation. The experience lens is related to the ideas lens. People invariably interpret events in the light of their own experience and formulate

new ideas on the basis of their interpretation. The variety of experience can propagate or stunt the growth of ideas, since the experience lens may act as a filter for new ideas, many of which may not be successful. “The greater the variety of experience, the more likely there will be innovation”.
The design lens does not explain how a new strategy may emerge from the lower levels of the organisation (Mintzberg & Waters 1985). This adaptive part of the strategic planning process may be considered the field of the “experience” and “ideas” lens. (Johnson & Scholes 2002).
Combining the manager’s experience and ideas with the formal strategic planning process is supported and reinforced by the Hoshin planning method HP uses to plan and implement its strategic objectives.
In the light of the research problem the conclusion of this section may be that the strategic objectives are designed. In order to assure that strategic objectives become objectives common to all involved. These objectives are cascaded down in the organisation and by making use of the experience and ideas of the managers, the strategies of each level are articulated.
In this way, feeding experience and ideas back into the design by the Hoshin planning method may align the deliberate and emergent strategies.

2.2.2 Measuring strategic performance

Often companies evaluate strategy through purely quantitative methods such as financial ratio analysis, time series analysis and operations research, which express the performance in financial terms. Whilst these evaluation models are very useful in their own right to assess the financial health of a company, these methods do not evaluate the company’s performance against achievement of its Mission (Hastings, Simon 1996).

An organisation states its overriding purpose in the mission statement (Johnson & Scholes 2002).
A mission statement would normally state the key values on which the organisation is based and provide a link to the vision of the organisation. The mission statement would provide clarity on the aspirations of the organisation. Strategic intent (Hamel & prahalad 1989) may take the place of the mission statement and vision on the premise that the mission and vision are often used interchangeably. The strategic intent is a statement that summarises the desired future state of the organisation.

Objectives resulting from strategic planning are statements of specific outcomes that are to be achieved (Johnson & Scholes 2002). Objectives should be clear and decisive (Quinn 1991). Clear in the sense that they are well understood and decisive so that when achieved, the objective provides an advantage of the organisation against its competitors.

Generally, objectives should comply with the SMART acronym (Daft 2002), which means that the objective should specific, measurable, achievable, realistic and time based. Objectives may be cascaded down in an organisation, from strategic down to operational objectives. Operational objectives should answer the question “What are we trying to accomplish?”.

Traditionally HP used management by objectives to cascade objectives from the corporate level down to the operational level. This method was integrated in ”the HP way”.

Management by objectives is a method by which managers and employees define operational objectives that will be measured regularly to assess performance.

The management by objective method is used for each management level, which results in a clear plan for each level. Corporate objectives may more likely be achieved when they focus manager and employee’s efforts. This position is supported by Leboeuf (1985) who argues that “what gets measured is what gets done”.

Since 1985 HP adopted the “Hoshin-Kanry” method as an enhancement of the strategic planning process to define the objectives and means to achieve them (Witcher, 2000). Currently HP is implementing an integrated planning and reporting programme that is based upon the Balanced Scorecard method. Literature for the Hoshin-Kanry method and balanced scorecard will be reviewed to explore linkages to the problem statement.

2.2.2.1 Hoshin

The Hoshin Kanri philosophy originated from Japan. The essence of Hoshin Kanri is that it brings the whole organisation into the strategic planning process, top-down as well as bottom-up. It does so by supplying the necessary tools and the use of the Plan, Do, Check, Act cycle (Shewhart 1931). Shewhart invented the PDCA cycle, which was popularised by Deming, especially in Japan. Subsequently this PDCA cycle is also known as the “Deming” or “Shewhart” cycle.

The cycle is a closed control loop that feeds information or experience back into each subsequent loop of the ongoing process. The PDCA cycle would be most useful if it were considered a principle for operations, on which a planning / monitoring / control system would be based.

Hoshin translates from Japanese as policy and Kanri[7] as management. According to Japanese sources (Akao, Nemoto, Koura) Hoshin Kanri exists under different names, but the same basic principle apply. Akao (1991) summarises Hoshin Kanri as follows; ”It is a means to pull together the forces within a company and to unite the minds, internally, to perpetually improve its performance by adjusting quickly to changes”.

The Hoshin planning process is the adoption of Hoshin Kanri that was first applied by HP (Witcher 2000).

The difference between Hoshin Kanri and Hoshin planning is that Akao uses the word Hoshin to mean the target and the means to achieve the target. In Hoshin planning there are targets (objectives) and measures (means). Furthermore, the objective categories of Hoshin Kanri are normally expressed in Quality, Cost, Delivery, Education (QCDE) terms, which are more related to drive continuous improvement (kaizen) as part of a Total Quality Management approach. Hoshin planning uses categories that are in line with the categories used in the balanced scorecard, this allows easy integration of the two methods.

Hoshin planning is the main Hoshin method that is used in the western business organisations. The objective categories of Hoshin planning are called business fundamentals. In the light of the report scope, the Hoshin planning method will be explained. Where relevant, Hoshin Kanry may be referenced.

All Hoshin adopters use “Hoshins” to develop and deploy corporate goals across the organisation. Hoshins are forms that are used to capture strategic planning data (See Appendix 2).

The process produces well defined and documented plans, which may be reviewed or studied to gain knowledge about the strategic planning process and rationale for decisions.

[7] The Japanese character that represents “Kanji” has secondary meanings, “shiny needle” or “compass”

The Hoshin planning process starts with the review of the previous year by executive management of an organisation. The review takes an audit of the organisation's environment, past experience gathered, current knowledge into consideration and the perspective of the organisation' s long term objectives into consideration. The outcome is a Hoshin plan with limited amount of objectives for the coming year, which are presented to the organisation's resources to be placed into their own Hoshin plans.

These objectives are generically classified as financial, processes, education and quality. These categories or business fundamentals, are similar to those used in the balanced scorecard method. Depending on the industry, or specific needs of a part of an organisation, these fundamentals may be expanded with one or more category. In a production environment, the addition of safety may be a valuable addition.

The premise is that when everybody contributes something to a Hoshin plan, the organisation as a whole will benefit and have taken a step forward, which it would not have achieved otherwise. Contributions are added to the annual Hoshin plan and the method aims to enable anyone to translate a Hoshin in terms of their own job. The planning process is conducted in an open way and interactively to assure all participants agree and support the resulting Hoshin.

All other objectives, activities, plans that relate to the work environment of an individual or team would be taken into consideration. This important stage, where the objectives are cascaded down and experience and where ideas are fed back up of the Hoshin Kanri is called the “catch ball” phase. Ideas are interactively played about much like a play when a ball is thrown between the players.

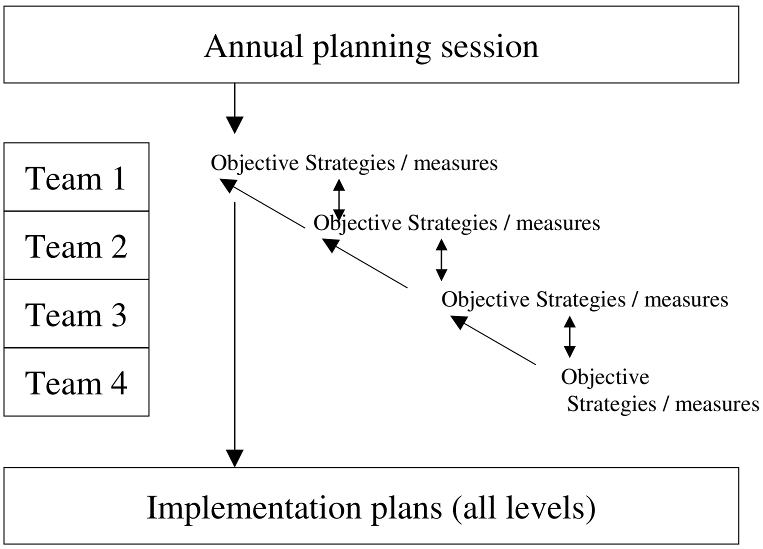


Figure 5 Catchball activity (Witcher 2000)

Contributions to the Hoshin plans should be made in such a way, that they make a clear difference given the resources managers have at their disposal and the jobs they already have to do. Hoshin Kanri may be categorised as a “resource stretching” strategy development process (King 1989).

The format that is used to communicate the Hoshin plan by HP is common for the western adopters of Hoshin planning. There are four sections for the situation, objective, strategy, and goals & measures. The situation describes the rationale behind the chosen objective. The description would clearly indicate the urgency (priority) of actions to be taken and identify risks that the company faces.
The Hoshin objective is linked to the situation and pro-active in nature. This means the objective should induce a change in behaviour. The objective must therefore be challenging and difficult to achieve. This approach forces people to find a way to do things in a different way. The objective only states what should be done, not how the objective must be achieved.
The strategy section is concerned with how the objective may be achieved. This section may consist of several sub-strategies, but these should be limited in number. When the strategies can only be used

to achieve the objective and unfit for any other purpose, the strategy may be considered of sufficient focus.

The goal measures the progress of the objective in the overall sense. The measures are linked to the sub-strategies. Measures may include dates and targets that relate to factual data. This allows the evaluation of the successful achievement of the strategy.

2.2.2.2 Balanced Score Card

The balanced scorecard method that was developed by Arthur Scheidermann is usually associated with Kaplan and Norton. The main argument that drives the balanced scorecard method appears to be "if you can't measure it, you can't manage it".

The Hoshin business fundamentals are closely related to the balanced scorecard method.

Kaplan and Norton (1996) proposed the balanced scorecard method to translate an organisation's mission and strategy into a comprehensive set of performance measures. The balanced scorecard method aims to provide a framework for strategic management and measurement.

Kaplan & Norton (2001) argue that five principles must be followed to execute strategy. Translate strategy in operational terms by using the strategy map, align the organisation to the strategy by applying structure, make strategy every one's job, make strategy a continuous process and mobilise change through executive leadership by creating a sense of urgency for change and focus attention to performance.

Three steps make strategy everyone's job; first by communicating the vision to create awareness and understanding, then align personal objectives by applying the strategy map and finally align incentive compensation. To make strategy a continuous process the budgeting process needs to be linked to strategy and use the balanced scorecard in the double loop learning process to assure that the balanced scorecard reflects the overall strategy.

One of the main apparent advantages of the scorecard is that the corporate goals, measures and performance against the objectives can be physically represented on one sheet of paper (Scheidermann 1999)

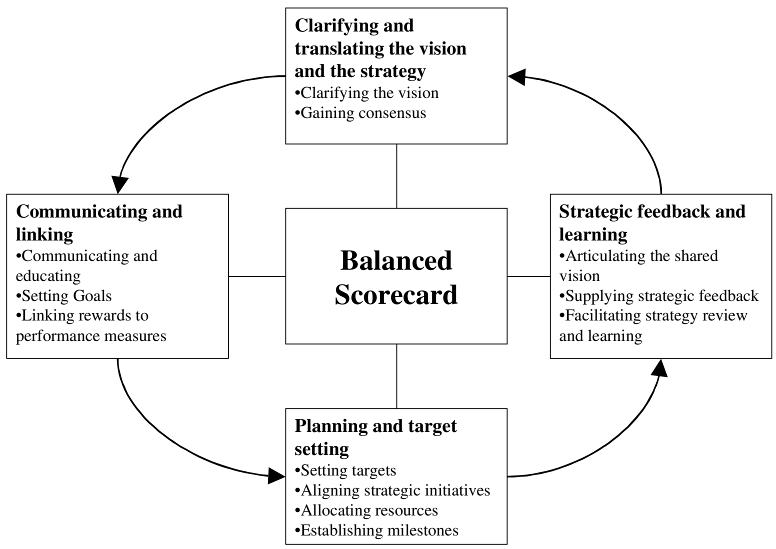


Figure 6 The balanced scorecard as a strategic framework for action (Kaplan & Norton 1996)

The balanced scorecard method assumes a top down approach for strategic planning. The objective of balanced scorecard is to motivate all managers and employees to implement the strategy successfully.

Kaplan and Norton (1996) argue that the importance of building a scorecard is that is creates a shared understanding of the organisation's vision of the future, it creates a holistic model of the strategy and that the scorecard may focus change efforts. The holistic model would enable employees to see how they could contribute to the success of the organisation.

Companies that are able to translate their strategy into their measurement system may be better able to execute their strategy. Since the organisation can communicate their objectives and targets.
Kaplan and Norton conclude that a successful scorecard is one that communicates strategy through a set of financial and non-financial measurements.
Kaplan and Norton define strategy as a set of hypotheses about cause and effect. The balanced scorecard method links the measures to strategy by identifying cause-and-effect relationships, linking these relationships to performance drives or outcomes and in the end link the drivers to the financial measure of the objective.
If-then statements that lead from the cause to the financial measure may capture the cause and effect relationships.

The generic outcome measures are categorised as lag indicators, for example profitability, market share etc. The lead indicators, or performance drivers are measures that may be unique for a certain business unit strategy, for example the financial drivers of cost reduction etc.
Ultimately, the performance of a company is expressed is financial terms. This means that the direct links between an objective and the strategy should be defined in financial terms. Even a non-financial objective, such as a total quality programme should deliver a (future) financial advantage, may not be allowed exist for it’s own sake.
A well-balanced scorecard would have an appropriate mix of lagging outcomes and leading indicators that reflect the organisation’s strategy.

The balanced scorecard method implies a hierarchical order of the balanced scorecard perspectives, which becomes apparent when the strategy map is used.
The “strategy map”, shows the cause and effect of actions and measures that are planned to satisfy a certain objective or cross-functional objectives.
The “strategy map” takes the following form:

- ✓ Objective(s)
    - Financial perspective
    - Customer (Quality) perspective
    - Process (internal) perspective
    - Employee (learning) perspective

The line of analysis is top-down for each objective and the analysis is used to define the balanced scorecard for that objective. This process may be repeated until all strategic objectives have been analysed. When the cross-functional strategy map is built, two or more strategy maps are drawn in one diagram the same way as the normal strategic maps are made. The cross-border linkages and their cause and effect relationships are identified and quantified. The process increases in complexity as the amount of cross-border relations increase. The process becomes more iterative in nature with increasing complexity, because of the knock-on effects that a single cause and effect relation may impact on an adjacent function.

Schneidermann (1999) identified six reasons for failure of a balanced scorecard implementation.

- ✓ The non financial drives are wrongly identified as primary drivers of future stakeholder satisfaction
- ✓ The measures are poorly defined and are not representative for stakeholder satisfaction
- ✓ Improvement goals are negotiated, rather than based upon stakeholder requirements, knowledge of process limits and improvement process capabilities
- ✓ There is no deployment system that breaks high level goals down to operational level goals, where the improvement activities take place.
- ✓ The currently available improvement tools are not used
- ✓ The false expectation that there is a definite quantitative link between non financial objectives and expected financial results

Using Hoshin planning may prevent most of the causes that might result in the balanced scorecard to fail. Experience and knowledge of senior management would assure that the correct drivers are identified. Furthermore, senior management would be capable to define a balanced relationship between non-financial objectives and their financial outcome.

One of the major challenges of Hoshin is to keep the amount of Hoshin plans, objectives and their strategies to a bare minimum, otherwise the information may mushroom towards an impressive pile of documents. With a complex and large organisation as HP, the sheer amount of Hoshin plans may impede senior management to get a good strategic overview.

In the literature of the balanced scorecard little support was found on how the ends and means would be linked in an analytical way. Hoshin planning may be considered quite explicit in this respect. Combining the capability of the balanced scorecard with the capabilities of the Hoshin planning process may provide a good balance. The balanced scorecard may provide the necessary overview and the Hoshin planning may explicitly combine means to ends, and if needed, a possibility to drill-down to case-specific detail.

2.2.3 Implementation of strategy

The implementation or execution of a strategy is how an organisation puts the strategic plans of the chosen strategy into effect. Most modern companies would use an integrated approach to strategic planning, monitoring and control. To implement strategies, HP deploys the Hoshin method combined with the balanced scorecard method.

As discussed earlier, Mintzberg & Waters (1985), argue that the realised strategy is the result of the deliberate strategy in combination with the emergent strategy. They coined the term strategic learning; feed back of experiences and identified patterns of behaviour into the strategic planning process, as a closed loop system.

Galbraith and Kazanjian (1985) take a top-down perspective and argue that the tools to use for putting strategy into action are structural design, organisational leadership, human resources management and the organisation's information and control systems. The structural design would include an organisation chart, which shows how the company is organised, it states each manager's position and shows what the reporting lines are.

The organisational leadership aims to motivate and persuade the workforce to adopt new behaviours, and in some instances to infuse new values and attitudes. Participation of the employees in the strategic planning process may help to implement strategic changes, since managers and employees already know what the new strategy means and are already committed.

Human resources management is concerned with the recruitment, selection, training, transferring promoting and laying off employees to achieve strategic goals. Using the human resources training capability may help to develop the necessary skills and behaviours that would support the strategic plan.

The information and control systems would include the rewards system, pay incentives, budgets for resource allocation and the organisation's rules, policies and procedures. Changing any of these systems may have a significant impact on the implementation of the strategy. These systems should be capable to handle possible necessary changes.

Johnson & Scholes (2002) argue that strategy is about how the organisation performs overall. They take a more "people oriented perspective and argue that the verb "organising" better reflects the challenge than articulating a top down strategic plan that would have to be implemented by the rest of the organisation.

In this light, they argue that from a people's perspective, that the configuration of an organisation may help or hamper strategies. The components of the configuration are structures, processes and relationships & boundaries. These components are described in the strategic linkages Johnson and Scholes identified.

Access to the right skilled people, correct and timely information, financial resources and the proper technology are enablers to implement successful strategies. On one side the organisational strategies demand capabilities of the enablers available for the organisation and on the other side, the enablers provide opportunities to create new strategies.

"People are the heart of strategy". From this perspective, they identified three linkages; People as a resource, people as cultural/ political context and organising people.

Enabling people as a resource for strategy may be managed through performance management practices and the management of personal and organisational competences, as strategic capability is concerned with the way resources are deployed. This part of the enabling linkages may be described as the "hard side" of human resource management.

People as cultural / political context is an important and often undervalued linkage to strategy. Failure to understand, address and change this context may result in problems and / or hamper the implementation of an otherwise good strategic plan. This part of human resource management is often referred to as the "softer" side.

Organising people is the strategic linkage with the human resource function, the role of line managers, organisational structures & roles and processes & relationships.

The human resource function is mostly concerned with the recruitment, training, rewarding, transferring etc. of people in order to provide the organisation the capable and skilled people its needs to fulfil the strategic objectives. The human resource function is also concerned with the investment in competence, knowledge and innovation that need to be managed responsibly.

The line managers are confronted with the day-to-day operations and the effects this may have on the workforce. Therefore, they may play a significant role in blending human resource functions and business strategies. The line managers may act as a role model, coach, instigator or champion for new ideas and initiatives, whilst they keep the day-to-day operations going as changes and new strategies are being implemented.

The ability to adapt structure and roles inside an organisation; the broad structure and design of the organisation are built in the classical way. With an organisation chart showing the design of the organisation, management positions and reporting lines. The processes would include the formal processes and procedures that drive and support the people within and around the organisation.

Outside these formal processes, the informal processes such as behaviours, the way people interact that are needed for success would also require attention. Finally, the way relationships and boundaries inside and outside the organisation are initiated and maintained may influence the performance of the organisation. Three issues that are part of the relationships and boundaries are;

- ✓ How responsibility for strategic and operational decisions can be divided
- ✓ Where, within the value chain, activities may be best placed
- ✓ The relationships with partners.

These issues would have to be addressed in the strategic plan and managed in the closed control loop of strategy execution.

An organisation may have to change form by the creation of new jobs or grades, reduction of posts to fund posts elsewhere to adapt to changing demands. People may have to be redeployed from one division to another. If an organisation is able to envisage and implement such changes, it may have a distinct advantage over competitors who cannot.

2.3 Immediate discipline, analytical models and research questions

From the analysis of the literature review, it becomes apparent that people execute strategy and that the strategic objectives are the main guideline for their strategic decisions and actions.

Strategic objectives, the means to achieve them and their measures are defined during the strategic planning process by means of Hoshin planning. The output of the Hoshins is used to define the balanced scorecard. The balanced scorecard is then used to monitor progress against the objectives. In paragraph 1.2.3, the conditions for a deliberate strategy to be successful (Mintzberg & Waters 1985) were identified. The second condition; "for intentions to be common to all, there should be no gap between the priority and the dependencies between the strategic objectives as intended and perceived" appeared not to be satisfied, which prompted the research questions.

This condition points to a possible gap for which no earlier research appears to have been conducted. Gratton (1999) researched the strategic approach to human resource management of leading companies in this field in the UK. The research yielded a model that allows an integrated view of the relationship between business and human resource strategies.

This strategic human resources model is compatible with the triangular approach of the “design lens”, the “Experience lens” and the “Ideas lens” argued by Johnson & Scholes (2002). This compatibility supports the assumption that the model may be compatible with the Hoshin planning process.

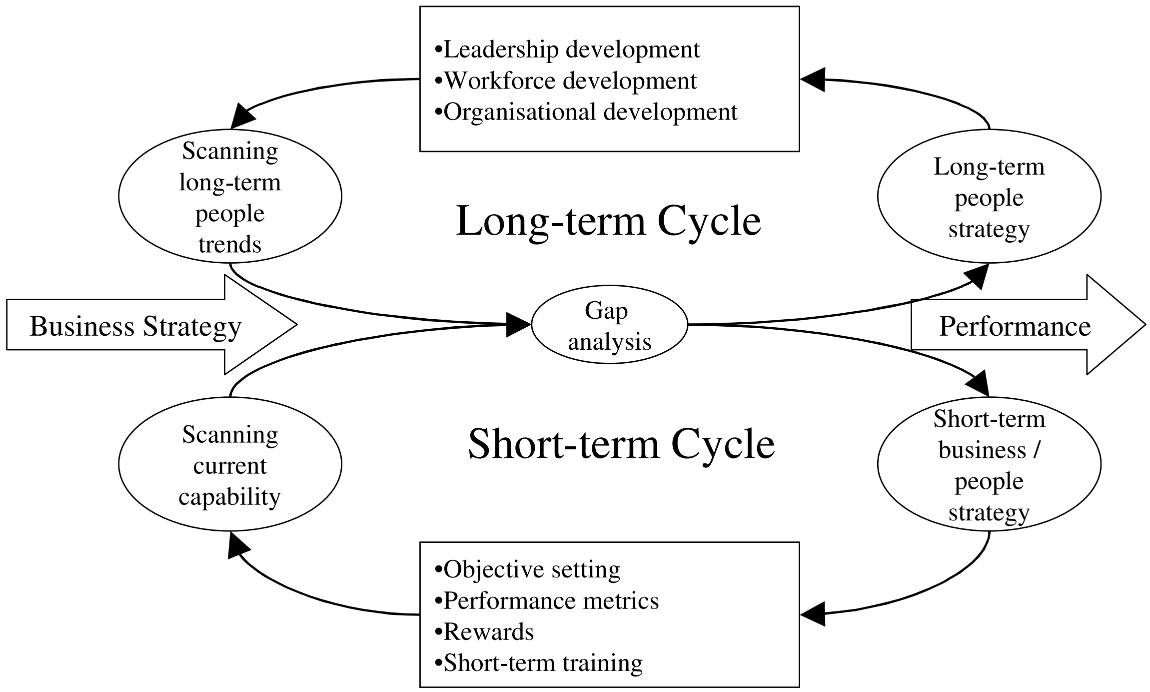


Figure 7 The people process map, embedding transformational change, Gratton 1999

The Hoshin planning process is capable to achieve a strong linkage between the organisation’s and personal strategy. In this respect, the process appears to be compatible with the model, since the relevant sections; financial, processes, education and quality are addressed in the Hoshin planning process.

The objective setting process is inside the shorter-term loop of the model, this report will seek to analyse the gap between the priority and dependencies of the strategic objectives as intended and perceived. A gap analysis may be performed on any of the points that may be relevant to managing an organisation and people. By nature, a gap analysis is a “first stage” technique that allows a feel for the size of the strategic problem. A gap analysis frames the problem and indicates in which direction a solution may be found.

When a gap analysis is performed, the concern may not just be to identify the gap, but how to "bridge the gap" and possibly obtain a competitive advantage by doing so (Billsberry 1981).

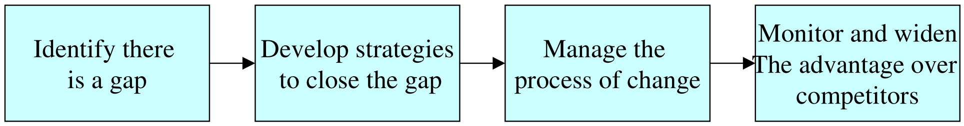


Figure 8 A model of a gap analysis

Two social groups; "pre-merger Compaq" and "pre-merger HP" managers experience the current change. Once the two companies are fully merged, these managers will execute the strategy of the "New HP".

The gap that may exist at the moment between the intended and perceived strategy, would be several one-time gaps between;

- ✓ the perceived strategy of the population and the intended strategy of the "new HP"
- ✓ the perceived strategy of each social group and the intended strategy of the "new HP"
- ✓ the perceived strategy between the two social groups

This premise requires a one-time adaptation of the model.

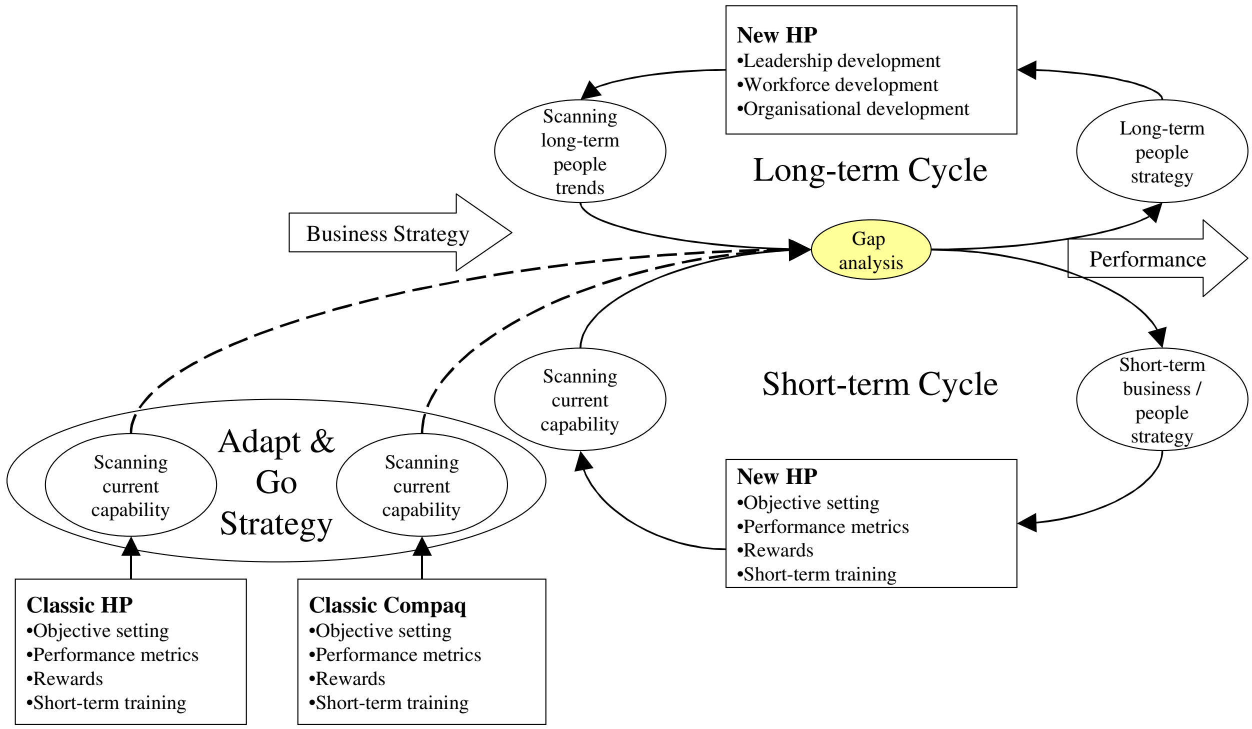


Figure 9 Adapted People process map (Gratton 1999)

The result of the gap analysis of this report will be used to propose a strategy to close the gaps.

2.4 Conclusion

After the initial strategic design is completed, the managers, who will implement the strategy may feed their experience and ideas back into the strategic plans. The means to achieve the strategic objectives that result from the strategic planning of each level are defined by the managers who will implement the strategy. This whole process may be regarded as a "people process". People would have to be motivated to participate in the strategy design process and commit to its outcome.

On one side stands the long term strategic design that is made by top management with it's strategic intent, which may be a completely different direction than "last years plan". On the other side stands the collective paradigm and idea pool of the managers inside the organisation who may be more committed to the process side of the operations an in better touch with strategic market requirements.

The Hoshin planning process in combination with the balanced scorecard allows the strategic intent to be communicated to the organisation and allows feedback from within the organisation.
From there on, the strategic objectives, their means to achieve them and the measures for strategic performance are agreed and documented.
A result of the Hoshin planning method is that it delivers a well-documented implementation plan.
The amount of information may make it difficult to gain a strategic overview. The balanced scorecard method may be weaker in defining the means to reach the objectives, but it provides a clear overview of the current strategic progress.
Hoshin planning may be used to conduct the strategic planning process and the balanced scorecard method may be used to measure performance against the agreed objectives in each planning level.

Objectives may be seen as the basis upon which the strategy is expressed, communicated and to which managers and employees may commit. By their nature, objectives are expressed in specific and measurable terms. Objectives should be achievable, realistic and time based.
The strategic objectives appear in each step of the process, from the initial strategy design up to the execution and strategy performance measurement.
In the light of the problem statement, the "people process map" (Gratton 1999) offers a model to assess the gap between the intended strategy and the perceived strategy. This gap may be expressed and measured in terms of objectives, intended v.s. perceived.
This gap may cause a deliberate strategy to fall victim of an emergent strategy that is based upon the incorrect assumptions and perceptions, which may result in a realised strategy that fails to fulfil any strategic objective. On the other hand, when the gap is identified and quantified, management may be able to act to close the gap within an acceptable limit.

3 Methodology

3.1 Introduction

In the previous chapter the objectives were identified as the basis by which strategy is expressed, strategic performance is measured and to which managers commit for execution of the strategy.

If there were a gap between the intended and perceived strategy, the gap would most likely be found in the perception of the strategic objectives. The researcher is convinced that the professional managers understand the content and meaning of the expressed strategic objectives and expects no gap in this regard.

The priority of and the relationship between the strategic objectives may not be as easy to communicate. This report seeks to research if there is a gap by expressing these variables in numerical terms.

Therefore, ranking, the relative importance and the strength of the relationships between the 5 strategic objectives will be subjected to research.

The values for these variables that pertain to the intended strategy will be compared to those values that pertain to the perceived strategy of both social groups.

The difference in these values may indicate a measure for the gap.

The methodology is aimed to produce research results that may indicate a measure of the gap in numerical terms. The larger the numerical difference between the intended and result of the research This part of the report aims to identify the methodology that serves the research project and describe the data collection method, so other researchers may duplicate the research.

3.2 Justification for the paradigm and methodology

Qualitative methods involve the collection of information from key informants and may be conducted via interviews, extended creativity groups, case studies and action research (Vandervelde, 2000) The qualitative methods focus on collecting respondents constructs, establishing causality and explaining phenomena rather than discuss patterns between variables and their correlation. Qualitative research collects information about “what people think” rather than “how many people think”. Quantitative research collects opinions of a larger respondents group. Qualitative research is often conducted prior to quantitative research to gather information on the subject under research.

Quantitative research has some advantages; it is easy to implement into an organisation, easy to use for statistical analyses and data processing. By its quantitative nature, it becomes more representative of a group's opinion as the number of respondents rises, this makes it possible to search and discover relation between variables or clusters of variables. Finally, it is cost effective, since the researcher does not need a team of people that need to be trained and to conduct the interviews.
The main disadvantage of quantitative methods is that it provides limited information, there is no opportunity to delve deeper into a certain subject.

Qualitative research has the advantage that, when conducted well, it may explain why a respondent supports a certain opinion on a subject. There is the opportunity to obtain more information that is relevant.
Some disadvantages of qualitative research may be that this research is labour intensive because information needs to be collected, transcribed and analysed. This leads to the constraint that a limited number of respondents (sample) may be interviewed. If the sample is small, ill recruited or the sample provides an inappropriate representation of the population, the research may be challenged because it may not qualify as representative.
Finally, another disadvantage of qualitative methods is that it may be subject to researcher bias of interpretation.

The selected respondent population approximates 65 managers, the exact number was not known at the time of data collection, since several positions were not filled.
Because of the sample size, a quantitative method, the survey was selected. The meaning of the strategic objectives in relationship to the business was clear to all respondents, because all actively participate in the Hoshin planning process. The relationship between the strategic objectives is also defined during the strategic planning process, by the use of the strategy map. Qualitative research to assess the content of the survey was therefore not carried out.

3.2.1 Unit of analysis and subjects

The research aims to measure the difference between the intended strategy v.s. the perceived strategy through the responses in the survey that relate to the strategic objectives.

The assumption is made that the values on the survey form returned from the executive sponsor may be used as the basis for the values that would be representative of the intended strategy. This assumption is made under the premise that the executive sponsor has a clear view of the objective priorities, their relative importance and the relationships between them.

The priority of each objective may be determined in two ways; through a ranking process and through pair-wise comparison of each objective against another. In the survey, both methods were used and were placed in their own section

In the ranking section of the survey form, the ranking process was conducted by assigning an order to all objectives. Each ranking number was to be used only once. This ranking process indicated the priority of each objective.

In the "importance of objectives" section of the survey form, two objectives were compared against one another by means of a pair-wise comparison process. The comparison was conducted by assessing which of the two objectives had a higher effect or importance over the opposing objective. The relative weight of each objective against itself was valued at one.

A relative weight between two elements may be a subjective choice. If a scale of relative importance were used, a subjective judgement may be quantified. If the scale were consistently applied, the judgements might be weighed consistently amongst a group of respondents under certain conditions. Saaty (1985) proposes a scale of relative importance. It is assumed that the respondent has knowledge about the relative intensities of the elements that are being compared.

The table below shows the scale and description of each intensity.

Intensity	**Definition**	**Explanation**
1	Equal importance	Two objectives contribute equally to the strategy
2	Intermediate between equal and moderate	
3	Moderate importance of one over the other	Experience and judgement slightly favour one objective over the other
4	Intermediate between moderate and strong	
5	Essential or strong importance	Experience and judgement strongly favour one objective over the other
6	Intermediate between strong and demonstrated	
7	Demonstrated importance	An activity is strongly favouring one objective over another and its dominance is demonstrated in practice
8	Intermediate between demonstrated and extreme	
9	Extreme importance	The evidence favouring one objective over one another is of the highest possible order of affirmation

Table 1 Scale of relative importance (Saaty 1985)

By pair-wise comparison a tangible (or measurable) element may be compared against an intangible or subjective element. For example, two criteria that might be used to determine the satisfaction of consuming an orange could be the purchase price (measurable) of the orange and it's experienced sweetness (subjective). The underlying assumption would be that there is a coherent paradigm within the sample group of the subjective elements that are evaluated.

To prevent bias and to provide the respondent an easy way to make the pair-wise comparison, the comparison may be conducted on a double scale, as indicated in the example below that is taken from the survey form.

Example: "Which objective do you think is more important in the design of motor cars?"

Safety																**Comfort**
9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9
				X												

Table 2 Example of a double scale of comparison

The reason for this approach is that the concept of comparing A against B may not be as easy as comparing B to A or otherwise. This way, the respondent is free to make the comparison in the order that seems logical to her / him.

This part of the survey might indicate the objective priorities by applying logic to the results from the survey question. For example three objectives A, B and C are pair-wise compared; if A results more important than C and B more important than A, then logic implies that B is more important than C. If a value is selected from the center of the scale the logical relationship is determined as equal. This logic can only be applied if the results from the survey are consistent enough to warrant further conclusions to be drawn from the data. The results from the ranking and pair-wise comparison section of the survey may contradict. This contradiction may help indicate areas where clarification or further discussion of the objectives may be necessary.

In the "relationship between objectives" section of the survey form, the relative strength between the objectives was assessed on the same 1 to 9 scale. In this case, the respondent was not required to make a choice between the two objectives, so the single 1 to 9 scale was used as per the example below that is taken from the survey.

Example "How strongly are the objectives related to one another in the design of motor cars?"

Safety – Comfort								
1	2	3	4	5	6	7	8	9
					X			

Table 3 Example of single scale of comparison

The survey ended with an open question. “State in one sentence (+/- 30 words) how you think HPS management could communicate the strategic objectives clearly and relevant to you.”
The answers to this question will be categorised by the author. If a pattern can be determined in the responses, the results may aid to answer the problem statement.

3.2.2 Instruments used to collect data

As indicated before the survey form that was used to gather primary data was divided into several sections;

- ✓ Introduction; here the purpose of the survey is explained and instructions are given
- ✓ Demographic relevant data of the respondent is requested in the demographic section
- ✓ Strategic objectives; here the ranking of the objectives by means of a simple list is conducted
- ✓ Importance of objectives; the pair-wise comparison is conducted here. The individual objectives are compared against one another to determine their priority as related to one another, and the extent to which one objective may have a priority over another.
- ✓ Relationship between objectives; the strength of the relationships are assessed here
- ✓ Open question; here the respondent has an opportunity to voice an opinion

The survey form was distributed through electronic mail, together with a cover letter of the executive sponsor, inviting each respondent to participate. The responses were processed as ordinal data.

3.2.3 Any unusual treatment of data

The scale used in the survey is of an ordinal nature. When the data would be tested for a mean, the original scale would not contain a zero value, which would result in faulty results. The statistical package that will be used assumes that an integer scale which passes from positive to negative values, should pass the zero mark. Therefore, the data related to the double scale is transformed before it is entered into the Statistical package as per the table below. On the left side of the scale, the value is converted to a negative value that is shifted one integer to zero. On the right side of the scale, the value is shifted one integer down to zero.

Standard scale																
9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9
Fit for analysis																
-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8

Table 4 Conversion of double scale of camparison

After all statistical tests have been performed, the resulting mean values may be converted back to the original scale. For example; –0.5 would become –1.5 and +.4.7 would become +5.7.
If the latter transformation was performed to represent the results in chapter 5, this was noted in the report. No other unusual treatment of data was performed on the survey data; missing values were not replaced by assumed values.

3.2.4 Computer programs used to analyse data and their justification

SPSS (Statistical Program for the Social Sciences) was used to capture and analyse the data from the surveys. SPSS contains functions to analyse data and perform statistical operations without calculation errors. Another feature is the ability to produce clear tables and graphics. These may aid to explain the observations made by the researcher.
Due to the large amount of data, the use of a program like SPSS is likely to save time during data processing. The responses were processed as ordinal data.

3.3 Research procedures

Part of the outcome of the strategic planning process is aimed to communicate the strategic objectives and their importance. When this process is effective, the gathered data relating to these objectives may be normally distributed around a certain value.

Beforehand, the minimal sample size is unknown. As a rule of thumb, a pilot sample size of thirty is regarded as a minimum for each variable.

The required sample size depends on certain factors. The efficient sample size formula, which originates from statistical theory, may be used as an indication of the minimal sample size.

The formula that defines the efficient sample size is:

$$N =[Z_{\alpha/2} * \sigma/E]^2$$

Where

- ✓ N is the efficient sample size
- ✓ $Z_{\alpha/2}$ is the Confidence level at a certain significance, the half of alpha (α) is used, since the Z-value table is a one sided test
- ✓ σ is the standard deviation of the population
- ✓ E is the error between the population and sample value

The efficient sample size may be determined for each test after a pilot on a sample of approximately 30 respondents. If the pilot returns less than 30 respondents, the formula for the efficient sample size is regarded as an estimate for further research.

Saaty (1985) argues that the error for the scale of comparison may be estimated at plus and minus one unit on the scale, which would amount to an error (E) of 2.

If the alpha would be set at 0.05, this would result in a $Z_{\alpha/2}$-value of 1.96. The formula for the efficient sample size may then be expressed as follows:

- ✓ $N=[1.96 * \sigma/_2]^2$

The sample size that resulted from the survey, thirty responses, appeared to be too small to allow parametric testing, especially if a selection of the sample were tested, which happens if either of the two social groups is selected. Then the sample size would be between thirteen and sixteen if no missing values exist.

Since the sample size is small, non-parametric tests were used. Non-parametric tests use distribution free procedures and are especially appropriate when small or moderate sample sizes are used. Because the data may not be normally distributed and due to the small size of the sample, a reliability analysis with the Cronbach Alpha method could not be used.

The Chi square test is used to compare the observed and expected frequencies in each category contains a certain proportion of values. The researcher may set these proportions or the assumption is made that the proportion is equal. For each variable in the survey, the proportion of the returned values is unknown. A test of this distribution does not add value to the research. Therefore, the chi square test is abandoned.

The following tests were used:

- ✓ Wilcoxon-Mann-Whitney to test if the opinions of the independent social groups may be similar enough to support the assumption that both social groups are sampled from a single population.
- ✓ The Kolmorogov-Smironov One-sample test was used to test whether if the distribution of opinions in the sample approximates a normal distribution around a mean. The central limit theorem implies that the distribution of an average will tend to be normal as the sample size increases, regardless of the distribution from which the average is taken. If data is normally distributed around a mean value, the mean may be regarded as the group opinion.

In all tests the significance (Alpha) is 0.05 and double sided tests are performed.

The hypotheses will be specified in the following section.

In the case of the Wilcoxon-Mann-Whitney test, the null hypothesis is retained if the resulting p-value exceeds alpha.

In the case of the Kolmorogov-Smironov One-sample test, the null hypothesis is retained if the resulting p-value exceeds alpha

3.4 Hypotheses

The hypotheses relate to the research questions. The sequence of sections on the survey will be used to present the hypotheses. The hypotheses are listed here; it could be possible that the results from an analysis may invalidate other hypotheses. In such case, that will be reported in chapter 5.

3.4.1 Section Demographics

There were no formal hypotheses formulated for this section, but the data was studied and some observations were reported.

3.4.2 Section strategic objectives.

In this section of the survey, the five objectives that ranked in a simple order.

Research question 1 "What is the perceived priority of the strategic objectives?" may be answered by determining the mean value that results from this part of the survey questions.

The Kolmogorov-Smirnov one sample test that was carried out, assumes that the data follow a normal distribution around a mean.

Hypothesis 1-5: Tested by the Kolmogorov-Smirnov one sample test

H_0: The distribution of answers to the ranking of Objective X follows a normal distribution

H_a: The distribution of answers to the ranking of Objective X does not follow a normal distribution

The hypotheses were tested on all five objectives and for three situations;

a – the whole population

b – the "pre-merger Compaq" respondents

c – the "pre-merger HP respondents"

Research question 3. Are the objectives "Common" to all; is there no difference in perception of strategic objectives between the two social groups?

Part of this question may be answered by testing the assumption if the results from the survey are normally distributed around a mean value.

Hypothesis 6-10: Here the Wilcoxon-Mann-Whitney test is used

H_0: The distribution of answers to the ranking of Objective X have the same distribution

H_a: The distribution of answers to the ranking of Objective X does not have the same distribution

3.4.3 Section importance of objective

In this section of the survey, the objectives were compared against one another by pair-wise comparison.

Research question 1 "What is the perceived priority of the strategic objectives?" may be answered by determining the logic between the values that result from this part of the survey questions.

Research question 2 "What is the perceived dependency between the strategic objectives?" may be answered by determining the mean value that results from this part of the survey questions.
The Kolmogorov-Smirnov one sample test that was carried out, assumes that the data follow a normal distribution around a mean.

Hypothesis 11-20: Tested by the Kolmogorov-Smirnov one sample test

H_0: The distribution of answers to the comparison of the importance of Objective X and Y follows a normal distribution

H_a: The distribution of answers to the comparison of the importance of Objective X and Y does not follow a normal distribution

The hypotheses were tested on all five objectives and for three situations;

a – the whole population

b – the "pre-merger Compaq" respondents

c – the "pre-merger HP respondents"

Research question 3 “Are the objectives “Common” to all; is there no difference in perception of strategic objectives between the two social groups?” may be answered by determining the mean value that results from this part of the survey questions.

Hypothesis 21-30: Here the Wilcoxon-Mann-Whitney test is used

H_0: The distribution of answers to the comparison of the importance of Objective X and Y have the same distribution

H_a: The distribution of answers to the comparison of the importance of Objective X and Y does not have the same distribution

3.4.4 Section relationships between objectives

In this section of the survey, the strength of relationship between the objectives was queried.

Research question 2 “ What is the perceived dependency between the strategic objectives?” may be answered by determining the mean value that results from this part of the survey questions.

The Kolmogorov-Smirnov one sample test that was carried out, assumes that the data follow a normal distribution around a mean

Hypothesis 31-40: Tested by the Kolmogorov-Smirnov one sample test

H_0: The distribution of answers to the relationship between Objective X and Y follows a normal distribution

H_a: The distribution of answers to relationship between Objective X and Y does not follow a normal distribution

The hypotheses were tested on all five objectives and for three situations;

a – the whole population

b – the “pre-merger Compaq” respondents

c – the “pre-merger HP respondents”

Research question 3 “Are the objectives “Common” to all; is there no difference in perception of strategic objectives between the two social groups?” may be answered by determining the mean value that results from this part of the survey questions.

Hypothesis 41-50: Here the Wilcoxon-Mann-Whitney test is used

H_0: The distribution of answers to the relationship between Objective X and Y have the same distribution

H_a: The distribution of answers to the relationship between Objective X and Y does not have the same distribution

3.4.5 Open question

The author read about the possibility to use open questions to capture extra information in an article about the relationship building process between salespeople and customers (Boles, Barksdale, Johnson, 1996).
Whilst conducting the literature review the author did not find any relevant references that would indicate how to approach this particular situation.

Therefore the author used the "What, Why, How, Who, When and Where" questions that might be used to specify the communication strategies as a basis for the categories. This choice is based upon common project manager's practice to define any unclear situation by answering at least these five open questions.

The answers to the why, when and where question are assumed to be;

- ✓ Why? "to prevent a gap between intended and perceived strategy"
- ✓ When? "by planned sessions"
- ✓ Where? "inside HP premises"

These answers reflect generic practice inside HP.

Three questions remain;

- ✓ What will be communicated?
- ✓ How will it be communicated?
- ✓ Who will perform the communication?

The data is divided in categories .The amount of responses pertaining to a certain category is used to imply the importance of the category as experienced by the respondents.

Several responses may be grouped into one category. The basis that is used for grouping to form categories, is that the responses cover a single field and imply a similar action (What?), a way to perform the action (How?) and who should perform the action (Who?).

Category	Action
What	
0	Not specified
1	Clarify, prioritise, explain direct contribution, relate to operations
2	Active leadership
3	Clarify strategic objectives by documentation
4	Integration and synergy
5	Consistent messages
6	Explain
7	Customer perspective
8	Training
9	Actively requesting opinions, by surveys
How	
0	Not specified
1	Interactive
2	Standard / common practice/ templates
3	Distribution
Who	
0	Not specified
1	Executive manager
2	Manager of a business line or team
3	All managers
4	All employees
5	Customer

Table 5 Open Question category definition

After the frequencies are assessed for each category, the Pareto principle is applied to select the categories that will be used for inferences.

The further process is detailed further in chapter 4 and 5.

3.5 Ethical considerations

3.5.1 Confidentiality of survey data

Confidentiality is important to maintain to assure that the researcher obtains fair and truthful responses from the respondents. Information that is captured is not allowed to relate directly to the respondent. When responses were received, the author marked the survey forms with a number.
The survey forms were then printed and placed in a binder, no personal information of any responded was added to this binder.
The information of the forms was then entered into SPSS. It is this data that is public.

3.5.2 Decisions and their consequences

During the literature review, the author found some information which does not directly relate to the problem statement, but which may bear upon decisions made by managers in pursuit of business success. A decision may affect the organisation or society as a whole in a positive or damaging way.

Humans may accept new ideas and "truths" in the framework of their own personal knowledge and experience. Ideas and beliefs would ideally be validated before they could be used as the basis for strategic decisions. Complexity and an unstructured environment may pose a special risk to a decision maker. It could be possible to present convincing arguments for an idea, belief or decision that in reality may have little validity. Such an approach may be harmful for society. Therefore the use of ethical standards should be observed when applying decisions that relate to strategic planning.

The philosopher Alaisdair McIntyre of Boston University identified four qualities that may be used as a guideline for a decision maker's approach when dealing with socially relevant issues during the decision making process and the consecutive implementation.

- ✓ Truthfulness by not oversimplifying complexity
- ✓ Fairness by evaluating costs and benefits, and assigning cost to those who get the benefits
- ✓ Ability to plan for the unknown by calculating changes, determining where the changes are likely to occur, and deciding which priorities should dictate action
- ✓ Flexibility in adapting to change by planning, implementing and in response to change, re-planning and reimplementation

A higher level of "truthfulness" may be obtained if the systems approach is used to assess the complexity of a decision problem by including the relevant decision elements and respecting the relationships amongst the decision elements. Fairness may be aided by providing a clear and well documented strategic planning process that allows decisions to be reviewed and offers an opportunity to enhance the process itself. Identification and quantifying of strategic issues would allow provision of a measurable framework to plan, measure, monitor and control (Deming 1931) the results of the strategic planning process.
One other ethical aspect of the decision making process may be that stakeholders may wish to influence the a strategic choice by applying techniques that may not be driven by the validity of certain arguments, but more by the desire for a certain outcome. Brindle identified these techniques as "games".

These games may include (Brindle. 1999):

- ✓ Framing; that is the way the boundaries of a problem or situation is defined, or the way relevant information is omitted.
- ✓ Criteria selection; this is the natural preference to select quantitative criteria that can readily be measured v.s. qualitative criteria which may be more difficult or impossible to quantify
- ✓ Rationality; the use of rational reasons (not) to decide for an option, without disclosing the rationale behind the reasons, which may not be valid.
- ✓ Misuse of comparison (or analogy); by assuming a situation with all decision parameters is already known, important information may not be considered in the decision making process, which may result in a flawed decision.

A sound decision making process might encourage socially responsible decisions, minimise "games" and could provide a framework for testing the quality of decisions by the traceability of the process steps.

3.6 Conclusion

Due to the small sample non-parametric tests were used. Two tests were identified that could be used to test the null hypotheses. One test would be needed to assess if the variables are distributed normally around a mean value. The Kolmorogov-Smironov One-sample test was used to test whether if the distribution of the whole sample and the two social groups would approximates a normal distribution around a mean

The other test would be needed to assess if the respondents belong to a single population by testing the data for each variable. The Wilcoxon-Mann-Whitney was used to if support could be found that the opinions between the independent social groups; “pre-merger HP” and. “pre-merger Compaq, could belong to the same population.

The methodology was defined and explained. The hypotheses were presented and research procedures were selected.

The report continues with the presentation of the data and will report the patterns that were identified.

4 Analysis of data

4.1 Introduction

The objective of this chapter is to present a comprehensive overview of the research results. No conclusions in relation to the research questions will be drawn in this chapter. These conclusions will be presented in chapter 5.
The methodology to conduct the research was explained in the previous chapter.
The order by which the results will be presented, will be that of the survey form and the order of the hypotheses as presented in chapter 3.
Detailed information, tables and graphics are listed in appendix 5.

The tables for the one-Sample Kolmogorov-Smirnov Test contain these fields;

- ✓ N - is the amount of sample points or responses, N may distinguish between valid and missing data points
- ✓ Normal Parameters – defines calculated parameters that would result from a normal distribution of the data
    - o Mean – is the mean value the data appears to be distributed around
    - o Std. Deviation - the standard error of the mean of each variable
- ✓ Asymp. Sig. (2-tailed) – Asymptotic approximation of the confidence interval for a two-tailed test
- ✓ H_0 – shows if the null hypothesis is retained or rejected
- ✓ Efficient sample size – is the calculated value of the sample size that results from the way the data is distributed and the required confidence interval, for the purpose of this report, the efficient sample size is used to define the minimal sample size

The tables for the Mann-Whitney-Wilcoxon test contain these fields:

- ✓ Asymp. Sig. (2-tailed) - Asymptotic approximation of the confidence interval for a two-tailed test
- ✓ Exact Sig [2*(1-tailed Sig.)] – exact calculation of the confidence interval for two times a single-tailed test, calculation from the data
- ✓ H_0 shows if the null hypothesis is retained or rejected

The test statistic is based on the ranks of the absolute values of the differences between the two variables, the results in the tables are not corrected for ties, that is equal values. The grouping variable is used to distinguish between the two social groups. This variable, pre-merger employee has two values; 1 for pre merger Compaq and 2 for Pre-merger HP

4.2 Subjects

All managers of HP Services were invited to participate in the survey. The managers may be responsible for a business line or a particular group of resources. The managers were selected during execution of the adapt-and-go integration strategy of HP. The managers may originate from pre-merger Compaq and pre-merger HP.

4.3 Patterns of data for each survey section and related hypotheses

The sample size is not very large, though the response rate of 46% (30 replies out of 65 respondents) was reasonably high. When a sample size has effect on the interpretation of the results, this will be duly noted in this report.

4.3.1 Section Demographics

The variables that were surveyed in this section were:

- ✓ The years the respondent is employed by the organisation
- ✓ The years the respondent is performing the present position
- ✓ If the respondent is a pre-merger Compaq or HP employee
- ✓ If the respondent works part time or full time; part-time is 30 hours per week or less

Of the 30 respondents, 13 respondents, 43 %, were identified as originating from pre-merger Compaq and 16, 53 %, from pre-merger HP.

One respondent did not fill in to which pre-merger company the respondent originated from, this value was reported missing in the sample, approximately 4 %.

All respondents were working in full-time jobs.
No formal hypotheses were formulated for this section. The results were tested to find inferences if the data might be normally distributed.
Another respondent did not indicate the years as an employee not the years the respondent was working in current position.
This resulted in 29 valid samples for the pre merger variable, 29 valid cases for the years as an employee and in current position variables, which results in 28 valid cases that were evaluated.
Any missing value is ignored in the evaluation, so this discrepancy does not compromise the results.

Years as an Employee		**Sample**	**Pre-merger Compaq**	**Pre Merger HP**
N	Valid	29	12	16
	Missing	1	1	0
Normal Parameters[a,b]	Mean	10.6897	10.5833	10.3750
	Std. Deviation	5.7638	6.6941	5.1365
H_0		H_0 is retained	H_0 is retained	H_0 is retained
Efficient sample size		32	43	26

Table 6 Results years as an employee

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 26 and 43 mark. In all cases the sample size is lower than required. A definite conclusion may not be drawn from the results. A Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null hypotheses may be retained, which infers that the results for “years as an employee” approximate a normal distribution.

The results for the variable “years as an employee” appear to indicate that the population may consist of two “cohorts”.

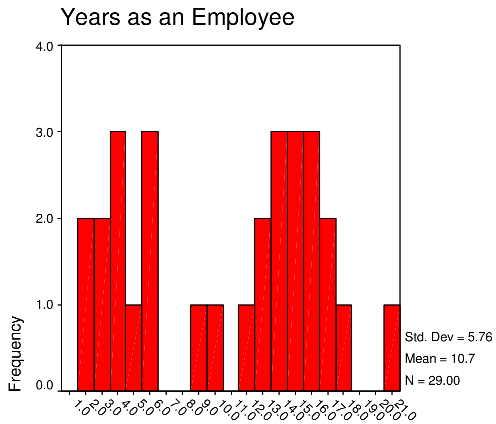


Figure 10 Years as an employee, Overall

One cohort of 11 respondents, 39 %, appears to have joined the companies from six years ago up till this date. The mean value appears to lie around the 4 years mark. 5 of these respondents originated from Pre-merger Compaq, which accounts for 42 % of this social group. The other 6 respondents originated from pre-merger HP, which accounts for 50 % of that social group.
The other cohort of 17 respondents, 61%, appears to have joined the companies from 9 yeas ago until 21 years ago. The mean value for this cohort appears to lie around the 14 year mark. 6 of these respondents originated from Pre-merger Compaq, which accounts for 58 % of this social group. The other 6 respondents originated from pre-merger HP, which accounts for 50 % of that social group.
The reason for the formation of the two “cohorts” is not researched any further.

The results for each social group appear to indicate a time gap from year 7 to 12 between the two cohorts in the pre-merger Compaq group. The time gap between the two cohorts in the pre-merger HP group appears to span between year 7 and 8.

Since the sample size was lower than the required sample size, no conclusions may be drawn from these results.

Years as at current position		Sample	Pre-merger Compaq	Pre Merger HP
N	Valid	29	12	16
	Missing	1	1	0
Normal Parameters [a,b]	Mean	2.3103	2.5000	2.2500
	Std. Deviation	1.4664	1.6787	1.3416
H_0		H_0 is rejected	H_0 is retained	H_0 is retained
Efficient sample size		2	3	2

Table 7 Results years at current position

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 2 and 3 mark. In all cases the sample size is higher than required. A Kolmogorov-Smirnov one sample test that was conducted on the data implies the null hypothesis for the whole group is rejected. This infers that the distribution of responses is not normally distributed. A look at the results may show why this result was recorded.

As the results show, 13 of the respondents, 46 %, indicated that they occupied the current position for the past two years. This extreme peak may have caused the null hypothesis to be rejected.

7 respondents,25 % is less than two years in the current position and 9 respondents, 29 % is longer than two years in the current position.

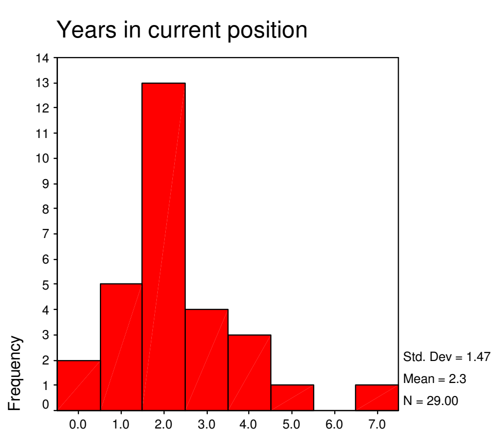


Figure 11 Years in current position

In the light of the minimal sample size, the results of each social group may be used for inferences. However, due to the small sample size for each social group in respect to the whole population, conclusions about the whole social group may have to be regarded as indicative.

A Kolmogorov-Smirnov one sample test that was conducted on the data implies that the null hypotheses for each social group may be retained.
The years in current position data appear to be grouped around the 2-3 years mark for both social groups.

4.3.2 Section ranking of strategic objectives.

In this section of the survey, the five objectives were to be ranked in a simple order. The results are divided into three sets.
The first set is overall; these are the results of the whole sample, which consists of respondents of both social groups.
These results were used to determine if the data approximated a normal distribution around a mean value and if the independent samples would appear to be taken from a single population.
The second set shows the results for the pre-merger Compaq employees. The third set shows the results for the pre-merger HP employees. These two sets were used to determine if each social group held a coherent opinion about each variable. The values of these opinions would be compared to the value that represents the intended strategy of a particular variable.

Note: The resulting reported values are related to the converted scale “fit for analysis”, this scale has the an ordinal form of –8 via 0 to +8.

Hypothesis 1-5: Tested by the Kolmogorov-Smirnov one sample test

H_0: The distribution of answers to the ranking of Objective X follows a normal distribution

H_a: The distribution of answers to the ranking of Objective X does not follow a normal distribution

Set a: All respondents

One-Sample Kolmogorov-Smirnov Test		Ranking Delivery	Ranking Go-to-market	Ranking Growth	Ranking Partnerships	Ranking Market share
N		30	30	30	30	30
Normal Parameters[a,b]	Mean	2.7333	2.1000	3.2667	3.2667	3.6333
	Std. Deviation	1.0807	1.3983	1.6595	1.2299	1.2172
Asymp. Sig. (2-tailed)		.171	.005	.044	.444	.045
H_0		H_0 1 Retained	H_0 2 Rejected	H_0 3 Rejected	H_0 4 Retained	H_0 5 Rejected
Efficient sample size		2	2	3	2	2

Table 8 Hypothesis 1-5: Kolmogorov-Smirnov one sample test (overall)

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 2 and 3 mark. In all cases, the sample size is higher than required. The sample size is sufficiently large to draw conclusions about the whole population.

A Kolmogorov-Smirnov one-sample test that was conducted on the data resulted that the null hypothesis 2, 3 and 5 were rejected, null hypothesis 1 and 4 were retained.

The results infer that the group does not appear to hold congruent opinions about the “Go-to-market”, “Growth” and “market share” objectives, since these variables do not display a normally distributed behaviour. Therefore, the ranking results for the whole group were not used to answer the research questions; further analysis of these results was not performed.

Set b: pre-merger Compaq

One-Sample Kolmogorov-Smirnov Test		Ranking Delivery	Ranking Go-to-market	Ranking Growth	Ranking Partnerships	Ranking Market share
N		13	13	13	13	13
Normal Parameters [a,b]	Mean	2.8462	1.9231	3.4615	3.3077	3.4615
	Std. Deviation	.9871	1.4412	1.7614	1.1821	1.1983
Asymp. Sig. (2-tailed)		.244	.076	.298	.567	.228
H_0		H_0 1 Retained	H_0 2 Retained	H_0 3 Retained	H_0 4 Retained	H_0 5 Retained
Efficient sample size		2	2	3	2	2

Table 9 Hypothesis 1-5: Kolmogorov-Smirnov one sample test (pre-merger Compaq)

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 2 and 3 mark. In all cases, the sample size is higher than required. In the light of this requirement, the sample size is sufficiently large to draw conclusions about the whole population. On the other hand, due to the small sample size for the pre-merger Compaq group, conclusions derived from these results about the whole Pre-merger Compaq population may have to be regarded as indicative, not conclusive.

The Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null hypotheses were retained.

This suggests that the opinions of the pre-merger Compaq managers about the ranking of the objectives display a normally distributed behaviour.

Set c: pre-merger HP

One-Sample Kolmogorov-Smirnov Test		Ranking Delivery	Ranking Go-to-market	Ranking Growth	Ranking Partnerships	Ranking Market share
N		16	16	16	16	16
Normal Parameters[a,b]	Mean	2.6250	2.1250	3.0000	3.3125	3.9375
	Std. Deviation	1.2042	1.3601	1.5916	1.3022	1.0626
Asymp. Sig. (2-tailed)		.556	.121	.339	.536	.442
H_0		H_0 1 Retained	H_0 1 Retained	H_0 1 Retained	H_0 1 Retained	H_0 1 Retained
Efficient sample size		2	2	3	2	2

Table 10 Hypothesis 1-5: Kolmogorov-Smirnov one sample test (pre-merger HP)

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 2 and 3 mark. In all cases, the sample size is higher than required. In the light of this requirement, the sample size is sufficiently large to draw conclusions about the whole population. On the other hand, due to the small sample size for the pre-merger HP group, conclusions derived from these results about the whole Pre-merger HP population may not be regarded as conclusive, but should be regarded as indicative.

The Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null Hypotheses were retained.

This infers that the ranking results of the pre-merger HP managers follow a normally distributed pattern.

Hypothesis 6-10: Here the Wilcoxon-Mann-Whitney test is used

H_0: The distribution of answers to the ranking of Objective X follows a normal distribution

H_a: The distribution of answers to the ranking of Objective X does not follow a normal distribution

Mann Whitney test

Test Statistics [b]	Ranking Delivery	Ranking Go-to-market	Ranking Growth	Ranking Partnerships	Ranking Marketshare
Asymp. Sig. (2-tailed)	.552	.612	.538	.875	.272
Exact Sig. [2*(1-tailed Sig.)]	.589 [a]	.650 [a]	.559 [a]	.880 [a]	.308 [a]
H_0	H_0 06 Retained	H_0 07 Retained	H_0 08 Retained	H_0 08 Retained	H_0 10 Retained

Table 11 Hypothesis 6-10: Wilcoxon-Mann-Whitney test

[a] Not corrected for ties.

[b] Grouping Variable, Pre-merger Employee

Earlier results show that the sample size is sufficiently large to draw conclusions about the whole population. The Mann Whitney test that was performed on the data resulted that all null hypotheses were retained. This means the data may be considered as originating from one population.
The distance between the intended and reported values is indicated as the delta in the table below.

Mean Values	Ranking Delivery		Ranking Go-to-market		Ranking Growth		Ranking Partnerships		Ranking Market share	
Intended	2.00		3.00		1.00		4.00		5.00	
	Mean	Delta	Mean	Delta	Mean	Delta	Mean	Delta	Mean	Delta
Pre-merger Compaq	2.85	0.85	1.92	1.08	3.46	2.46	3.31	0.69	3.46	1.54
Pre-merger HP	2.63	0.63	2.13	0.87	3.00	2.00	3.13	0.87	3.98	1.02

Table 12 Mean values Ranking of objectives, intended v.s. social groups

From a statistical point of view, the hypotheses were retained with the alpha of 0.05. On the other hand, the sample size in respect to the whole population of each social group is not very large. There may be a risk that the opinions that were gathered might not represent the opinions of the social groups as a whole.

The demographic results indicate that a fair representation of the whole population in respect to "years as an employee" was sampled. The demographic results further indicate that reasonable proportions of each social group were sampled. The opinions of each social group do not appear to be explicit enough to define a ranking order of all objectives.

Therefore, the results in the table 12 above may be used to draw indicative conclusions.

4.3.3 Section importance of objective

In this section of the survey, the objectives were compared against one another by pair-wise comparison

The results in all tables reflect the converted "fit for analysis" scale values. That is, the values range from –8 via a zero value up to +8.

The results are divided into three sets.

The first set is overall. These are the results of the whole sample that consists of respondents of both social groups. The second set shows the results from the pre-merger Compaq employees. The third set shows the results from the pre-merger HP employees.

Hypothesis 11-20: Tested by the Kolmogorov-Smirnov one sample test

H_0: The distribution of answers to the importance of Objective X follows a normal distribution

H_a: The distribution of answers to the importance of Objective X does not follow a normal distribution

Set a: All respondents

One-Sample Kolmogorov-Smirnov Test [b]		Importance Delivery v.s Go-to-market	Importance Growth v.s. Partnerships	Importance Go-to-market v.s. Market share	Importance Delivery v.s. Growth	Importance Growth v.s. Go-to-market
	N	30	30	30	30	30
Normal Parameters [a,b]	Mean	3.333E-02	-6.6667E-02	-1.1667	-1.3667	1.0000
	Std. Deviation	3.9955	3.9386	4.0093	3.8728	3.9741
Asymp. Sig. (2-tailed)		.691	.374	.808	.388	.654
H_0		H_0 11 retained	H_0 12 retained	H_0 13 retained	H_0 14 retained	H_0 15 retained
Efficient sample size		16	16	16	15	16

One-Sample Kolmogorov-Smirnov Test [b]		Importance Delivery v.s. Market share	Importance Go-to-market v.s. Partnerships	Importance Market share v.s. Partnerships	Importance Growth v.s. Market share	Importance Partnerships v.s. Delivery
N		30	29	29	30	30
Normal Parameters [a,b]	Mean	-.4667	-.6207	-.2069	.5667	1.7667
	Std. Deviation	3.6647	2.9811	3.3528	2.8730	2.9674
Asymp. Sig. (2-tailed)		.409	.649	.459	.765	.576
H_0		H_0 16 retained	H_0 17 retained	H_0 18 retained	H_0 19 retained	H_0 20 retained
Efficient sample size		13	9	11	8	9

Table 13 Hypothesis 11-20: Kolmogorov-Smirnov one sample test (Overall)

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 8 and 16 mark. In all cases, the sample size is higher than required. The sample size is sufficiently large to draw conclusions about the whole population. A Kolmogorov-Smirnov one sample test that was conducted on the data resulted that all null hypothesis were retained.

Set b Pre-merger Compaq

One-Sample Kolmogorov-Smirnov Test [b]		Importance Delivery v.s Go-to-market	Importance Growth v.s. Partnerships	Importance Go-to-market v.s. Market share	Importance Delivery v.s. Growth	Importance Growth v.s. Go-to-market
N		13	13	13	13	13
Normal Parameters [a,b]	Mean	.2308	1.0769	-1.9231	-.9231	1.8462
	Std. Deviation	4.4750	4.0919	4.3294	3.4025	4.5249
Asymp. Sig. (2-tailed)		.773	.648	.766	.621	.749
H_0		H_0 11 retained	H_0 12 retained	H_0 13 retained	H_0 14 retained	H_0 15 retained
Efficient sample size		20	16	18	12	20

One-Sample Kolmogorov-Smirnov Test [b]		Importance Delivery v.s. Market share	Importance Go-to-market v.s. Partnerships	Importance Market share v.s. Partnerships	Importance Growth v.s. Market share	Importance Partnerships v.s. Delivery
N		13	13	12	13	13
Normal Parameters [a,b]	Mean	-.2308	.3077	1.0000	.2308	1.1538
	Std. Deviation	3.6777	2.6263	3.2474	2.4205	3.7382
Asymp. Sig. (2-tailed)		.887	.885	.441	.916	.906
H_0		H_0 16 retained	H_0 17 retained	H_0 18 retained	H_0 19 retained	H_0 20 retained
Efficient sample size		13	7	11	6	14

Table 14 Hypothesis 11-20: Kolmogorov-Smirnov one sample test(pre-merger Compaq)

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 6 and 20 mark. In most cases, the sample size is lower than required, except for the "Importance Delivery v.s. Growth", "Importance Delivery v.s. Market share", "Importance Go-to-market v.s. Partnerships", "Importance Growth v.s. Market share".

In the light of this requirement, conclusions derived from these results about the whole Pre-merger Compaq population may have to be regarded as indicative. Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null Hypotheses were retained.

Set c Pre-merger HP

One-Sample Kolmogorov-Smirnov Test [b]		Importance Delivery v.s Go-to-market	Importance Growth v.s. Partnerships	Importance Go-to-market v.s. Market share	Importance Delivery v.s. Growth	Importance Growth v.s. Go-to-market
N		16	16	16	16	16
Normal Parameters [a,b]	Mean	6.250E-02	-.8125	-.8125	-1.6250	.5000
	Std. Deviation	3.7677	3.7810	3.7810	4.3951	3.5590
Asymp. Sig. (2-tailed)		.978	.709	.968	.509	.944
H_0		H_0 11 retained	H_0 12 retained	H_0 13 retained	H_0 14 retained	H_0 15 retained
Efficient sample size		14	14	14	19	13

One-Sample Kolmogorov-Smirnov Test [b]		Importance Delivery v.s. Market share	Importance Go-to-market v.s. Partnerships	Importance Market share v.s. Partnerships	Importance Growth v.s. Market share	Importance Partnerships v.s. Delivery
N		16	15	16	16	16
Normal Parameters [a,b]	Mean	-.6250	-1.6000	-1.0625	.7500	2.3125
	Std. Deviation	3.8794	3.0892	3.3560	3.3166	2.2721
Asymp. Sig. (2-tailed)		.538	.473	.833	.870	.575
H_0		H_0 16 retained	H_0 17 retained	H_0 18 retained	H_0 19 retained	H_0 20 retained
Efficient sample size		14	10	11	11	5

Table 15 Hypothesis 11-20: Kolmogorov-Smirnov one sample test(pre-merger HP)

[a] Test distribution is Normal.

[b] Calculated from data.

The efficient sample size varies between the 5 and 19 mark. In most cases, the sample size is higher than required, except for the variable "Importance Delivery v.s. Growth".

In the light of this requirement, conclusions derived from these results about the whole Pre-merger HP population may have to be regarded as indicative. A Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null Hypotheses were retained.

Hypothesis 21-30: Here the Wilcoxon-Mann-Whitney test is used

H_0: The distribution of answers to the comparison of the importance of Objective X and Y follows a normal distribution

H_a: The distribution of answers to the comparison of the importance of Objective X and Y does not follow a normal distribution

Test Statistics[b]

	Importance Delivery v.s Go-to-market	Importance Growth v.s. Partnerships	Importance Go-to-market v.s. Market share	Importance Delivery v.s. Growth	Importance Growth v.s. Go-to-market
Asymp. Sig. (2-tailed)	.774	.172	.390	.354	.243
Exact Sig. [2*(1-tailed Sig.)]	.779[a]	.184[a]	.398[a]	.374[a]	.249[a]
H_0 11 retained	H_0 21 retained	H_0 22 retained	H_0 23 retained	H_0 24 retained	H_0 25 retained

	Importance Delivery v.s. Market share	Importance Go-to-market v.s. Partnerships	Importance Market share v.s. Partnerships	Importance Growth v.s. Market share	Importance Partnerships v.s. Delivery
Asymp. Sig. (2-tailed)	.610	.044	.080	.566	.222
Exact Sig. [2*(1-tailed Sig.)]	.619[a]	.046[a]	.082[a]	.589[a]	.232[a]
H_0 11 retained	H_0 26 retained	H_0 27 rejected	H_0 28 retained	H_0 29 retained	H_0 30 retained

Table 16 Hypotheses 21-30 Wilcoxon-Mann-Whitney

[a] Not corrected for ties.

[b] Grouping Variable, Pre-merger Employee

Earlier results show that the sample size is sufficiently large to draw conclusions about the whole population. The Mann Whitney test that was performed on the data resulted that all null hypotheses were retained. This means the data may be considered as originating from one population.

The table below shows the mean values for both social groups and the value that refers to the intended strategy.

Mean Values	Delivery v.s Go-to-market	Growth v.s. Partnerships	Go-to-market v.s. Market share	Delivery v.s. Growth	Growth v.s. Go-to-market
Intended	0.00	-4.00	3.00	0.00	-4.00
Pre-merger Compaq	0.23	1.08	-1.92	-0.92	1.85
Pre-merger HP	0.06	-0.81	-0.81	-1.63	0.50

Mean Values	Delivery v.s. Market share	Go-to-market v.s. Partnerships	Market share v.s. Partnerships	Growth v.s. Market share	Partnerships v.s. Delivery
Intended	2.00	-5.00	-5.00	0.00	2.00
Pre-merger Compaq	-0.23	0.31	1.00	0.23	1.15
Pre-merger HP	-0.63	-1.60	-1.06	0.75	2.31

Table 17 Mean values Importance of objectives intended v.s. both social groups

Earlier results show that the sample size is sufficiently large to draw conclusions about the whole population. The Mann Whitney test that was performed on the data resulted that all null hypotheses were retained.

The mean values may be used to answer the research questions. The means values of the respondents remain between the +2 and –2 marks, which means that the mark “Intermediate between equal and moderate importance of one objective over the other” is never passed. In this light, these results do not appear to show a clear opinion for pair-wise comparison by either social group.
From a statistical point of view, the hypotheses were retained with the alpha of 0.05. On the other hand, the sample size in respect to the whole population of each social group is not very large. There may be a risk that the opinions that were gathered might not represent the opinions of the social groups as a whole.
The demographic results indicate that a fair representation of the whole population in respect to “years as an employee” was sampled. The demographic results further indicate that reasonable proportions of each social group were sampled.

4.3.3.1 Intended priority assessment by pair-wise comparison

The intended values from table 17 for the intended strategy were used to define the logical relationships.

Objective	Logic	Objective
Deliver	=	GTM
Growth	>	Partnerships
Go-to-market	<	Market share
Deliver	=	Growth
Growth	>	Go-to-market
Deliver	<	Market share
Go-to-market	>	Partnerships
Market share	>	Partnerships
Growth	=	Market share
Partnerships	<	Deliver

Table 18 Logic table to determine intended priority

After analysis of the logic table, the priority resulting from the pair-wise comparison could be assessed.

The logical relationships expressed with an equal sign were ignored, since these do not support the assessment of any order.

Objective	Order by comparison
Growth	1
Deliver	4
Go-to-market	3
Partnerships	5
Market share	2

Table 19 Intended priorities of objectives by logic of comparison

4.3.3.2 Pre-merger Compaq perceived priority assessment by pair-wise comparison

The pre-merger Compaq values from table 17 were used to identify the logical relationships for the pre-merger Compaq group. These relationships were entered in the table below, from which the priority of the objectives could be derived.

Objective	Logic	Objective
Deliver	<	GTM
Growth	<	Partnerships
Go-to-market	>	Market share
Deliver	>	Growth
Growth	<	Go-to-market
Deliver	>	Market share
Go-to-market	<	Partnerships
Market share	<	Partnerships
Growth	<	Market share
Partnerships	<	Deliver

Table 20 Logic table to determine pre-merger Compaq perceived priority

After analysis of the logic table, the priority resulting from the pair-wise comparison could be assessed. The logic conflicted in the ranking between “growth” and “market share”. Here the logical direct relationship between the two objectives was given precedence over other logical relationships.

Objective	Order by comparison
Growth	5
Deliver	2
Go-to-market	1
Partnerships	3
Market share	4

Table 21 Perceived priorities of objectives of pre-merger Compaq group by logic of comparison

4.3.3.3 Pre-merger HP perceived priority assessment by pair-wise comparison

The pre-merger HP values from table 17 were used to identify the logical relationships for the pre-merger HP group. These relationships were entered in the table below, from which the priority of the objectives could be derived.

Objective	Logic	Objective
Deliver	<	GTM
Growth	>	Partnerships
Go-to-market	>	Market share
Deliver	>	Growth
Growth	<	Go-to-market
Deliver	>	Market share
Go-to-market	>	Partnerships
Market share	>	Partnerships
Growth	<	Market share
Partnerships	<	Deliver

Table 22 Logic table to determine pre-merger HP intended priority

After analysis of the logic table, the priority resulting from the pair-wise comparison could be assessed. There were no logical conflicts.

Objective	Order by comparison
Growth	4
Deliver	2
Go-to-market	1
Partnerships	5
Market share	3

Table 23 Perceived priorities of objectives of pre-merger HP group by logic of comparison

All data that was used in the tables and to which logic was applied was statistically relevant data. The mean values were not changed or removed from their context. The order as defined by pair-wise comparison may be regarded as valid for both social groups.

4.3.4 Section relationships between objectives

In this section of the survey, the strength of relationship between the objectives was queried. The results are divided into three sets. The first set is overall. These are the results of the whole sample, which consists of respondents of both social groups. The second set shows the results from the pre-merger Compaq employees. The third set shows the results from the pre-merger HP employees.

Hypothesis 31-40: Tested by the Kolmogorov-Smirnov one sample test

H_0: The distribution of answers to the relationship between Objective X and Y follows a normal distribution

H_a: The distribution of answers to the relationship between Objective X and Y does not follow a normal distribution

Set a: All respondents

One-Sample Kolmogorov-Smirnov Test		Relationship Delivery v.s Go-to-market	Relationship Growth v.s. Partnerships	Relationship Go-to-market v.s. Market share	Relationship Delivery v.s. Growth	Relationship Growth v.s. Go-to-market
N		30	30	30	30	30
Normal Parameters [a,b]	Mean	4.8667	5.4667	6.0667	4.6333	5.8667
	Std. Deviation	2.0466	1.7167	2.2733	2.0424	2.0634
Asymp. Sig. (2-tailed)		.685	.325	.432	.466	.581
H_0		H_0 31 Retained	H_0 32 Retained	H_0 33 Retained	H_0 34 Retained	H_0 35 Retained
Effiecient sample size		4	3	5	4	4

One-Sample Kolmogorov-Smirnov Test		Relationship Market share v.s. Partnerships	Relationship Delivery v.s. Market share	Relationship Go-to-market v.s. Partnerships	Relationship Growth v.s. Market share	Relationship Partnerships v.s. Delivery
N		26	30	30	30	30
Normal Parameters [a,b]	Mean	5.0769	4.9333	5.5000	6.5000	4.8000
	Std. Deviation	1.5728	1.8182	1.6135	1.8336	1.5625
Asymp. Sig. (2-tailed)		.194	.792	.238	.592	.260
H_0		H_0 36 Retained	H_0 37 Retained	H_0 38 Retained	H_0 39 Retained	H_0 40 Retained
Efficient sample size		3	4	3	4	3

Table 24 Hypotheses 31-40 Kolmogorov-Smirnov one sample test (Overall)

[a] Test distribution is Normal.

[b] Calculated from data.

Four respondents did not return a value for the variable “Relationship Market share v.s. Partnerships. The efficient sample size varies between the 3 and 5 mark. In all cases, the sample size is higher than required. The sample size is sufficiently large to draw conclusions about the whole population.
A Kolmogorov-Smirnov one sample test that was conducted on the data resulted that all null hypothesis were retained.

Set b: pre-merger Compaq

One-Sample Kolmogorov-Smirnov Test		Relationship Delivery v.s Go-to-market	Relationship Growth v.s. Partnerships	Relationship Go-to-market v.s. Market share	Relationship Delivery v.s. Growth	Relationship Growth v.s. Go-to-market
N		13	13	13	13	13
Normal Parameters [a,b]	Mean	5.1538	6.0000	6.3846	4.8462	5.9231
	Std. Deviation	2.0350	1.8257	1.8502	1.9936	1.5525
Asymp. Sig. (2-tailed)		.978	.965	.991	.887	.861
H_0		H_0 31 Retained	H_0 32 Retained	H_0 33 Retained	H_0 34 Retained	H_0 35 Retained
Efficient sample size		4	4	4	4	3

One-Sample Kolmogorov-Smirnov Test		Relationship Market share v.s. Partnerships	Relationship Delivery v.s. Market share	Relationship Go-to-market v.s. Partnerships	Relationship Growth v.s. Market share	Relationship Partnerships v.s. Delivery
N		12	13	13	13	13
Normal Parameters [a,b]	Mean	4.6667	5.6154	5.6923	6.6923	4.5385
	Std. Deviation	1.6697	1.3253	1.7974	1.8432	2.0662
Asymp. Sig. (2-tailed)		.860	.860	.745	.661	.730
H_0		H_0 36 Retained	H_0 37 Retained	H_0 38 Retained	H_0 39 Retained	H_0 40 Retained
Efficient sample size		3	2	4	4	5

Table 25 Hypotheses 31-40 Kolmogorov-Smirnov one sample test (Pre-merger Compaq)

[a] Test distribution is Normal.

[b] Calculated from data.

One respondent did not return a value for the variable "Relationship Market share v.s. Partnerships". The efficient sample size varies between the 2 and 5 mark. In all cases, the sample size is higher than required. In the light of this requirement, the sample size is sufficiently large to draw conclusions about the whole population. On the other hand, due to the small sample size for the pre-merger Compaq group, conclusions derived from these results about the whole Pre-merger Compaq population may have to be regarded as indicative. A Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null Hypotheses were retained.

Set c: pre-merger HP

One-Sample Kolmogorov-Smirnov Test		Relationship Delivery v.s Go-to-market	Relationship Growth v.s. Partnerships	Relationship Go-to-market v.s. Market share	Relationship Delivery v.s. Growth	Relationship Growth v.s. Go-to-market
N		16	16	16	16	16
Normal Parameters [a,b]	Mean	4.5625	5.1875	5.9375	4.5625	6.0000
	Std. Deviation	2.1282	1.5152	2.6196	2.1593	2.3944
Asymp. Sig. (2-tailed)		.765	.331	.421	.775	.723
H_0		H_0 31 Retained	H_0 32 Retained	H_0 33 Retained	H_0 34 Retained	H_0 35 Retained
Efficient sample size		5	3	7	5	6

One-Sample Kolmogorov-Smirnov Test		Relationship Market share v.s. Partnerships	Relationship Delivery v.s. Market share	Relationship Go-to-market v.s. Partnerships	Relationship Growth v.s. Market share	Relationship Partnerships v.s. Delivery
N		13	16	16	16	16
Normal Parameters [a,b]	Mean	5.4615	4.4375	5.5000	6.5000	5.0000
	Std. Deviation	1.5064	2.0646	1.4142	1.8257	1.0954
Asymp. Sig. (2-tailed)		.465	.883	.540	.351	.270
H_0		H_0 36 Retained	H_0 37 Retained	H_0 38 Retained	H_0 39 Retained	H_0 40 Retained
Effiecient sample size		3	4	2	4	2

Table 26 Hypotheses 31-40 Kolmogorov-Smirnov one sample test (Pre-merger HP)

[a] Test distribution is Normal.

[b] Calculated from data.

Three respondents did not return a value for the variable "Relationship Market share v.s. Partnerships".The efficient sample size varies between the 2 and 7 mark. In all cases, the sample size is higher than required.

In the light of this requirement, the sample size is sufficiently large to draw conclusions about the whole population. On the other hand, due to the small sample size for the pre-merger HP group, conclusions derived from these results about the whole Pre-merger HP population may have to be regarded as indicative. A Kolmogorov-Smirnov one sample test that was conducted on the data implies that all null Hypotheses were retained.

Hypothesis 41-50: Here the Wilcoxon-Mann-Whitney test is used

H_0: The distribution of answers to the relationship between Objective X and Y follows a normal distribution

H_a: The distribution of answers to the relationship between Objective X does not follow a normal distribution

Test Statistics [b]

	Relationship Delivery v.s Go-to-market	Relationship Growth v.s. Partnerships	Relationship Go-to-market v.s. Market share	Relationship Delivery v.s. Growth	Relationship Growth v.s. Go-to-market
Asymp. Sig. (2-tailed)	.375	.244	.773	.641	.773
Exact Sig. [2*(1-tailed Sig.)]	.398 [a]	.268 [a]	.779 [a]	.650 [a]	.779 [a]
H_0	H_0 41 Retained	H_0 42 Retained	H_0 43 Retained	H_0 44 Retained	H_0 45 Retained

	Relationship Market share v.s. Partnerships	Relationship Delivery v.s. Market share	Relationship Go-to-market v.s. Partnerships	Relationship Growth v.s. Market share	Relationship Partnerships v.s. Delivery
Asymp. Sig. (2-tailed)	.181	.059	.858	.894	.527
Exact Sig. [2*(1-tailed Sig.)]	.205 [a]	.062 [a]	.880 [a]	.914 [a]	.559 [a]
H_0	H_0 46 Retained	H_0 47 Retained	H_0 48 Retained	H_0 49 Retained	H_0 50 Retained

Table 27 Hypotheses 41-50 Wilcoxon-Mann-Whitney test

[a] Not corrected for ties.

[b] Grouping Variable: Pre-merger Employee

Earlier results show that the sample size is sufficiently large to draw conclusions about the whole population. The Mann Whitney test that was performed on the data resulted that all null hypotheses were retained. This indicates that the opinion of the respondents of both social groups are congruent enough to suggest that the respondents both social groups were sampled from a single population.

The table below shows the summarised data.

Mean Values	Delivery v.s Go-to-market		Growth v.s. Partnerships		Go-to-market v.s. Market share		Delivery v.s. Growth		Growth v.s. Go-to-market	
Intended	7.00		7.00		8.00		8.00		8.00	
	Mean	Delta	Mean	Delta	Mean	Delta	Mean	Delta	Mean	Delta
Pre-merger Compaq	5.14	1.86	6.00	1.00	6.38	1.62	4.85	3.15	5.92	2.08
Pre-merger HP	4.56	2.44	5.19	1.91	5.94	2.16	4.56	3.44	6.00	2.00

Mean Values	Market share v.s. Partnerships		Delivery v.s. Market share		Go-to-market v.s. Partnerships		Growth v.s. Market share		Partnerships v.s. Delivery	
Intended	5.00		5.00		7.00		8.00		5.00	
	Mean	Delta	Mean	Delta	Mean	Delta	Mean	Delta	Mean	Delta
Pre-merger Compaq	4.67	0.33	5.62	-0.62	5.69	1.31	6.69	1.31	4.54	0.46
Pre-merger HP	5.46	0.46	4.44	-0.56	5.50	1.50	6.50	1.50	5.00	0.00

Table 28 Relationships between objectives

The delta indicated in the table shows the difference in opinion between each social group and the value that represents the intended strategy for each objective.

The opinions of the two social groups appear to be relatively close together and generally lower than the intended values.

4.3.5 Open question

The author used the "What, How and Who" questions that might be used to specify the communication strategies as a basis for the categories.

- ✓ What will be communicated? Content of communication related to the strategic objectives.
- ✓ How will it be communicated?
- ✓ Who will perform the communication?

The responses from the open questions were categorised according to these categories.
Where the category was not addressed in an answer, the category "Not specified" was applied. In the analysis, this category was noted, but ignored for further analysis, because these opinions may not be regarded as explicit. The explicit opinions for each category were used for analysis.

What		How		Who	
Value	Description	Value	Description	Value	Description
0	Not specified	0	Not specified	0	Not specified
1	Clarify	1	Interactive	1	Executive manager
1	Direct contribution	1	Live case	2	Managers
1	Prioritise	2	Balanced Score Card	3	All managers
1	Relate to operations	2	Regular feedback	4	All employees
2	Lead	2	Strategy map	5	Customer
3	Document	2	Template		
3	Present	3	Distribution		
4	Integration				
4	Synergy				
5	Consistent				
6	Explain				
6	Specify				
7	Customer perspective				
8	Train				
9	Query				

Table 29 Category list open question

What

Response	Frequency	Percent	Valid Percent
1	11	26.8	26.8
3	7	17.1	17.1
6	7	17.1	17.1
0	6	14.6	14.6
4	5	12.2	12.2
2	1	2.4	2.4
5	1	2.4	2.4
7	1	2.4	2.4
8	1	2.4	2.4
9	1	2.4	2.4
Total	41	100.0	100.0

Table 30 What responses open question

Categories 0, 1, 3, 4 and 6 account for 88 % of the occurrences. Category 1 accounts for 27 percent of occurrences.

How

Responses	Frequency	Percent	Valid Percent
0	13	31.7	41.9
1	9	22.0	29.0
2	5	12.2	16.1
3	4	9.8	12.9
Total	31	75.6	100.0
Missing	10	24.4	
	41	100.0	

Table 31 How responses open question

Some responses contained more than one category. This extra information needs to be entered in a new record in SPSS with other values missing. These missing values may be ignored.

Categories 0, 1 and 2 account for 87 % of the occurrences. Category 0 accounts for 42 percent of occurrences.

Who

	Frequency	Percent	Valid Percent
0	21	51.2	70.0
2	4	9.8	13.3
1	2	4.9	6.7
3	1	2.4	3.3
4	1	2.4	3.3
5	1	2.4	3.3
Total	30	73.2	100.0
Missing	11	26.8	
	41	100.0	

Table 32 Who responses open question

Some responses contained more than one category. This extra information needs to be entered in a new record in SPSS with other values missing. These missing values may be ignored.

Category 0 and 2 account for 83 % of the occurrences. Category 0 accounts for 70 percent of occurrences.

4.4 Conclusion

In this chapter the data was presented, the patterns were identified and assessment of the usefulness of the data for conclusions were made.

Due to the small sample size, the minimal samples sizes were not attained for some variables, especially if the exclusive social groups were selected. This minimal sample size could be smaller if the standard variation of the responses would be lower. This would mean that the group opinion would be more congruent.

In the next chapter the conclusions and implications of the research will be presented.

5 Conclusions and implications

5.1 Introduction

In the introduction of the report as short background of pre merger HP and pre-merger Compaq were presented. The internal environment context of the merged company, “the New HP”, was introduced in terms of strategic planning, strategy execution and measuring strategic success.
The research problem was prompted by a particular area of concern caused by the merger between HP and Compaq. This concern was to get a perception of ways for HPS management to communicate a new strategy towards a new organisation. To find a solution for this business problem, a business research model was applied.

During the literature review in chapter 2 it became apparent that strategic objectives form the basis by which the strategy of an organisation is articulated, implemented and by which the business performance is measured. Strategic planning, implementation of strategy and measuring the success of the strategy is done by people. The managers would use methods that are integrated and useful for all strategic activities. Hoshin planning would be used to design the strategic plan. This design would be used to implement the balanced scorecard. Hoshin planning and the balanced scorecard are the methods that are used by HP.

Each manager as a person would have different personal experience and ideas than another person. In the light of this experience and the ideas, a manager would have a personal strategy to fulfil the strategic objectives of the organisation.
As argued, there could be a difference between the intended strategy and the realised strategy. This gap could be caused by the initial perception of the strategic objectives by each manager. It was argued that the priority of the objectives, the importance of each objective compared to another and the strength of the relationships between each pair of objectives might be the properties of the objectives that could identify the gap.

At the end of chapter 2 the people process map (Gratton 1999) and an adaptation thereof, were presented. The process map indicated a gap that, by exploring, might help understand how the perceived strategy of two social groups could be aligned with a new intended strategy. A model of a gap analysis was also presented to be used as a step plan in this chapter.

After the literature review, the methodology was built. The basis of the methodology is that the properties that may define the perception of objectives would be expressed in numerical terms. The difference between the intended and perceived value of these properties might indicate the size of the gap.

These properties were expressed as the priority by ranking order, the relative importance of each objective compared to another objective and the strength of the relationships between each pair of objectives.

The survey form design was based upon these properties. Two additional sections were added, demographics and an open question. The demographics were used to analyse the composition of the respondent group and to enable the data of each social group to be distinguished. The open question was aimed to gather information about the ideas of how the respondents think the communication of the new strategy would have to take place.

In chapter 4 the results were presented, patterns were discussed and noticeable findings were highlighted.

5.2 Conclusions related to the research question or hypothesis

For the purpose of this report, a gap may be described as distance between two positions. The survey results show numbers, which would indicate a numerical mean value of the social group's response of a certain variable in the survey. The mean value of each variable found for each social group may be seen as their perception or opinion.

In the light of the research question, the gap between the value of each variable as expressed by each social group and the value of each variable as expressed by the executive sponsor, may be regarded as most relevant to the gap. The results of the two social groups combined in the whole sample may infer if the group as a whole was able to form an opinion. This inference may show how well the two groups are integrated by measuring their perception of the strategic objectives.

5.2.1 Demographics

Due to the insufficient sample size, the results for the variable “Years as an employee” may not be used to draw any conclusions.

The graphical results appear to indicate that the HPS management team as a whole, may consist of two “cohorts”. 39 % of the respondents seem to be employed by the companies from 0 to 6 years and 61% of the respondents from 9 to 21 years. This pattern seems to be consistent for both social groups. However, after failing the Wilcoxon-Mann-Whitney test, this hypothesis cannot be retained.

For both social groups, the data appears to follow a normal distribution around a mean value, which does not support the assumption that there may be two “cohorts”.

The results of the whole group for the variable “Years in current position” may be used to draw conclusions. The results indicate that a significant amount of respondents, 46 %, have held their current position for the last two years. This result appears to be consistent for pre-merger Compaq, 46 %, and pre-merger HP, 31%.

Conclusion: The results infer that the composition in “Years as an employee” and “Years in current position” of both social groups may be considered comparable.

5.2.2 Research question 1 "What is the perceived priority of the strategic objectives?"

In this report, it was argued that the priority might be assed in two ways, by ranking the objectives in a priority order and by pair-wise comparison of each objective.

The gap would be measured between the intended and perceived priority of the objectives.
First, the intended order of priorities would have to be assed. From the survey of the executive sponsor, the order was assessed.

Objective	Rank	Comparison
Growth	1	1
Deliver	2	4
Go-to-market	3	3
Partnerships	4	5
Market share	5	2

Table 33 Intended priorities of objectives

The results in table 33 imply that the ranking of the objectives by the simple ranking process differs from the ranking that is derived from applying logic to the pair-wise comparison.
This difference implies that a different opinion may be formed when objectives are compared against one another against a straightforward ranking procedure of the same objectives.
When this implication was further investigated, the results showed that the responses of the straightforward ranking procedure by both social groups appeared inconclusive. No clear ranking could be derived from the response data.

When the logic was applied to the pair-wise compared responses of each social group, a conclusive pattern emerged.

Objectives	Value by Ranking	Value by Pair-wise comparison		
	Intended	Intended	Pre-merger Compaq	Pre-merger HP
Growth	1	1	5	4
Deliver	2	4	2	2
Go-to-market	3	3	1	1
Partnerships	4	5	3	5
Market share	5	2	4	3

Table 34 Priorities; intended by ranking and all by pair-wise comparison

The priority values for each objective that were attained by pair-wise comparison appear to differ significantly from the values that were attained from the ranking process. The reason for this significant change may not be clarified from the available data.

The values that resulted from the ranking process were used to measure the gap, since these values relate directly to the survey question.

Mean Values	Ranking Delivery	Ranking Go-to-market	Ranking Growth	Ranking Partnerships	Ranking Market share
Pre-merger Compaq	+0.85	-1.08	+2.46	-0.69	-1.54
Pre-merger HP	+0.63	-0.87	+2.00	-0.87	-1.02

Table 35 Gap between intended and perceived priorities of objectives

The results from the ranking process for each objective that show the perceived value for each social group is significantly different from the intended value.

On the other hand, the perception of the two social groups appears to be close together as table 36 indicates.

Mean Values	Ranking Delivery	Ranking Go-to-market	Ranking Growth	Ranking Partnerships	Ranking Market share
Absolute difference between social groups	0.22	0.21	0.46	0.18	0.52

Table 36 Difference between perceived priorities of objectives by the social groups

The gap between these two groups appears to be significantly lower than the gaps between either group and the intended value. The two groups appear to be reasonably congruent in their opinions, which leads to the hypothesis that these two groups may in fact belong to one population that displays similar opinions. The Wilcoxon-Mann-Whitney results supports this hypothesis.

Conclusion derived from "Ranking of objectives": the two social groups do not appear to have a different opinion in respect to the perception of the rank of the priorities.
Conclusion derived from"Importance of objectives": the priority assessed by pair-wise comparison infers a difference in opinion between both social groups.

The research question 1; "*What is the perceived priority of the strategic objectives?*" may be answered as follows;

Perceived priority	Pre-merger Compaq	Pre-merger HP
1	Go-to-market	Go-to-market
2	Delivery	Delivery
3	Partnerships	Market share
4	Market share	Growth
5	Growth	Partnerships

Table 37 Perceived priority of strategic objectives by both social groups

5.2.3 Research question 2 "What is the perceived dependency between the strategic objectives

The results from the pair-wise comparison do not appear to show a strong perception of the relationships between the objectives by either social group.

The results from the section "Relationship between Objectives" of the survey form suggest that both social groups and executive sponsor regarded all objectives to be related relatively strong to one another.

Mean Values	Delivery v.s Go-to-market	Growth v.s. Partnerships	Go-to-market v.s. Market share	Delivery v.s. Growth	Growth v.s. Go-to-market
Intended	7.00	7.00	8.00	8.00	8.00
Pre-merger Compaq	5.14	6.00	6.38	4.85	5.92
Pre-merger HP	4.56	5.19	5.94	4.56	6.00

Mean Values	Market share v.s. Partnerships	Delivery v.s. Market share	Go-to-market v.s. Partnerships	Growth v.s. Market share	Partnerships v.s. Delivery
Intended	5.00	5.00	7.00	8.00	5.00
Pre-merger Compaq	4.67	5.62	5.69	6.69	4.54
Pre-merger HP	5.46	4.44	5.50	6.50	5.00

Table 38 Relationship between objectives

The opinions ranged from "essential or strong relationship" to "Intermediate between demonstrated and extreme" relationship between two objectives all respondents.

Research question 2 *"What is the perceived dependency between the strategic objectives?"* may be answered as follows;

As far as may be concluded from this research, there appeared to be two dependencies between ach pair of strategic objectives. The first dependency exists in the valuation of importance between two objectives that implies a ranking. This dependency was explained in section 5.2.1 in the conclusion for research question1.

The second dependency exists in the valuation of the strength of the relationship between the two objectives. In order to offer an answer that relates to the survey form, the mean values were converted to integers by rounding off at the half point mark for each value.

Relationship between objectives	Intended	Pre-merger Compaq	Pre-merger HP
Delivery v.s Go-to-market	Demonstrated	Essential or strong	Essential or strong
Growth v.s. Partnerships	Demonstrated	Intermediate between strong and demonstrated	Essential or strong
Go-to-market v.s. Market share	Intermediate between demonstrated and strong	Intermediate between strong and demonstrated	Intermediate between strong and demonstrated
Delivery v.s. Growth	Intermediate between demonstrated and strong	Essential or strong	Essential or strong
Growth v.s. Go-to-market	Intermediate between demonstrated and strong	Intermediate between strong and demonstrated	Intermediate between strong and demonstrated
Market share v.s. Partnerships	Essential or strong	Essential or strong	Essential or strong
Delivery v.s. Market share	Essential or strong	Intermediate between strong and demonstrated	Intermediate between moderate and strong
Go-to-market v.s. Partnerships	Intermediate between demonstrated and strong	Intermediate between strong and demonstrated	Intermediate between strong and demonstrated
Growth v.s. Market share	Demonstrated	Demonstrated	Demonstrated
Partnerships v.s. Delivery	Essential or strong	Essential or strong	Essential or strong

Table 39 Relationship between objectives, intended and perceived

The conclusion below is supported by the Mann-Whitney test, which implied that the two social groups belong to one population.

Conclusion: the perceptions of “the strength of relationship between pairs of objectives” two social groups expressed appear to be similar.

5.2.4 Research question 3 “Are the objectives “Common” to all; is there no difference in perception of strategic objectives between the two social groups?”

Where the objectives were prioritised by ranking, the results showed that the difference between the two social groups are not very large, that the opinions of both social groups appeared to congruent enough to assume that both groups belonged to one population. The responses from both social groups did not appear to indicate a specific priority ranking for all objectives.

Where the objectives were pair-wise compared, the raw results indicated that both social groups appeared to belong to one population, but a significant difference in opinion between three out of five objectives appeared to be present.

As argued in the “Research question 2” section, the opinions of the two social groups appear to differ significantly. On the other hand, the differences between the two social groups do not appear to pass the 1.5 difference mark.

The “strength of relationships” between the objectives was generally assessed lower by both social groups than the intended values. Furthermore, the values of both social groups appeared to be grouped relatively close together. Generally, both social groups assess the strengths of the relationships between the objectives as lower than intended.

The Research question 3, “Are the objectives “Common” to all; is there no difference in perception between the two social groups?” may be answered as follows;

On one hand, the opinions would appear to stem from a single population. On the other hand, significant differences were found in the opinions about the importance of objectives.

Conclusion: objectives are not “common” to all.

5.3 Conclusions related to the research problem

Problem statement;

How can HPS senior management deal with the various interpretations of the strategic objectives by middle management?

Research question 1 *"What is the perceived priority of the strategic objectives?"*

The results from the survey could not identify perceived priority of each objective by ranking. This leads to the observation that the specific order of the priorities may need to be communicated in a more explicit manner. Doing so, may induce the right priority order into the manager's view.
The definition of the priority of objectives may not be based upon a ranking order alone.
The pair-wise comparison of the importance of objectives appears to be another way of assessing the priority of objectives in relation to another. This type of priority assessment may become more prominent when managers attempt to weigh alternatives against another. This weighing process, which could involve multiple objectives, could change the decision outcome against a decision which would, if possible, be made by applying the ranking alone.

Conclusion: the research infers that the ranking and the priority by pair-wise comparison would have to be addressed as well, when communicating priorities of objectives.

Research question 2 *"What is the perceived dependency between the strategic objectives"*

The research infers that the objectives are perceived between moderate to strongly related, generally is somewhat lower than the intended strength of the relationships. The differences vary significantly.

Conclusion: the strength of the relationship may need special attention when communicating objectives to the organisation.

Research question 3 *"Are the objectives "Common" to all; is there no difference in perception of strategic objectives between the two social groups?"*

The results of the straightforward ranking procedure infer that the two social groups themselves may be similar. There appears to be no general understanding of the straightforward ranking order in each social group.

The "priority of the objectives by pair-wise comparison" shows an explicit difference in opinion between the two social groups. The opinions gathered by pair-wise comparison differ significantly from the intended values.

The strength of relationships between objectives are generally perceived lower than intended. The opinions of the two social groups and the intended values vary significantly.

For both the "Importance of objectives" and "Strength of relationships" variables, the opinions between the two social groups seem to differ, but there is strong support for the hypothesis that both groups originate from one population.

Conclusion: there appears to be no explicit opinion for the ranking and both social groups have a significantly different opinion between the groups and the intended values, the objectives are not common to all.

All results in this report appear to lead to the observation that the definition of strategic objectives leaves room for individual or group interpretation.

The ranking appears to be unclear, no consensus was found in either social group. The social groups seem top have conflicting opinions about the importance of the objectives. The groups do appear to have a congruent opinion about the strength of the relationships between the objectives. In all cases, the opinion of the social groups appear to conflict with the opinion that represents the intended strategic values. This lead to the conclusion that there appears to be no common understanding of the strategic objectives in the population.

Furthermore, the managers appear to be unsure of how the strategic objectives should be communicated. In the light of this apparent uncertainty, the strategic objectives as defined by the Executive Vice President of HP Services may be evaluated.

General strategic objectives for HP Services

- ✓ Aggressively grow HPS
- ✓ Implement strong services go-to-market and customer engagement models
- ✓ Expand HP's leadership in the infrastructure services
- ✓ Use HP's strategic partnerships to complement HP's strengths and extend HP's reach
- ✓ Deliver against cost synergies and integration plan for the merger

In section 2.2.2 of this report, it was argued that objectives are statements of specific outcomes that must be achieved (Scholes & Johnson 2002), objectives should clear and decisive (Quinn 1991) and objectives should generally comply with the SMART acronym (Daft 2002).

The general strategic objectives do not seem to state specific outcomes that must be achieved, nor do they appear to be very clear. On one hand, the wording of the objectives appears to be decisive. On the other hand, the objectives themselves do not seem to point to an advantage over the competition. Under the assumption that all HPS managers agree with the strategic objectives and that these objectives may be realistic, none of the strategic objectives appear to be specific, measurable or time-based.

This leads to the observation that the strategic objectives may need further specification before the objectives may be used to communicate a strategy for HPS NL.

Conclusion: Before communicating the strategic objectives, these would have to be substantiated and further defined to be decisive, specific, measurable and time-based.

The open question: *"State in one sentence of +/- 30 words how you think HPS management should communicate the strategic objectives clearly and relevant to you"*.

The responses of the open question were subjected to a pareto analysis before inferences were made. In the case where the value “not specified” was the highest, the next values in line were selected, until the 20 % of occurrences, the pareto limit, was reached.

Nearly half of the respondents, 42 %, did not specify how the communication would have to take place and nearly 70 % of the respondents did not indicate who would have to perform the communication.

These two findings may need special attention, the managers appear unsure of how the communication of new strategic objectives should take place and who would be responsible for communicating this message. These results infer that there may be some insecurity in relation to the strategic objectives within the management team.

If these unspecified categories were ignored, then a different pattern emerges, which may point to the needs of the management team.

Of the “what” category, more than 20 % of the responses were valued at “Clarify, prioritise, explain direct contribution, relate to operations”, category and 29 % responses of the “how” category were valued at “interactive”. On the question of who would have to perform the communication, 13 % the response was that the managers themselves should do this and 7 % of the time the responses were that Executive manager should perform the communication.

Conclusion: Most respondents expressed a need to discuss and clarify the prioritisation of the strategic objectives, the direct contribution that may be made to the strategic objectives and how the strategic objectives may be related to operations. The preferred method would be live and interactive communication, performed by the managers with visible presence of the Executive Manager.

5.4 Implications for theory

The results infer that a top down model for strategic design may not provide sufficient clarity of the intended strategic direction of the senior managers towards the organisation. The interpretation of the intended strategic direction, combined with the experience and ideas of the middle management team result in an emergent strategy that appears to be congruent within the population.

The report identified several gaps that related to the strategic objectives. Information about these gaps, may aid senior managers to inform the middle managers better in relation to the intended strategic direction.

The use of the gap analysis model may be expanded into other fields, such as business opportunity selection in relation to the strategic objectives.

5.5 Implications for policy and practice

As far as the author can assess, the research performed in this report is new to the HP organisation. By combining the simple ranking with the pair-wise comparison to define and explain strategic objectives, the organisation might accomplish its mission more successfully.

In the earlier parts of the report, the types of strategies model of Mintzberg & Waters (1985) was presented and the different types of strategies were compared to the situation of HPS NL. The model also shows a feedback line that is identified as “strategic learning”. In the case of HPS NL, results from this report may be used to enhance the communication of the strategic objectives. The learning points from this report may serve the strategic learning process of HPS NL.

This part of the report is aimed to provide HPS management a plan of how some of the learning points of this report might be implemented.

The first learning point relates to the translation of the general HPS strategic objectives to the HPS NL strategic objectives. The local strategic objectives that are based upon the strategic objectives as defined by the Executive Vice President of HP Services may have to be adapted to fit their strategic purpose.

This would mean that the objectives would be stated as specific outcomes that must be achieved and comply with the SMART acronym. Furthermore, the objectives would have to be expressed in a clearly and indicate decisively how the achievement of the objective provides advantages over the competition.

The second learning point relates to the strategic planning and implementation process.

The definitions of priorities for strategic objectives; by ranking and pair-wise comparison, could be addressed during the planning and “catch-ball” phase of the strategic planning process. The research infers that strategic decisions related to objective’s priorities, may be more congruent then.

Additionally, the decision making process to select between strategically important business alternatives could be aided by using a methodology that would fit within the Hoshin planning hierarchy and make use of the pair-wise comparison of objectives and alternatives, such as the Analytical Hierarchy process (Saaty 1985).

5.5.1 HP S managers

The demographic report indicates that the composition of the management teams originating from both pre-merger companies in terms of years with the company and years in current position appears to be similar.

The gaps that were identified might be resolved by applying the model below (Billsberry 1981).

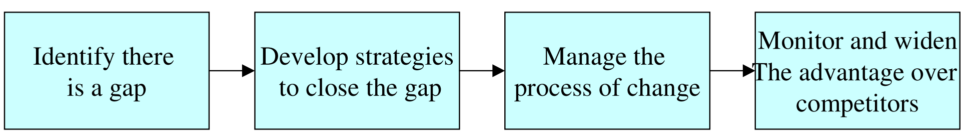


Figure 12 A model of a gap analysis

With the use of this gap analysis model the implementation plan may be explained.

The purpose of the plan is to provide HPS management a plan to communicate the new strategy to the new organisation and to help the HPS managers measure how well their perceptions and actions may be aligned with the new strategy.

5.5.1.1 Identify there is a gap

Several gaps were identified that are related to one another. Gaps between the two social groups were identified. The gaps may best be best expressed as “intended v.s. perceived” for all variables.

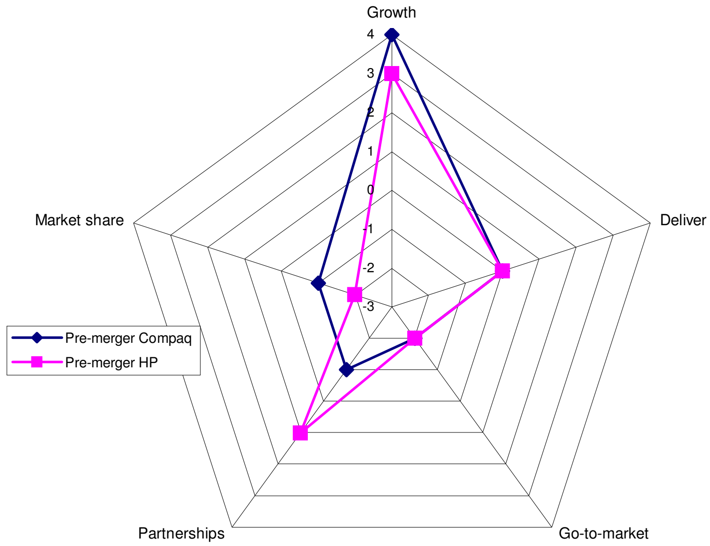
- ✓ priority by ranking
- ✓ priority by “pair-wise comparison of the strategic objectives”
- ✓ “strengths between the relationships of the objectives”

The intended values represents the target of the perceived values.

The first gap that was identified was the gap between the perceived and intended priority of the strategic objectives.
The values for the intended priority ranking was compared to the value of the perceived ranking derived from the pair-wise comparison of the importance of objectives of both social groups. The data of the priorities by ranking of both social groups appeared to be inconclusive.
The data from this gap measure may not be used to draw any conclusions, so these values are ignored for this report.

The intended ranking order may be regarded as still valid. These values may be used to identify the gap that is related to the order of objectives found by applying logic to the result from the “pair-wise comparison of importance of objectives”.
The graph below shows where the gaps are located and how large they are. This graph may be used to identify the objectives that need most attention for each social group. The objectives that are on the zero line may need less attention.

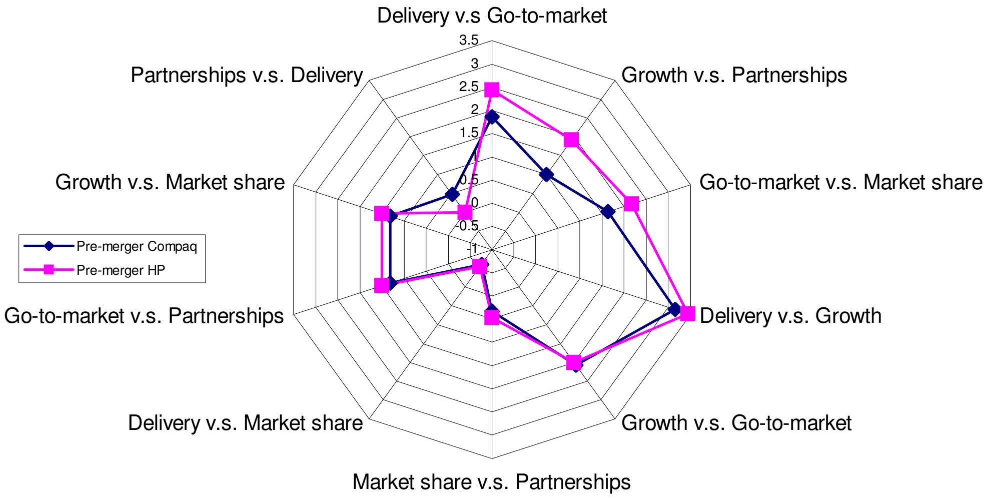
By showing the size of the gaps for each social group between intended and perceived, it could be envisaged how the perceived priority of the objectives could be brought in line with the intended priority.



The research suggests that the priorities should be communicated in such a way, that there is clarity about the ranking of the objectives and their priorities as applied by pair-wise comparison at the same time.

There is another gap, this gap exists between the perceived and intended strength of relationships between each pair of strategic objective.

The graphic below shows the each pair of strategic objectives and the distance of the gaps from the zero line for each social group.



The research could not show that the strength of the relationships would have an effect on the priority of the ranking or ranking by pair-wise comparison method.

The researcher assumes that the strength of the relation between objectives may influence the performance of each objective because of this relationship. This assumption is based upon the rationale that if a strategy is performing well against one of two strongly related objectives and insufficient against the other, the combined performance may still be insufficient.

Under this assumption, it would be important to assure all involved have the same perceptions of the strengths between the objectives, for the objectives to be "common to all".

5.5.1.2 Develop strategies to close the gap

As a first step, the objectives could be defined as statements of specific outcomes that must be achieved and expressed clearly and decisive, showing how the achievement of the objective provides advantage over competition. The objectives could be tested against the SMART acronym to assess their fitness for the purpose.
As the second step, the radar graphs may be used as a communication tool to explain gaps to managers and for managers to assess gaps.
A third step may be the use of a reference card, which shows the priorities and relationships between objectives by the use of proper wording. Proper wording would mean that the order and magnitude of the priorities and relationships are expressed clearly.
Appendix 7 shows an example of such a reference card. The card should be changed whenever priorities change.

The survey methodology that was used for this report may be automated as part of the strategic performance measure process, which already takes place. With the resulting graphs as a communication tool, the gaps me be explained. The measure of performance of strategies to close the gaps may be expressed in "points" over a period of time, which may further aid in closing gaps.
As experience increases with the procedure, the survey may be less time consuming and provide substantial value to the managers. The survey method could be used to assess the opinion of the whole group of professional managers about certain strategic issues.

When intended priorities of objectives change, this same method may be used to guide the managers on how to close a possible new gap.
If the gap analysis would be part of the strategic performance assessment process, HPS would be able to capture, process and feed the results back to the managers. This might benefit the organisation, but more importantly, also the managers, as their personal reward structure is based upon achieving or exceeding agreed objectives.

5.5.1.3 Manage the process of change

The gap analysis may be regarded as a small part of the strategic management process, it should not require ore time and effort than strictly necessary and the results would have to be useful for all. Compared to the initial gap analysis, later analyses would not need as much time and attention in a later stage of the merger process. In this later stage, the survey method of the report would have to be automated to save time, capture results on-line and to provide immediate feedback to the manager. The usefulness could be made operational by using showing how a small gap enhances the company's strategic performance and how this may result in personal success for the managers.
To gain momentum, management's attention would be needed to embed the gap analysis process into the organisation.

As indicated before, the results from the open question appears to infer that most respondents would prefer clarification, prioritisation of the strategic objectives, the direct contribution the managers can make and how the objectives may be related to operations.This communication should take place in a way that requires personal involvement of all parties, and the communication happens in a live and interactive way performed by the managers with visible presence of the Executive Manager.
In this case the Executive Manager could present the results of the gap analysis and the way forward how to close the gaps for each social group.
Later the automated survey method could be presented to the managers who may discuss the use and benefits to the organisation and themselves during this presentation. New ideas might sprout from such a discussion which may give the automated survey method more practical value. Involvement of the managers in this phase may build a larger supporting platform for the method.
After implementation, the managers may use the method to help their teams align their strategic team objectives to the organisations objectives by a similar method.

5.5.1.4 Monitor and widen the advantage over competitors

Once the method is used and part of a standard process it may serve as a "thermostat" to keep the gaps low, even if priorities change, as managers learn to "read the graphs and plan their actions to close the gaps even more quickly.

5.6 Further research

In order to make full use of the open questions in surveys, the methodology to identify categories and their values, a methodology may be developed. This methodology might be useful to gather qualitative data with a qualitative method.

A method to select business opportunities may be researched that uses pair-wise comparison of decision elements.

5.6.1 Analytical Hierarchy Process

The Analytical Hierarchy Process (AHP) (Saaty 1985) is a decision support model that intends to decompose (structure) a system and it's environment into mutually interacting parts, then measuring and ranking the impact of the parts on the entire system. This way, a synthesis may be build that explains the model in a more holistic way, whilst maintaining the integrity of the system, it's parts and the interaction of the system on it's environment. AHP may be used when consensus amongst a limited group of individual is needed, when the stakes are high if the plan fails and where the options and criteria are limited. In the selection process for major business opportunities, these prerequisites usually apply.

Using the AHP methodology involves four steps;

1. Structuring the decision hierarchy by breaking down the decision problem into a hierarchy of interrelated decision elements; Objectives, criteria, decision alternatives
2. Collecting input data, depicted by matrices of pairwise comparisons, of decision elements
3. Using the eigenvalue method to estimate the relative weights of the decision elements
4. Aggregating the relative weights of decision elements to arrive at a set of ratings for the decision alternatives

The formation of the AHP hierarchy is based upon two assumptions.

1. It is expected that each element of a level in the hierarchy would be related to the elements in the adjacent levels
2. There is no hypothesised relationship between the elements of different groups at the same level.

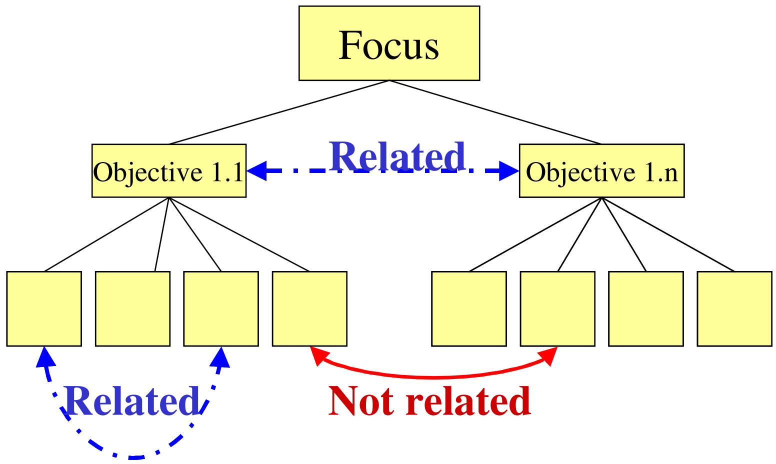


Figure 13 AHP basic assumptions

AHP aims to represent the elements of any problem in a systematic hierarchical manner. The basic principle is to apply a series of pair-wise comparison judgements of the decomposed parts of a problem to identify the relative impact of each component in the hierarchy. During the process the judgements may be documented, which allows re-examination of the process and evaluation of the decision process.

The judgements are translated into values that are synthesised to derive priorities among criteria that are used to weigh alternative solutions (decisions) against another.

The use of groups that participate in the decision making process is the preferable way to gather reliable judgements, since the judgements may be tested for correlation between team members. Furthermore, AHP does not necessarily involve a large sample.

AHP is driven by three basic principles;

- ✓ Hierarchic representation and decomposition, this is called the hierarchic structuring
- ✓ Priority discrimination and synthesis, ranking the elements by relative importance
- ✓ Logical consistency, ensuring that the elements are grouped and ranked consistently according to a logical criterion

Several hierarchies exist, of which the dominance hierarchy which descends from one top level down to several layers that may branch out, much like a military organisation tree is the more common form and the type of hierarchy used in the AHP.

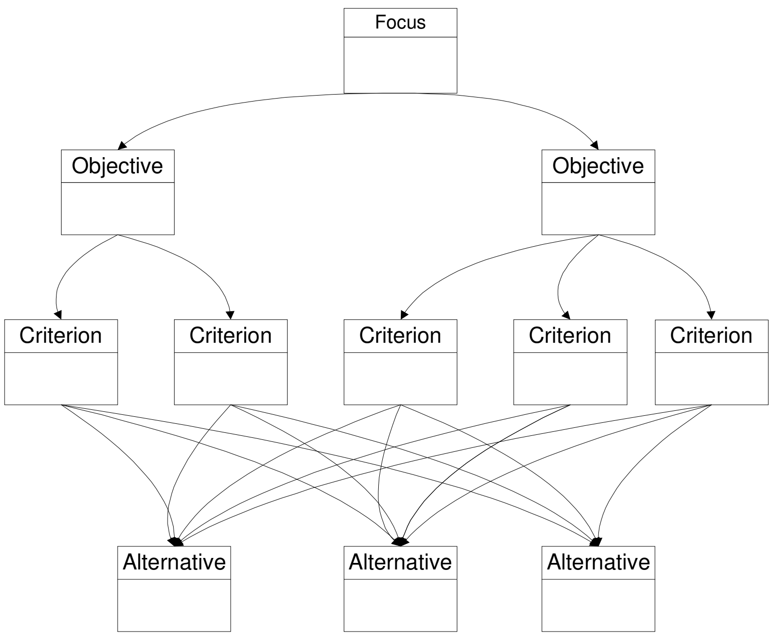


Figure 14 Analytical hierarchy model

The Analytical hierarchy model may be built by decomposing the system using a structural or functional approach. The basic hierarchy itself is composed of four hierarchy levels;

- ✓ Focus, which is the overall objective or the problem that needs to be analysed
- ✓ Objectives that follow from the statement of the focus
- ✓ Criteria that will be used to evaluate the solution or whether the objectives may be attained
- ✓ Alternatives that may be evaluated against one another.

When a hierarchic representation of the problem is defined, the priorities of the decision elements need to be established. The priorities are established by applying pair-wise comparison between the decision elements that fall below a decision element the hierarchy. The method places the lower decision elements in a matrix and notes the preference of these decision elements in the matrix using a pre-defined scale of comparison.

This judgement matrix is filed in for each hierarchy level that has a level above it.

Each cell of the judgement matrices is then weighed to estimate the relative weights of the decision elements. This also means that the alternatives are weighed against each criterion. By aggregating the relative weights of decision elements it would be possible to attain a set of ratings for each alternative. By adding up the valued weighing, the alternative that fits the criteria best may be indicated. Such a methodology may be the basis for a decision support system to selct major business opportunities.

5.6.1.1 Conclusion

By applying the same method of pair-wise comparison in different settings, it would be possible to assess the perception of strategic objectives and evaluate business opportunities.

The value and feasibility of the decision making process may be an interesting subject for further research.

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Appendices

Appendix 1 **HP integrated planning and reporting framework**

Appendix 2 **Hoshin planning**

Appendix 3 **Cover Letter Executive Sponsor**

Appendix 4 **Survey Form**

Appendix 5 **Data SPSS 01.08**

Appendix 6 **Speaker's keynotes Anne Livermore**

Appendix 7 **Reference card strategic objectives**