

MARKING CRITERIA AND STUDENT FEEDBACK

This section details the assessment criteria. The *extent* to which these are demonstrated by you determines your mark. The marks available for each criterion are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Common Assessment Criteria Applied	Marks available	Marks awarded
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions.		
You have included a range of relevant research and used well for the majority of the assignment.	30	16 16
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.		
You have included a lot of theory and concepts and have elaborated on important areas, providing depth and breadth.	25	18 18
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence		
You have synthesised and evaluated the main points well, and applied them to the issues in the scenario.	15	11 11
4. Practical Application and Deployment Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems.		
You have applied the relevant theories and concepts very well to the scenario, and provided some interesting suggestions.	15	11 11
5. Skills for Professional Practice Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation.		
An excellent presentation, well done.	15	12 12

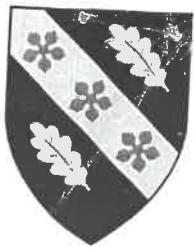
Assignment Mark Overall (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)

Late Submission Penalties (tick if appropriate)

Up to one-week late

Over one week late

68
68 %



HNC/D MECHANICAL AND ELECTRICAL ENGINEERING ASSIGNMENT SPECIFICATION

Student name:	Gavin Charter-Roberts			Student P number:	
Programme:	HNC/D Mechanical and Electrical/Electrical Engineering				
Module:	Management, Innovation and Sustainability	Module Level (4, 5, 6):	5		
Module code:	M5X01176	Contribution to Overall Module Assessment (%):	50%		
Lecturer:	Timothy Clark / Coral Planas	Internal Verifier:	Rabya Kadhim		
Assignment Title:	Management, Innovation and Sustainability	Assignment No (x of x):	1 of 1		
Hand Out Date:	9 th November 2017	Submission deadline:	29 th March 2018		

Referencing:	In the main body of your submission you must give credit to authors on whose research your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have read or quoted in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, <u>title of book</u> , edition, publisher: place of publication).						
Disclosure:	I declare that this assignment is all my own work and that I have acknowledged all materials used from the published or unpublished works of other people. All references have been duly cited.						
Student's Signature:	Assignments will not be accepted without a signature here	Date:					
Turnitin: Lecturer to tick to indicate if an electronic version of the assignment must be submitted to Turnitin. Note: the Turnitin version is the primary submission and acts as a receipt for the student. Both electronic and paper versions MUST be submitted by the same deadline. No marks will be released until both submissions are received. Late submission of either the electronic or paper version will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, Refer. Only Year Tutors and the Programme Director may grant an extension.			<table border="1"> <tr> <td>YES</td> <td>/</td> </tr> <tr> <td>NO</td> <td></td> </tr> </table>	YES	/	NO	
YES	/						
NO							

Learning Outcomes tested (from module syllabus)	Assessment Criteria To achieve each outcome a student must demonstrate the ability to:
Show detailed knowledge and understanding of the relationship between an engineering organisation and the industrial, socio-economic and environmental context in which it is found.	1. Research 2. Evaluate 3. Analyse 4. Reference 5. Layout the Report 6. Structure the Report 7. Create and deliver a PowerPoint presentation
Demonstrate subject specific skills and cognitive skills in recognising and evaluating accounting methods, planning, costing and monitoring projects, workforce motivation and team dynamics.	
Demonstrate key transferable skills in management, leadership and decision making.	

- Please submit the assignment parts in a suitable report folder or stapled– **NOT IN POLYPOCKETS**
- This form (ALL PAGES) MUST be at the front of the paper submission. Assignments will not be accepted without this form as it is a requirement that you sign the disclosure regarding referencing convention.
- DO NOT put this form into Turnitin or it will match many similarities with other students' submissions.

TASK DESCRIPTION

Introduction

This module introduces the student to the social and commercial context of the engineering industry in terms of business environments including:

- Management organisation and administration
- Regulation
- Legislation.

Assignment Scenario

You have been working as a Mechanical Engineering Technician or Electrical Engineering Technician for a small to medium sized engineering company manufacturing parts for the aircraft industry. Your duties include:

- i. CNC machine setting for manufacturing production and systems maintenance and/or
- ii. Electrical systems installation and maintenance.

In recent years the company has seen a steady decline in turnover and profit, mainly resulting from increased competition from within the UK and overseas along with a lack of investment in technologically advanced systems and machinery.

The company has advertised the position of 'Engineering Project Manager' with a good salary, private health insurance and a final salary pension. The position is being advertised internally and externally.

Applicants are required to:

- a. Deliver a 15 minute PowerPoint presentation outlining the key factors that influence organisational success and to balance them against the key factors that could potentially lead to organisational failure and,
- b. Write a structured report (minimum 3000 words) encompassing the factors outlined in part (a) above detailing how those factors can be utilised to address the following issues:
 - Falling Sales
 - Limited European and International customer base
 - 10% reduction in production targets on previous year
 - 5% increase in product rejection rates
 - Escalating maintenance costs
 - Unusually high turnover of staff
 - 3 '7 day' + lost time accidents

Your research should result in a professional report and PowerPoint presentation, the report and the presentation can then be delivered and submitted as required as part of the job application process.

Your report should include;

- A title page
- Table of contents
- Introduction
- Objectives
- Theory / Research
- Methodology
- Results
- Analysis
- Discussion / Evaluation
- Conclusion
- References

Word count: The recommended word count is 3000 words.

GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

You will need to consider:

- **Business Organisations And The Environment:** types of business organisations; analysis of the organisation and its external environment; the engineering industry in the UK and global economy.
- **Regulation and Legislation:** product liability and contractual obligations, data protection legislation, protection of intellectual property.
- **Business Ethics:** Corporate social responsibility, the engineer's responsibility to society.
- **Management and Group Behaviour:** management and leadership styles; management roles; management decision making and problem solving; management of change; motivation; quality management; group behaviour and dynamics; individual behaviour; personality and perception.
- **Marketing:** the marketing mix; sponsorship funding models; developing a business plan for a Small Business Unit.
- **Project Management:** Project planning techniques, project monitoring, managing risk.
- **Brexit:** Comment on the potential effects (positive or negative) this will have on the economy in general and more significantly the company in which you are employed.

The report must be structured to include a contents page and a page of references which record all sources of information used in the report adhering to the 'Harvard' referencing system.

Any quotations or citations within the report must also be referenced using the correct method as detailed in the 'Harvard' referencing system.

MARKING CRITERIA AND STUDENT FEEDBACK

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		30	
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.			
		25	
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence			
		15	
4. Practical Application and Deployment Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems.			
		15	
5. Skills for Professional Practice Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation.			
		15	

Assignment Mark Overall (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)

Late Submission Penalties (tick if appropriate)

Up to one-week late

Over one week late

%

COMMON ASSESSMENT AND MARKING CRITERIA

Assessment Criteria	OUTRIGHT FAIL	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	EXCEPTIONAL
	0-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-100%
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions	Little or no evidence of reading. Views and findings unsupported and non-authoritative. Referencing conventions largely ignored.	Poor evidence of reading and/or of reliance on inappropriate sources, and/or indiscriminate use of sources. Referencing conventions used inconsistently.	References to a limited range of mostly relevant sources. Some omissions and minor errors. Referencing conventions evident though not always applied consistently.	Inclusion of a range of research-informed literature, including sources retrieved independently. Referencing conventions mostly consistently applied.	Inclusion of a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing conventions, consistently applied.	A comprehensive range of research-informed literature embedded in the work. Excellent selection of relevant and credible sources. High-level referencing skills, consistently applied.	Outstanding knowledge of research-informed literature embedded in the work. Outstanding selection of relevant and credible sources. High-level referencing skills consistently and professionally applied.
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.	Major gaps in knowledge and understanding of material at this level. Substantial inaccuracies.	Gaps in knowledge, with only superficial understanding. Some significant inaccuracies.	Evidence of basic knowledge and understanding of the relevant concepts and underlying principles.	Knowledge is accurate with a good understanding of the field of study.	Knowledge is extensive. Exhibits understanding of the breadth and depth of established views.	Excellent knowledge and understanding of the main concepts and key theories. Clear awareness of challenges to established views and the limitations of the knowledge base.	Highly detailed knowledge and understanding of the main theories/concepts, and a critical awareness of the ambiguities and limitations of knowledge.
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence	Unsubstantiated generalisations, made without use of any credible evidence. Lack of logic, leading to unsupportable/missing conclusions. Lack of any attempt to analyse, synthesise or evaluate.	Some evidence of analytical intellectual skills, but for the most part descriptive. Ideas/findings sometimes illogical and contradictory. Generalised statements made with scant evidence. Conclusions lack relevance.	Evidence of some logical, analytical thinking and some attempts to synthesise, albeit with some weaknesses. Some evidence to support findings/ views, but evidence not consistently interpreted. Some relevant conclusions and recommendations, where relevant	Evidence of some logical, analytical thinking and synthesis. Can analyse new and/or abstract data and situations without guidance. An emerging awareness of different stances and ability to use evidence to support the argument. Valid conclusions and recommendations, where relevant	Sound, logical, analytical thinking; synthesis and evaluation. Ability to devise and sustain persuasive arguments, and to review the reliability, validity & significance of evidence. Ability to communicate ideas accurately and convincingly. Sound, convincing conclusions / recommendations.	Thoroughly logical work, supported by evaluated evidence. High quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Strong, persuasive, conclusions, justifiable recommendations.	Exceptional work; judiciously selected and evaluated evidence. Very high quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Highly persuasive conclusions
4. Practical Application and Deployment Effective deployment of appropriate methods, materials, tools and techniques; extent of skill demonstrated in the application of concepts to a variety of processes and/or contexts; formulation of innovative and creative solutions to solve problems.	Limited or no use of methods, materials, tools and/or techniques. Little or no appreciation of the context of the application.	Rudimentary application of methods, materials, tools and/or techniques but without consideration and competence. Flawed appreciation of the context of the application.	An adequate awareness and mostly appropriate application of well established methods, materials, tools and/or techniques. Basic appreciation of the context of the application.	A good and appropriate application of standard methods, materials, tools and/or techniques. Good appreciation of the context of the application, with some use of examples, where relevant.	A very good application of a range of methods, materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive use of examples, where relevant. Evidence of some innovation and creativity.	An advanced application of a range of methods, materials, tools and/or techniques. The context of the application is well considered, with extensive use of relevant examples. Application and deployment extend beyond established conventions. Innovation and creativity evident throughout.	Outstanding levels of application and deployment skills. Assimilation and development of cutting edge processes and techniques.
5. Skills for Professional Practice Demonstrates attributes expected in professional practice including: individual initiative and collaborative working; deployment of appropriate media to communicate (including written and oral); clarity and effectiveness in presentation and organisation.	Communication media is inappropriate or misapplied. Little or no evidence of autonomy in the completion of tasks. Work is poorly structured and/or largely incoherent.	Media is poorly designed and/or not suitable for the audience. Poor independent or collaborative initiative. Work lacks structure, organisation, and/or coherence	Can communicate in a suitable format but with some room for improvement. Can work as part of a team, but with limited involvement in group activities. Work lacks coherence in places and could be better structured.	Can communicate effectively in a suitable format, but may have minor errors. Can work effectively as part of a team, with clear contribution to group activities. Mostly coherent work and is in a suitable structure.	Can communicate well, confidently and consistently in a suitable format. Can work very well as part of a team, with very good contribution to group activities. Work is coherent and fluent and is well structured and organised.	Can communicate professionally and, confidently in a suitable format. Can work professionally within a team, showing leadership skills as appropriate, managing conflict and meeting obligations. Work is coherent, very fluent and is presented professionally.	Can communicate with an exceptionally high level of professionalism. Can work exceptionally well and professionally within a team, showing advanced leadership skills. Work is exceptionally coherent, very fluent and is presented professionally.

Student Self Evaluation Form

Student name:	Charlotte - Gawain Roberts		Student P number:	
Programme:		Year of programme		
Assignment Title:				

This section repeats in brief the common assessment criteria detailed on previous pages. The *extent* to which these are demonstrated by you determines your mark. Using these criteria, tick the box that best indicates the level of achievement you feel you have achieved with regard to each of them.

Common Assessment Criteria Applied	Level of Achievement						
	REFER		3 rd	2:2	2:1	1 st	1 st
	OUTRIGHT FAIL	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	EXCEPTIONAL
1. Research-informed Literature	0-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-100%
	☐	☐	☐	☐	☐	☐	☐
2. Knowledge and Understanding of Subject	0-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-100%
	☐	☐	☐	☐	☐	☐	☐
3. Analysis	0-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-100%
	☐	☐	☐	☐	☐	☐	☐
4. Practical Application and Deployment	0-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-100%
	☐	☐	☐	☐	☐	☐	☐
5. Skills for Professional Practice	0-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-100%
	☐	☐	☐	☐	☐	☐	☐

PLEASE COMMENT ON AREAS IN WHICH YOU FEEL THAT YOU HAVE PERFORMED WELL	PLEASE COMMENT ON AREAS YOU FEEL THAT YOU NEED TO DEVELOP

Student's Name		Date	
Student's Signature			

Management, Innovation & Sustainability

Author: Gauvain Jay Chartier-Roberts

Student ID: CHA16832389

Course: HND Electrical & Electronic Engineering

Lecturers: Coral Planas, Tim Clark

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Introduction

In a competitive global business environment, the success or failure of a business hinges on a number of key factors. The most successful businesses display and demonstrate a keen understanding of these factors, and create policies and workplace environments geared towards maintaining and extending their success and competitive advantage. History is littered with failures, and even the biggest companies are not immune should they fail to adapt. Some notable examples include AOL etc. Ultimately, it's the ability of an organisation to continually critically reflect on its performance and push through changes and follow best practice that will determine its success or failure. ✓

Our industry is predominantly an export industry, yet despite the recent vote to leave the EU, it continues to show phenomenal growth, growing 39% between 2011 and 2016 (Tovey, 2016). Having the world's second largest aerospace industry, the UK has a highly skilled and experienced engineering workforce, yet the current performance of our company sits in stark contrast to this success. ✓

As a current employee, my report seeks to highlight the key factors that are contributing to the company's poor performance in the marketplace, decline in production and product quality and low staff morale. I will also demonstrate how changes in leadership style, investment and product marketing can be carefully managed to successfully bring about a positive change in our fortunes.

✓
a very
strong
introduction
(Tm)

The Company Situation

The company is suffering from a number of problems:

- Falling sales
- Limited EU and International customer base
- 10% reduction in production targets on previous year
- 5% increase in rejection rates
- Escalating maintenance costs
- Unusually high turnover of staff
- 3 '7-day' + lost time accidents

The first step in addressing the situation involves performing a PESTLE analysis to gain insight into the broader external challenges faced by the company. The second step is to perform a SWOT analysis to highlight areas of business strengths and weakness, and to identify the threats and opportunities.

PESTLE Analysis

PESTLE stands for the political, economic, social, technological and environmental factors that might have some affect on the business operation.

Political factors

Without a doubt, the biggest challenge faced by business is the uncertainty surrounding the process of leaving the UK. After the financial collapse of 2008 and the difficulty in obtaining credit, economic recovery has been relatively slow and the business has been left behind in terms of investment. This has put the company in jeopardy, particularly with Brexit causing a drop in the value of sterling and the lack of direction from the government causing further uncertainty in the markets. With access to the free-trade environment of Europe almost certain to disappear in the short to medium term, trade tariffs could severely impact sales and productivity.

In the longer term post-Brexit, the government will be looking to conduct new favourable trade deals with growing economies around the world, and we should prepare a strategy for both dealing with the short term uncertainty and building foundations to exploit long term opportunities.

Economic factors

At this particular time, economic and political factors have become far more intertwined than usual, and several key economic factors are mentioned above. However, in the short term interest rates look set to stay at their low levels which will aid borrowing – but this could change given rising inflation (due to the weak value of sterling) which will encourage the Bank of England to increase interest rates.

Strengthening economies abroad present opportunities for us to explore new markets, particularly in Asia

Social factors

The UK is losing manufacturing expertise and human capital as employment practices and the structural nature of industry changes (and indeed has been transitioning from a manufacturing to a service industry for the past few decades). Vocational subjects have declined in favour of more academic education paths, although there has been a recent shift back towards the trades. Workforces are more mobile and more able to apply their skills where their earning potential is greatest – conversely, businesses are able to move to areas where labour is cheap.

✓ a detailed PESTLE which includes facts that are all relevant to the scenario

Technological factors

A connected world and global trade links mean that trade and communication are not necessarily limited by time zones or distance. The internet allows access to our suite of products and services from anywhere on the planet, and even language barriers can be overcome with online translation programs. Technology and the use of social media can be instrumental in marketing.

Materials technology and advanced composite materials could offer novel ways of changing our products or indeed lead to the development of new products.

Legal factors

Health & Safety legislation and other regulatory laws pose serious questions regarding our work environment – our statutory duty of care must be paramount given several recent and serious 7day+ lost time accidents. Current guidance related to manufacturing and engineering is currently under review by the Health & Safety Executive (Health And Safety Executive, 2018), and it would be beneficial for our Safety Manager to be fully conversant with developments in this field, and to ensure current standards of safety are met.

✓ (Tm)

Environmental factors

Public consciousness of what constitutes an environmentally responsible company is increasing, and we must be aware of our impact on the local environment, and look at ways to lessen our carbon footprint and build public awareness of our activities.

More efficient processes, machinery and technology could reduce our energy usage, lowering overhead cost. ✓

SWOT Analysis

Using a SWOT analysis we can focus on what we do well and where we face challenges.

With regard to the PESTLE analysis, we can build up a more specific picture of the threats we face and the new opportunities we can exploit. ✓

Our Strengths

- Workforce expertise
- Niche market, few direct competitors
- Established production capability
- Former reputation may still engender some goodwill ✓

Our Weaknesses

- Declining reputation with customers
- High workforce attrition and turnover – loss of experienced staff
- Unsatisfactory manufacturing and quality control standards and targets
- Lack of investment in factory assets
- Outdated machinery and high maintenance costs
- Health & Safety issues and low workplace morale levels leading to staff absence
- Falling revenues ✓

Opportunities

- Retain experienced staff, training opportunities for new staff
- Investment in factory upgrades across the board to increase product quality and production
- Exploring new and alternative markets/industries for products ✓

- Expanding range of products
- Shift in management structure and working environment
- Weak value of Sterling makes exports attractive
- Source local suppliers to offset increased material import costs

Threats

- More agile competitors at home and abroad – global competition
- Brexit implications – tariffs and customs, barriers to trade in the short term
- Weak value of Sterling making imported materials more expensive

The goal is to return the business to profitability and ensure its commercial success. As the factors for the decline of the business have been identified, we can use the SWOT analysis to identify why these issues have arisen, and outline how they can be ameliorated and contribute towards the goals of the business.

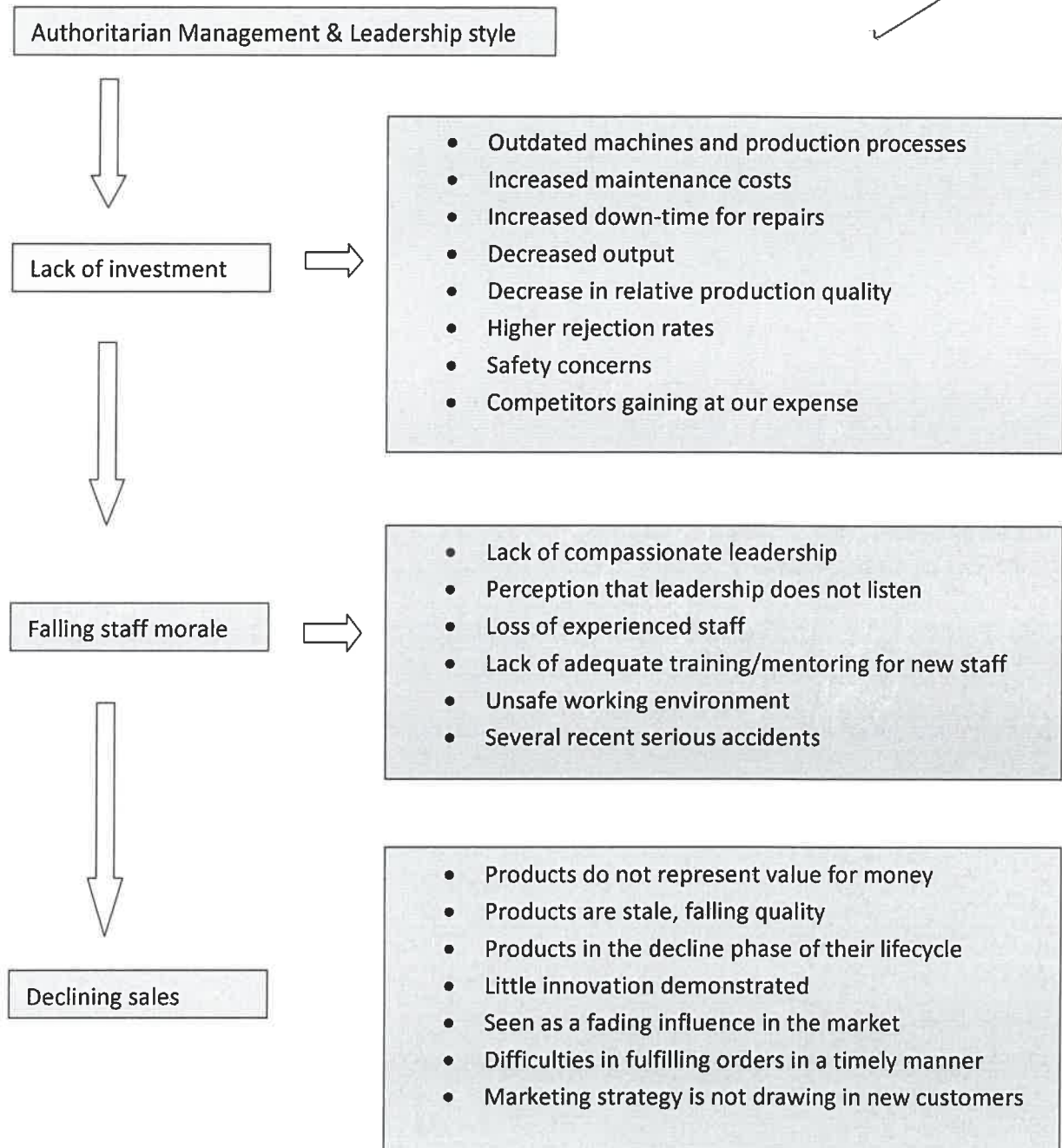
a really
well thought
out SWOT
analysis. A
strong starting
point for further
analysis

Tru

Business Success

The steady decline of the company's fortunes is therefore attributable to a combination of factors, and from my perspective it appears that this systematic decline has flowed from the management structure downwards.

In my opinion, failures in management have caused a domino-effect throughout the company.



Excellent,
an effective
method of
describing your
findings

In addressing the decline it is worth outlining how the current management style operates and why it contributes negatively to many facets of the business. In briefly assessing alternative styles we can begin to chart a course to recovery.

Problem 1: Current management style

The current management style could be called authoritarian or autocratic (Cherry, 2018) meaning all decision making is very tightly controlled from the top-down. Middle management and the employees in general are dictated to and expected to strictly follow directions from senior management.

Although in some circumstances this style can be useful, for example when quick decisions are needed or if an unskilled workforce is being overseen, in our case decisions have not been taken in a timely manner as it's been more a case of "management knows best", rather than management listening to, and taking notice of their highly skilled and experienced staff.

Why has this style become problematic? First we will talk about falling staff morale and the knock-on effects for the business. As the company's fortunes have declined, so the senior management have tightened their grip over the workforce. Employee feedback, autonomy, creativity and flexibility has been curtailed in favour of one-way communication with strict goal setting and working directives which take no account of an employee's expertise, morale or sense of loyalty and job satisfaction.

*How do we know this?
What are the signs?*

By referring to the motivational theory behind Maslow's hierarchy of needs (McLeod, 2017), we can begin to understand the effect on morale, motivation and turnover of staff. The hierarchy sets out a general pattern of needs that humans seek to fulfil –with satisfaction of one need motivating us to reach out to fulfil the next.

This is not necessarily a linear progression, but it is fair to say that

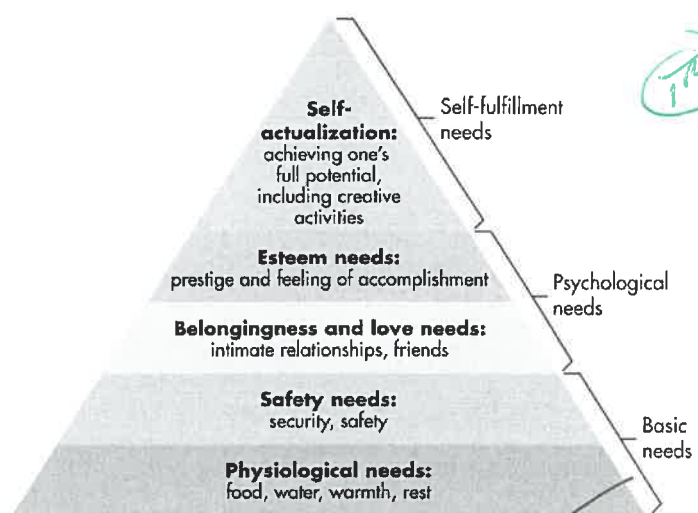


Figure 1: Maslow's hierarchy of needs (source: <https://simplypsychology.org/maslow.html>)

failing to fulfil a basic of need such as eating, precludes one from being motivated to put in a hard day's work.

*theorist?
date?*

We need not concern ourselves with the bottom tier of physiological needs, but problems arise as soon as the second basic need tier – the needs regarding safety.

In one respect we can consider the direct and personal safety of employees. It is accurate to say that there have been some serious issues with health and safety at the site, including several serious accidents. Although it is everyone's responsibility to ensure their activities are carried out with due care and attention, it could be that a culture is developing where in order to meet the strict goals of management, corners are being cut – a blind eye turned to hazards. Not only does this lead to a situation where personal injury might occur, but also that product quality suffers. Ultimately, this lowers morale.

In another respect we can consider the job security that employees feel. Experienced staff are already leaving – to be increasingly replaced by inexperienced staff. They may be jumping ship as they see the company decline, thinking that the lack of appropriate management shows that their future, tied to that of the company, might be in jeopardy. High staff turnover is not limited to long-term staff, with newer employees also moving on at a higher rate. It is not hard to see why a new employee might fear for their job security as they see standards slipping, new faces appearing regularly and a lack of adequate training being offered. ✓

The third tier, belonging and love, is a psychological need and represents the social aspects of an employees' wellbeing. It is important that employees feel part of a group or family, with common needs all working towards the same goal. This is upset by the apparent lack of trust and faith that the authoritarian style of leadership shows. Employees are not trusted to use their judgment, and when their feedback is not welcome, that connection is broken and it becomes very much a "them-and-us" situation. The employee loses that sense of being part of a family or something greater and may leave, or indeed lacking that avenue, will cease to perform their job as well – contributing further to the woes of the company. ✓

The next tier represents self esteem, respect from others, freedom and the need to progress. It is self-evident that the authoritarian style of management strips away any sense that the employee is valued for their contribution, that their work is differentiated, that they have a say in how they conduct their work or that their future needs and skill set is regarded as

1 pc

important. Without that feeling of self-worth, that they are contributing, that they are making progress, that they are valued – what reason is there (beyond being paid) for an employee to strive for the success of the business? Bear in mind that this attitude will extend beyond the confines of work and impact their life outside, and lead to a more general disdain for, and negative perception of, the company.

The top tier involves self-actualisation – it is very unlikely under the current structure that anyone has approached this level of motivation.

A troubling outcome of these needs not being met could manifest itself as the formation of tightly-knit groups of disgruntled employees. Looking inward to themselves to satisfy these needs might lead to destructive adversarial behaviours (towards management) and working practices that could jeopardise any recovery measures the business wants to take.

In summary, staff morale is suffering due to the working conditions imposed by the style of management employed. By failing to provide a safe working environment in terms of physical safety and job security, employees are less motivated to perform their tasks to a good standard, less likely to feel like they belong, unlikely to feel a sense of worth and take pride in their job, and very unlikely to find a sense of fulfilment.

Solution: Adopt a new management style

The focus of changing the management style is to

- rebuild the bond of trust between management and staff,
- raise staff morale, motivation, retention and expectations
- provide a physically, and mentally safe working environment
- improve product production, quality and output
- restore market competitiveness and increase market share – and profit

It will do this by

- investing in technology and infrastructure
- involving staff in decision making with a flatter management hierarchy
- investing in research and development
- developing an aggressive marketing and pricing strategy

a very well written description of the management theory.

Tree

To this end I will be advocating for a change from an authoritarian structure to a paternalistic structure (Types of Management, 2011). I predict it will solve many of the current problems and give a new sense of purpose and direction to the company and its staff. Best suited to small and medium sized business such as ourselves, and although suited to new companies starting out, I believe the same approach can work well in this situation where we really need to have the impression of starting-over (wiping the slate clean if you will). However measures need to be taken quickly in order to avoid any further loss of our experienced staff, as it is their expertise and knowledge that will amplify the success of the new structure.

whose model
is it though?
date?

good

In this structure, employees will be consulted and their feedback taken into consideration when decisions need to be made by management. Given the current state of relations and mix of old and new staff, I believe this is the best way to begin to re-engage our employees in the running of the company. Decisions will be taken with the best interest of staff taken into account rather than simply dictating procedures and expecting staff to work like robots. Staff grievances and suggestions will be acted upon, and they will feel listened to. This will start to build trust and loyalty and raise general morale. In some respects there are echoes of an authoritarian style in terms of the decisions being taken by management, but I believe a transition to this style will cause the least friction while bringing the most rapid improvements.

good

I anticipate that fulfilling the need for safety will come from having their physical environment improved (through investment outlined below), and from seeing the company take steps in becoming a competitor once more. The need for love and belonging will come from their engagement with management and the visible signs that their suggestions are being listened to, that they are valuable, and that action is being taken. Concurrent with this I see the development of those needs for self-esteem and respect, offering a two-for-one benefit in the rapid turn-around in morale. This should really help immediately retain those experienced staff that will be instrumental in bringing on new workers and developing training programs.

Along with other suggestions outlined below, this boost in staff morale should see productivity increase, staff turnover decrease and an improvement in time lost to accidents and absence.

Some excellent & practical ideas to improve failings

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In future, a further transition to a democratic style (Juneja, 2018) of management might be appropriate, but at this time it is my opinion that there is not sufficient trust between management and staff to justify moving to such an open-forum decision making structure.

Problem: Lack of investment

In my opinion, some of the misfortunes that have befallen the company stem from a failure to have, or to stick to a plan regarding the useful lifetimes of plant equipment. Investment has stalled, possibly in an attempt to save money as sales have decreased, but this is a self-defeating strategy.

Falling product output is indicative of the problems in our manufacturing capability. Contributing to this has been increasing down-time for repairs and maintenance and increasing rejection rates. As product specifications and tolerances have become tighter, less of our output is classed as acceptable, leading to higher rejection rates. Management, to their credit, have reduced production targets, but this makes it harder to fill customer orders in a timely manner – employees recognise this as a symptom of a failing business, and customers who expect better service will go elsewhere.

Ultimately, costs are driven up through lost productivity and efficiency – which again highlights the self-defeating nature of management's lack of investment.

Solution: Invest

The solution is simple – develop an investment plan for a managed replacement of existing manufacturing assets, with an appropriate timescale. We can calculate the time taken to earn a return on the investment, taking into account the sale of current equipment.

Investing in new technology and machinery will bring many benefits. It will enable us to regain our competitive edge, offering our products built to exacting standards in a timely manner. Employees will be encouraged to see the company taking its future seriously, improving safety and building morale – and who doesn't love a nice shiny new machine to work with?

However, the process of replacing many of our outdated technologies and machinery will inevitably involve job losses amongst staff. With a higher degree of automation some jobs will become redundant – particularly those jobs requiring intermediate skills, and with changes in management structure, a more streamlined and less managerially-focused

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hierarchy could involve positions being dissolved. This change in particular would have to be carefully managed, but it does offer a degree of cost saving in terms of payroll.

In my opinion, the continued success of the business is contingent upon making these investments a top priority. Everything that follows in terms of product quality, product innovation, marketing and market share/penetration, research and development, prices, return on investment, reducing costs, increasing efficiency, and a whole host of other measures, hinges on management's willingness to invest. Everything that follows is based on the assumption that a wide-ranging program of investment is carried out.

Problem: Falling Sales

Given that the company produces products for sale, we need to look at the different areas in which we make our products.

Off-the-shelf Products

These are the products we supply for general sale to aircraft manufacturers and builders

Custom Products

These are orders we get for specific products which are designed and produced individually for the client. Examples would be control systems for specific aircraft, or components such as ailerons.

Sales have been falling due to competition from domestic and international suppliers, and also because the standards of our produced goods have declined.

Our customers are looking at the products we supply and they see that we are failing to either compete on price, quality, or both. Our competitors, domestic and international are able, for a variety of reasons, to offer products more cheaply, or built to a higher standard. In order to compete and realise our sales targets, we must address issues in the price and quality of our products.

Price Issues

The first step is to review our list of suppliers and check that we are getting the best value for money. Our second step should be to explore the market in order to source new potential suppliers who can compete on price. Our third step should be to either negotiate new contracts, or re-negotiate prices with current suppliers. Given the relatively weak value of

good

THC

Sterling in some markets, we should also look to see if sourcing from UK companies can give us a price advantage in the short term.

Quality

The technology, systems and machinery available to us is outdated and has had a direct consequence on the products we supply. This has also contributed to a reduction in our production targets – an issue already addressed.

Solution: Address quality and production (investment above), refresh existing products, develop new products, develop market research and a marketing strategy

Looking at our product lifecycles, it is apparent that a majority are in the advanced stages of maturity and/or in the decline phase. It would be beneficial to analyse our product portfolio and set out a strategy based on growth share matrix (The Economist, 2009). With our declining sales and small customer

base, using the Boston Consulting Group matrix shows that our range of products could reasonably be grouped as cash cows – where our market share is still relatively high, but the prospects for growth are low.

However, we are sliding into a situation where our products could be classified as dogs – slipping into a low market share with low growth.

We currently have no product ranges

that could be considered to be stars or question marks.

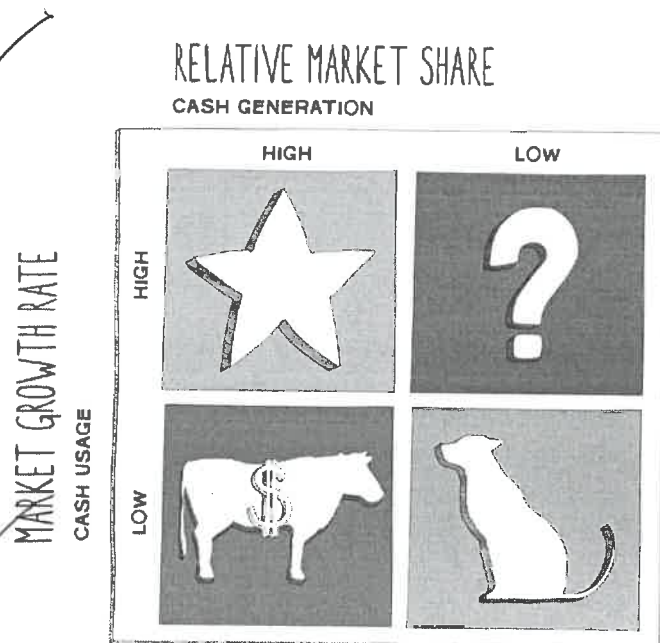


Figure 2: The BCG Matrix
(source: <https://www.smartinsights.com/marketing-planning/marketing-models/use-bcg-matrix/>)

The answer here is twofold. One, conduct market research to evaluate potential areas for new product development, and invest in the appropriate product research and development. The goal is to develop products that can gain high market share with high growth (stars), but

True

should we develop and market products that become question marks (high growth rate, low market share) we need to be prepared to either invest heavily to ensure their success, or abandon them. It would be advantageous to begin a process of Competitive Intelligence (Helm, 2011) whereby we concentrate a measure of our research specifically on our competitors and their products (so that we might develop competing products or beat them to launch), and also on potential customers to spot openings in the market for product development. This would be a long-term endeavour and the research would respond to specific questions such as; "Are Boeing considering telemetry-based aileron actuators for their next generation of aircraft?"

Two, attempt to return our current products to the growth phase (Living Better Media, 2018) of their lifecycle. This will necessarily be an aggressive attempt to market, price and position our products in an area where there is stiff competition. The first element is undertaking the necessary investment in technology and machinery, so that our products regain a competitive edge in terms of quality and finish.

The next element is the marketing mix (The Marketing Mix, 2015); our product(s), our price point(s), our placement and our promotions. In my opinion, in order to re-capture our former customers and to secure our current customer base, we should follow a strategy of penetration pricing (Ivestopedia LLC, 2018). We price our products well below that of our competitors in order to increase our

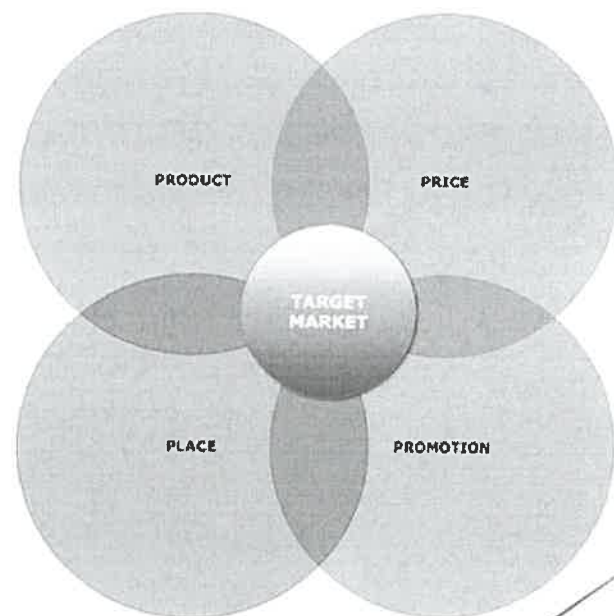


Figure 3: The 4Ps of Marketing (source: <http://marketingmix.co.uk/>)

market share. We couple this with a marketing strategy aimed at highlighting our improved products, demonstrating our commitment to investment and quality over our older processes. We accomplish this by generating a buzz in the aerospace literature, on social media, and advertising and distributing our products directly to customers. As we have been in the business for a substantial amount of time, we trade on our brand recognition and highlight our specialist expertise as a medium-sized business.

excellent
really practical & workable ideas
Tru

Of course, this is a short to medium term strategy that allows us to re-launch our existing product range and re-build good faith in our brand. In cost terms, I anticipate a large reduction in profit margins and a significant investment in terms of marketing and promotion. We should use this phase to buy time for us to develop and bring new and improved products to market, at which point the company will hopefully have enjoyed an increase in market share and improvements to our brand image and reputation.

We use this as a spring board to future success, and to cushion ourselves once the ramifications of Brexit on the economy and trade are more certain. With 90% of our industry's turnover coming from exports (Tovey, 2016), we must be wary of any potential future tariffs that could have a major impact on demand for our products. We should use what we learn in the short term to begin engaging with international customers in order to build up a relationship, so that should tariffs become an issue we already have a line of communication and deals or beneficial arrangements in place.

Some excellent ideas, backed up by relevant theory.

Th

Management, Innovation & Sustainability

GJCR

Introduction

- UK Aerospace Engineering in 2018
 - Second largest in the world
 - Commercial & Military markets
 - 39% growth between 2011 and 2016
 - Highly skilled workforce
 - Primarily an export industry
 - Challenges of trade & tariffs post-Brexit

Our Situation

- Indicators in opposition to UK trends
 - Falling output & quality
 - Falling sales
 - Shrinking customer base
 - Loss of skilled employees
 - Outdated tech & manufacturing capability

Our Situation

- Additional challenges
 - Year-on-year 10% reduction in production targets
 - Rejection rates up 5%
 - Serious safety concerns
 - Several accidents with 7+ days lost time
 - Escalating maintenance costs
 - Increasing proportion of inadequately trained staff

PESTLE Analysis

- Political Factors
 - 2008 crash, lack of credit
 - Lack of investment
 - Brexit uncertainty, new trade tariffs
 - Drop in value of sterling
 - Good for exports, bad for imports
- Economic Factors
 - Low interest rates promote borrowing
 - Foreign economies growing
 - New markets available

PESTLE Analysis

- Social Factors
 - Mobile workforces
 - Structural changes in nature of employment
 - Cheaper labour overseas
 - Education lacking vocational emphasis
 - Environmental concerns – local and global
- Technological Factors
 - Global links and communication facilitate trade
 - Advances in materials & manufacturing technology
 - Automation and process control

PESTLE Analysis

- Legal Factors
 - Health & Safety legislation
 - Duty of care
 - Current legislation under review
- Environmental Factors
 - Public perceptions and awareness
 - Local and global impacts
 - Carbon footprint
 - Energy efficiency – processes, technology, transport

SWOT Analysis

- Strengths
 - Workforce expertise
 - Niche market for products
 - Established company
 - Former reputation
- Weaknesses
 - Declining reputation with customers
 - High workforce attrition and turnover – low morale
 - Poor quality control standards, reduced targets
 - Outdated machinery, high maintenance costs
 - Health & Safety issues
 - Falling revenues

SWOT Analysis

- **Opportunities**

- Retain experienced staff, training opportunities for new staff
- Investment in factory upgrades
- Exploring new and alternative markets/industries for products
- Expand product range
- Changes in management style
- Exports strong – weak pound
- Source local suppliers to offset increased material import costs

- **Threats**

- More agile competitors at home and abroad – global competition
- Brexit implications – tariffs and customs
- Expensive imports

Solutions

- **Change in Management Style**

- **Current: Authoritarian**
 - Tight control from management
 - No role for staff input
 - Low staff morale – loss of staff
 - Rigid business mentality
- **Future: Paternal**
 - Staff feedback encouraged
 - Decisions still made by management
 - Staff expertise utilised during re-investment

Solutions

- Investment
 - New production machinery
 - Increase in quality/tolerances/output
 - Regain a competitive edge
 - Safety improvements
 - Morale boosting
 - Automation – cost savings
 - Efficiency – cost savings

Solutions

- Sales
 - Stamp out quality issues
 - Refresh and relaunch existing products
 - Suitable short-term pricing strategies (i.e. penetration)
 - Develop market research strategy
 - Push advanced products through R&D
 - Program of Competitive Intelligence
 - Develop post-Brexit links overseas

Going Forward

- Managing Change
 - Kotter's 8 steps:
 1. Develop urgency – the case for change
 2. Build a leadership team – draw from across the business
 3. The correct vision – a clear idea
 4. Communication – get everyone on board
 5. Empower action – overcoming obstacles
 6. Short-term wins – get easy targets met and celebrate
 7. Build on wins – repeat good news, improve things
 8. Nail it down – reinforce ethos and make it the new norm

Conclusion

- We have acknowledged the issues
- Address:
 - Management style
 - Investment
 - Sales and marketing
- Bring about change
 - Manage the change
 - Build it with everyone together
- Future Success!

Managing change

Having good intentions and a plan to turn around the fortunes of the company is one thing – implementing that plan is a whole other challenge. This is because it will involve change from top to bottom, altering the human and the material structure of the company to a point where it will seem unrecognisable. The problem is that such structures are resistant to change – routines and patterns of behaviour have an inertia that can only be successfully overcome with a thoughtful process of change management. The quicker and smoother the change, the sooner the company can return to a competitive state.

An advantage we have is that there is already a perceived need for change amongst staff, and because things are not changing, staff are leaving. The company is obviously at a tipping point, and now is the ideal time to begin a company-wide consultation on the issues that have been presented here. Although I have presented here is my vision of how the company can be brought back to success, other viewpoints are to be welcomed, evaluated, accepted or rejected – the process needs to be seen as collaborative for people to buy into the vision.

This step is critical to our success – there must be belief in the planned changes, and a fundamental change in both the behaviours of the management and the staff.

Once a broad set of goals and a time-line are decided upon, the project must be implemented and monitored, with provision made for feedback and modification of the plan, time scale and assessment of risks.

With this in mind, to guide the change I propose following the Kotter 8-step process (Kotter International, 2018) for leading change. First proposed in 1996, Dr Kotter's model has become a popular blueprint for successful change management.

Step 1 is about developing the urgency around the need for this change. With an honest exchange between management and staff about the challenges the company faces, I don't think anyone will be in disagreement about the fact that change needs to happen.

Once the urgency is confirmed, step 2 involves figuring out how to lead the change. In my opinion it would be beneficial to have representatives from the factory floor, preferably those with the greatest experience, to sit on a leadership team responsible for guiding the change.

Involving the viewpoints of all staff is key to creating the vision for change outlined in step 3. Staff must be able to see what their contribution brings to the outcome and how their actions fulfil the mission statement.

Step 4 is all about getting the vision across to everyone in a clear, sustained and repeated manner. Change will not come overnight and the routine of many staff may still be the same as it has been, so the positive vision needs to permeate day-to-day activities in notifications, announcements, conversations, briefings etc. We keep the enthusiasm high.

However, barriers may still exist which have not been foreseen or are taking longer to overcome. These may range from recalcitrant employees to unavailable managers to manufacturing obstacles, so step 5 is about recognising and working quickly to overcome those obstacles.

Step 6 is about getting some early, visible or perceptible changes happening. It may be something as simple as a morale-boosting project like a new canteen, or a new machine celebrating its first production run. Seeing positive results from change is invigorating.

Small victories are crucial to sustaining the momentum of change, but for them to be meaningful they need to be assessed, improved and built upon. Step 7 is about building on those successes without getting carried away.

Step 8 is about nailing down the new culture, and getting that culture, thought process, success and regime of values embedded into everything the company does day-in, day-out. Old habits die hard, but at this point the management and staff should have proved to themselves and each other that they can bring about positive change together.

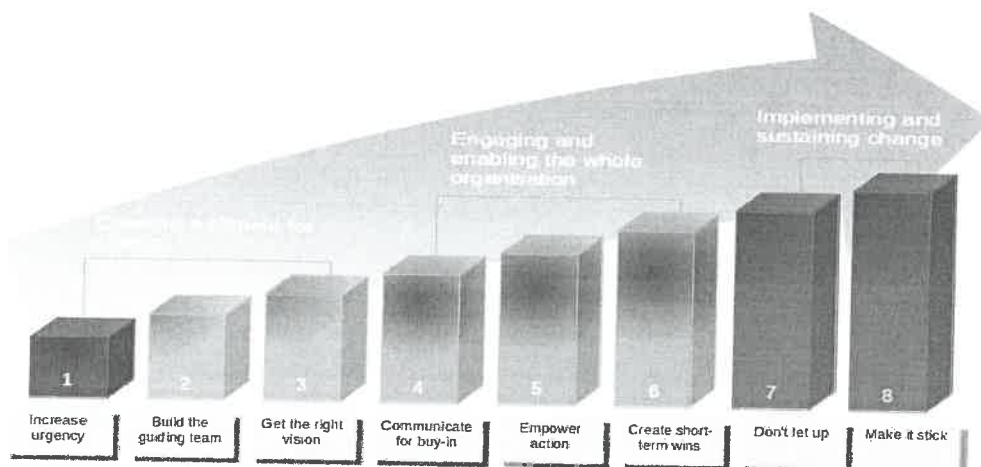


Figure 4 <https://www.leadershipthoughts.com/kotters-8-step-change-model/>: Kotter's 8 step change model (source: *excellent The*)

Conclusion

This company has known success in the past and it can experience that success and more going forward. Recent years have seen our reputation decline along with our standards, sales and morale, but these are all issues that can be overcome with the right attitude, the right plan and the right people. By identifying what I believe to be the root causes for our decline, I have attempted to demonstrate, using proven techniques, methodologies and theories, my vision for the successful future of the company. By instituting an ambitious and collaborative approach to change, by investing in technology, machinery and our staff, by exploring new markets and new research opportunities, we can all take pride in being part of the successful legacy of this company.

An excellent
analysis of
the company,
and you have
brought in some
workable and
intelligent strategies
to improve the
company.

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Bibliography

Cherry, K., 2018. *Autocratic Leadership*. [Online]

Available at: <https://www.verywellmind.com/what-is-autocratic-leadership-2795314>
[Accessed 25 March 2018].

Health And Safety Executive, 2018. *Health and safety in the engineering industry*. [Online]

Available at: <http://www.hse.gov.uk/engineering/index.htm>
[Accessed 20 March 2018].

Helm, B., 2011. *How to use Competitive Intelligence to gain and advantage*. [Online]

Available at: <https://www.inc.com/magazine/20110401/how-to-use-competitive-intelligence-to-gain-an-advantage.html>

[Accessed 20 March 2018].

Ivestopedia LLC, 2018. *Penetration Pricing*. [Online]

Available at: <https://www.investopedia.com/terms/p/penetration-pricing.asp>
[Accessed 12 March 2018].

Juneja, P., 2018. *Management Style - Meaning and Different Types of Styles*. [Online]

Available at: <https://www.managementstudyguide.com/management-style.htm>
[Accessed 8 April 2018].

Kotter International, 2018. *8-Step Process*. [Online]

Available at: <https://www.kotterinc.com/8-steps-process-for-leading-change/>
[Accessed 10 April 2018].

Living Better Media, 2018. *Growth*. [Online]

Available at: <http://productlifecyclestages.com/product-life-cycle-stages/growth/>
[Accessed 20 March 2018].

McLeod, S., 2017. *Maslow's Heirarchy of Needs*. [Online]

Available at: <https://simplypsychology.org/maslow.html>
[Accessed 13 February 2018].

The Economist, 2009. *Growth Share Matrix*. [Online]

Available at: <https://www.economist.com/node/14299055>
[Accessed 20 March 2018].

The Marketing Mix, 2015. *The Marketing Mix 4P's and 7P's Explained*. [Online]

Available at: <http://marketingmix.co.uk/>
[Accessed 28 March 2018].

Tovey, A., 2016. *Britain's aerospace sector soars amid fears Brexit could clip its wings*. [Online]

Available at: <https://www.telegraph.co.uk/business/2016/06/29/britains-aerospace-sector-soars-amid-fears-brexit-could-clip-its/>
[Accessed 15 January 2018].

Types of Management, 2011. *Paternalistic Management*. [Online]

Available at: <http://www.typesofmanagement.com/paternalistic-management.html>

[Accessed 8 April 2018].