

***An Investigation into communications systems
in a real business or organisation***

Scenario: Choose an existing business or organisation & investigate the system of communication already in place:

- Internally
- Externally

I am to assess & evaluate how good this system is & highlight any problems that present themselves. I am then to make recommendations as to how they can improve their system by using more ICT.

Introduction

In this report, I am to investigate into a business & the business communications systems that they employ. This will include internal business communications (i.e. between management & employees) as well as their external communications methods.

From this, I must evaluate how good the current communications systems are before suggesting problems with it and how to overcome them. Then I will make recommendations to how they could improve their current systems. This may include changing the ways in which they use the equipment they have, or suggesting other communications medium.

I have chosen to research into a manufacturing company, Handles & Fittings Ltd. (HAF). They are leaders in the designing, manufacturing, and distribution of architectural ironmongery, bathroom accessories & electrical fittings. Although UK-based, they market worldwide. Stephen George founded handles & Fittings Ltd. in 1980, and it has grown considerably in the last 20 years, incorporating offices in Hertford, and clientele all over the world.

Action Plan

Date	Work to be carried out	Changes made
20 th October	Coursework preparation. Contact HAF Ltd. about coursework.	-
27 th October	Introduction to coursework – explain report purpose & identify the business. Prepare action plan.	-
3 rd November	Predict the communications systems already emplaced at HAF	-
10 th November	Research into different research methods. Primary and secondary data. Use the internet and books.	-
17 th November	Create questionnaire and collect results. Interview 2 employees.	Interview 1 employee
24 th November	Interview 2 employees.	Interview 3 employees
1 st December	Do Findings section: Part B.	-
8 th December	Do Findings section: Parts A and C.	-
15 th December	Do Conclusions section.	Do Findings section: Part C
22 nd December	Do Recommendations section.	Do Conclusions section.
29 th December	Produce Bibliography and Appendices.	Do Recommendations section
5 th January	Put project together – Proof reading of the document.	Produce Bibliography and Appendices
12 th January	Hand in.	Put project together – Proof reading of the document.

I predict that HAF will use a variety of communications, both internally & externally. The communications medium will often be used for more than one purpose. For example, the telephone & e-mail can both be used internally & externally. Also, they should be easy to use, so as little training as possible is needed to use them.

I think that the communications systems in place should be of reasonable quality, as the company seems to run quite smoothly & effectively. There should have been a reasonable amount of money spent on communications. However, I do not think that they will have very high-tech communications media – video conferencing for example.

I acknowledge that people occupying different roles within the business will use different communication methods to other people. I predict that people in office-based jobs will use a lot of written communication – using email in particular, though the telephone will also apply to them. On the other side of the spectrum, I think that those working in the factory will use a range of oral communication – from conversations to the telephone.

Research

There are two different methods of research, primary & secondary research. Secondary research involves a range of sources:

- Published statistics: census, social security data etc
- Published texts: theoretical work, secondary analyses by 'experts' and reports
- Media: documentaries for example, as a source of information
- Personal documents: diaries

Advantages of secondary research are that they are cheap and accessible, and are often the only available resource (like historical documents). Also, they are the only way to examine trends on a large-scale basis.

Disadvantages are that they can lack consistency of perspective, and biases or inaccuracies cannot be checked.

Primary research resources are:

- surveys: questionnaires, interviews
- observation: overt or covert

Advantages of primary research are it is quick & cheap if you do not have to interview many people. It allows generalisation to a larger population. Also, you can verify the information by re-questioning the interviewees or respondents.

However, if you have to interview a lot of people it can be time-consuming. Respondents to the questions may interpret the questions differently, making comparison of the answers difficult. You are not able to check whether the people are responding the questions honestly.

I will be doing most of this report using primary research techniques. This will mean producing questionnaires for employees to answer, and interviewing various members of the business.

I will still be using secondary research skills to research the company on the Internet in order to get base details.

I think that the business will use various methods of communication. As they are a medium sized business; I think that HAF will use the 'usual' methods of communication; email, telephone, facsimile, memos. Having seen their website, I know that they have an ordering page already set up, as well as general information on the company and products.

On the next page, there is a sample of the questionnaire I sent to HAF. I have outlined questions to find out more about the company's communication systems.

Findings

Part A: The need for communication in business

In business, communication is essential without a doubt. Without it, the business could not function properly. In fact, all people have the need to communication. Communication is not just emailing and posting letters, it can be as basic as just conversation. In fact, even in the most sophisticated businesses, the same form of communication is used as it would be a thousand years ago. The postal system, although readily available, cheap and (relatively) fast would have had a primitive equal in the last millennium. Also, no business can function without face-to-face conversations. Of course, new innovative technology has been introduced, such as the telephone and facsimile. There are even newer additions to these, such as emailing and video conferencing.

Communication

- Theory: purpose of communications, benefits, barriers, types of media
- What happens if the communications systems break down?

Part B: Communications Media

Oral	Personal	Personalised wider distribution	Widest distribution
Internal	Conversation, telephone	Interview – meeting Conference call – video link	Web
External	Visit, telephone	Presentation, conference call – video link	Broadcast – radio television, web Distributed recording – disk, tape, film
Written	Personal	Personalised wider distribution	Widest distribution
Internal	Note-memo, e-mail, letter	Copied note, memo, email, letter	Policy document – instruction Notice board – web page
External	Letter, fax, e-mail	Copied letter/fax – standardised letter/fax Copied e-mail, compliment slip, promotion material	Web site, corporate publication, advertisement

Businesses use a whole range of communications media, whether for inter-house communication (internal), or communicating to other companies (external). Within these two groups, there are more subdivisions: whether written or done orally going on to whether the communication media is personal, to a personalised wider distribution or to the widest division. All of these are outlined in the table above. You will notice that some of these will be used in more than one category.

Firstly, I will explain the uses, advantages, disadvantages of internal communication media. Firstly, I am to explain about the e-mail, networks & the internet. Email is a means of sending messages, text, and computer files between computers via the telephone network. Because the telephone network covers the whole world, email enables you to communicate *world wide*. It enables you to send long messages globally in seconds for next to nothing, effectively free when using a broadband system (as more and more of us are now, and certainly businesses will be up to date with this technology). All sorts of files can be sent, such as text, graphics & sound, in condensed attachments. You can also send multiple messages. Finally, it is available all of the time, and wherever you are in the world, if you have access to the internet.

Unfortunately, emails can only be sent to those who have access to the internet, and even if they do they will only pick it up when the user logs in & checks their mail.

All business should & will have access to the internet and email, and HAF is no exception. They can be used for quick notices/reminders in the work place, and you can send large documents or forward emails to a colleagues computers; just some of their internal uses. Externally, they enable communication outside of the business with other companies. You can use it for general communication, or you can also send ‘attachments’, these can include files, graphics & sound. Without a doubt, this sort of communication media will be used at HAF.

The internet is another widely used method of communicating. The vast majority of competitive companies will have an internet connection, mostly having something called a broadband connection (or ADSL & cable). This offers very fast connection speeds, without the waiting that is implied with ISDL (dial up). Most companies will have their own websites, in which they describe what they are doing/selling. They make also have notice boards on the web pages, so that members of the company can log in & view what's going on.

As well as using the internet as a way of communicating & selling their product, businesses can also browse through other companies on the internet who they may be interested in buying/selling products from/to.

Having access to the internet can be expensive to some companies, though this cost is becoming less and less and broadband is now available at a very cheap competitive rate.

Also, with people spending more and more time at a computer, they are not spending so much time exercising, but are sitting at a desk all day. Also, some people feel that the internet & email mean that you lose the 'personal touch' involved in business and so prefer speaking either over the telephone, or in person.

The internet is an example of a wide-area network (WAN), a large number of computers linked together to allow them to share resources over a large geographical area. There are also Local-area networks (LAN) which cover a smaller area. Many businesses will have their own networks, though I think that HAF may have quite a primitive version of this, something that I will research and discuss with them. Advantages of networks are that sharing devices saves money. Files can easily be shared between users, and they can communicate by email. Also, security is good, as other users can't see your files, and a file server is easily used to back data up. There are disadvantages though, purchasing the parts needed are expensive – as is the installation. Also, a network manager is necessary to oversee the day-to-day running of it. If the file server breaks down, so do all the computers on the network. Also, there is the risk of hackers and intruders harming the business and reading confidential files. Despite this, the internet is undoubtedly a very important asset within a business, and I think that the majority of communication in businesses is computer/internet related.

The telephone is an oral method of communication and can be used internally and externally. Examples of when the telephone internally would be for the office department of the company needing to specify something to the factory, like how much of a certain product should be made. If there is more than one office to the company, one department could contact their colleagues elsewhere in the world. External communication would be if the company were in contact with another company. However, with the introduction of email & video conferencing, this type of communication is not required as much as it used to be. The telephone is an example of personal oral communication. Other methods of this would be conversations (internal) and visits (external).

The advantages of the telephone are that it is quick, all companies have them and there is the 'personal touch' involved. Many people prefer using the telephone to other media, this is because you can hear the other person and it strikes up an intimacy that is not shared when communicating of email.

There are disadvantages with the telephone network however. At peak times, it can be quite expensive, especially so when telecommunicating internationally. There are other problems too. If the company has a power cut, or the telephone lines falter, you cannot use the telephone. Also, there is no guarantee that there will be someone else at the end of the phone. This is not such a big problem now though, with the introduction with the answer phone, but it can be a problem if there are emergencies. There are other drawbacks as well. Calls have to be made when the business is open, and you have to pay particular attention to different time zones. Finally, the Queuing systems employed by companies can be irritating.

More and more people today have mobile phones and in business today they are essential, especially in the sales department. As HAF is a manufacturer, they will have salesmen who need mobile phones.

Also, many others working in the office will require one. Advantages with using mobile phones are that they can be used anywhere as long as there is network coverage. Also, you can send text messages – useful if someone is not available on the other end of the phone. Finally, WAP enabled phones allow Internet and email connection. Disadvantages of using mobile phones are that there is a lack of hard copy and there are arising health issues surrounding phones.

Meetings and conversations within the business are one of the most effective ways of communicating, even if they are not particularly time efficient at the time. In this, people can take part in general discussion. Also, you do not have to get back to the person you are communicating with after you have been asked a question, like when using email.

Moving on from personal oral communication, I will now talk about personal written communication. Internal examples of such are memos and emails. As I have already discussed, the email system is very useful both internally and externally. Indeed it is an example of internal and external personal written communication. Memos, or Memorandums, are used as notes within the organisation. Instead of holding a meeting, or using email, people may quickly write out a memo to more than one person. Memorandums are very cheap; all you are paying for is the paper and ink that it is written on and by. An advantage of this is that it is a quick way of communicating within the company, and you can send multiple messages. However, as memos are generally very brief, the recipient may have queries about what he/she has to do.

Despite all of these means of communication, many companies still use the post for written communication. This has been stamped out with the introduction of email which is far faster and cheaper. Advantages of using the post are that people enjoy getting letters. Packets and parcels can be sent, and it does not require any special equipment. The disadvantages are that it can be expensive and very slow (especially when sending letters abroad). For these reasons, many companies have converted to using email as a preferred communication means.

Notices put up by people in the company or sent round are another quick way of ensuring that everyone gets the necessary information. However, such notices may get lost in all the paper work that the employee has to deal with. This is the same for memos and the like.

Fax machines have been very popular in businesses for the last decade or so. It is a means of sending digitised images along a telephone line, replicating the image at the fax machine of the recipient. An advantage is that there is hard copy provided. Disadvantages are that it can be slow to send a big document. Also, paper is wasted when junk faxes are sent.

Finally there is another means of communication that major corporations and big companies work; video conferencing. This is where people in different places are able to link up to see and hear each other. Sometimes a small camera is attached to a PC but computers are not always needed. It is like having a personal conversation with the person on the other end, even though they may be thousands of miles away! However, for a smooth moving picture, the display needs to show at least 25 frames per second. Broadband communication is necessary, as it means transmitting many megabits of data per second. Most normal internet connections are not fast enough. This method of communicating probably is not used by HAF.

Communications Survey

What position do you occupy in the company?

In the company, whom do you report to?

In the company, who reports to you?

Which internal communications medium do you most use at work?

E-mail/network

Memo

Telephone

Meetings

Notices & reports

Other (if so which _____)

Which external communications medium do you use most at work?

E-mail

Fax

Telephone/Mobile/Pager

Video conferencing

Letters

Internet

Other (if so which _____)

What are the advantages of communications within the business?

What are the disadvantages of communications within the business?

Where could / do communications within the business break down?

What training have you received at work?

How could communications within the business be improved?

If a considerable amount of money were invested in business communications, which communications would you think it wise to invest in? (Can be more than 1)

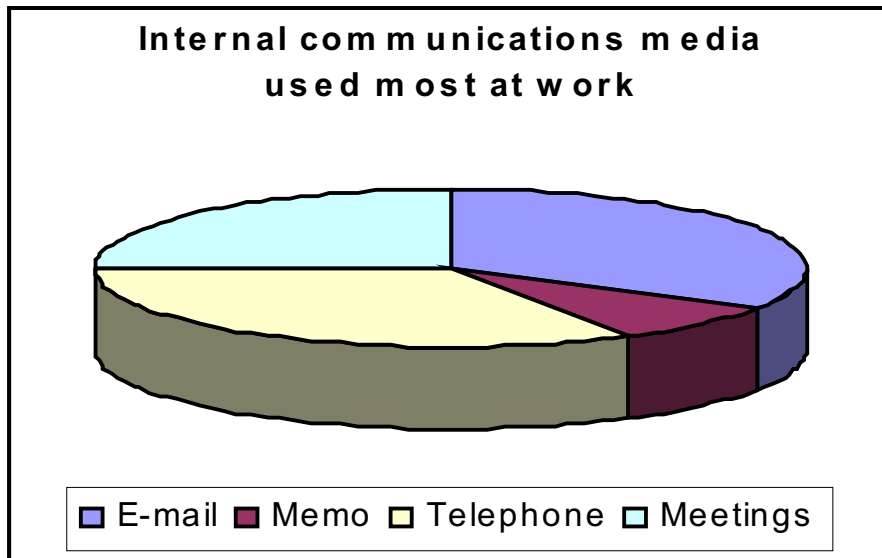
Appendices

Article 1

Article 1:1 – Internal communications media used most at work

Communications Medium	No. people
E-mail	4
Memo	1
Telephone	4
Meetings	3
Notices & reports	0
Other	0

Article 1:2 – Most used internal communications chart

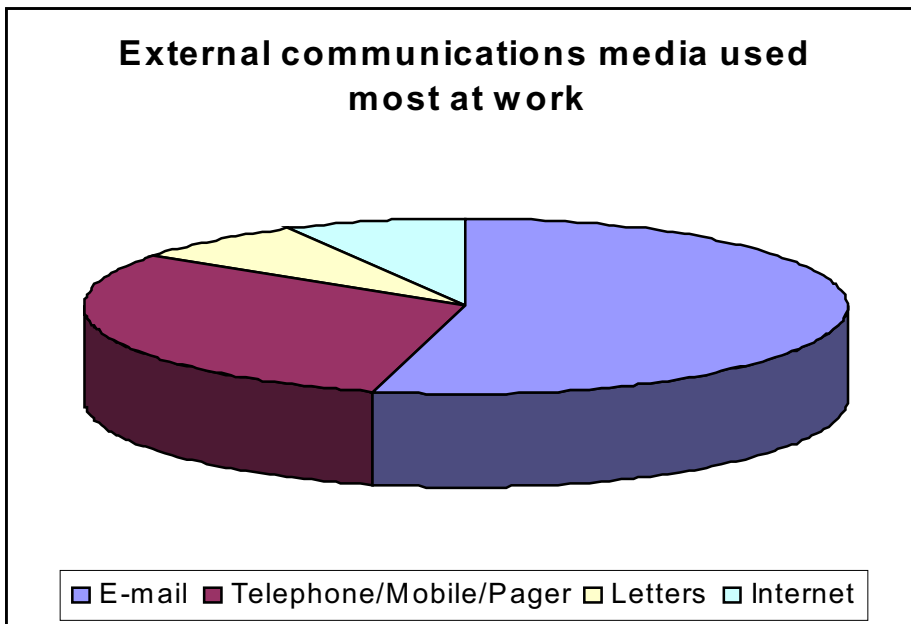


Article 2

Article 2:1 – External communications media used most at work

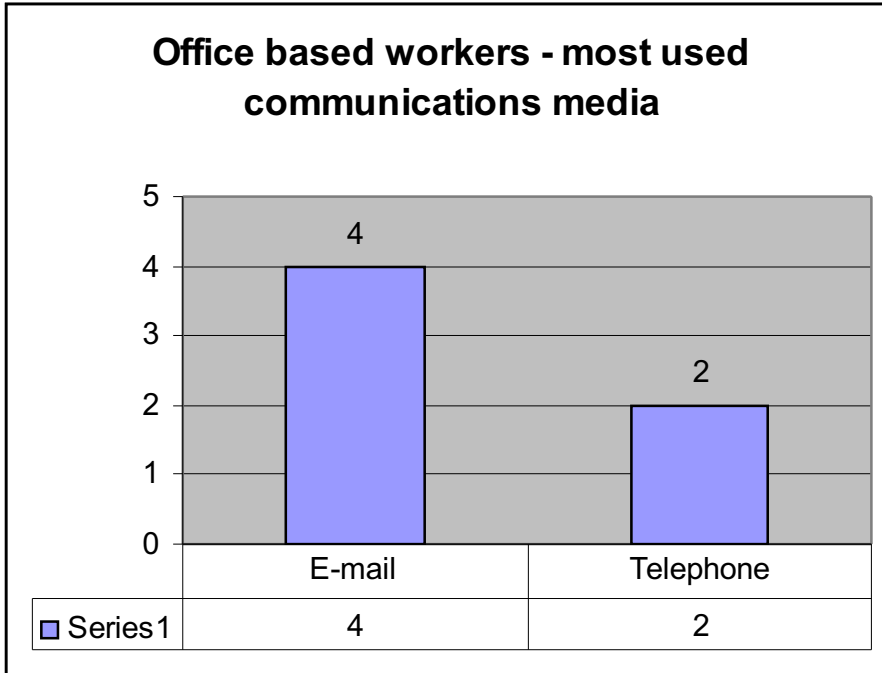
Communications Medium	No. people
E-mail	7
Fax	0
Telephone/Mobile/Pager	4
Video conferencing	0
Letters	1
Internet	1
Other	0

Article 2:2 – Most used external communications chart

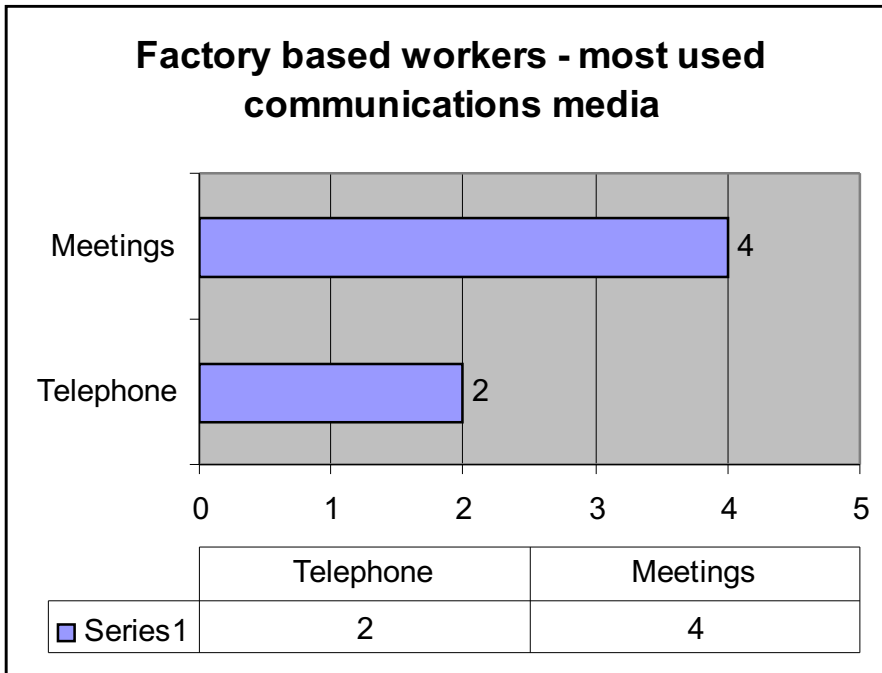


Article 3

Article 3:1 – Most used communication media for office-based workers



Article 3:2 – Most used communications media for factory based workers



Part C: Research findings

After having distributed the questionnaires at HAF, I received 12 replies. These were from various members of the factory, covering a wide range of posts from factory workers to the Managing Director. I thought that it was essential to find this information out for a number of reasons. Primarily, people in different positions within the company will experience different types of communication. For example, a factory worker will (in probability) use different communication methods to a sales director. I felt it important to get an even spread of opinions.

Within the company, there is quite a developed sense of hierarchy. At the top, there is the Managing Director, who is then supported by a Commercial Director & a Sales Director. Underneath these are the factory manager, the accountant and numerous other positions. At the bottom of the ladder, we will find factory workers and some office workers. The factory workers will report to the factory manager, and he will then discuss with the Commercial Director. This is the same for others within the office. The salesmen that the company employs will report to the Sales Director, who is essentially in control of national and international sales (though the Commercial Director plays a hand in respect to the International sales). These two directors will then report to the Managing Director. Having used primary research into the accounts of the business, the lower directors own 5% of the business each. The annual profits of the company have fluctuated between £2 million & £2.5 million over the last 5 years.

Now I will refer to the communication methods used most in the company. I have attached another sheet including various articles of which I will refer to in the next paragraph. Having asked the 12 respondents, I received a variety of results. Firstly, I will talk about the most used internal communications media used in the workplace. Having conducted the survey, I have realised that those in different positions within the company will use different types of communication more often than others. I will go on to discuss this further later on in this section. Now I will refer to Article s 1:1 and 1:2. In the table and graph, we can see that most communication takes place by email or telephone within the company, with meetings/conversations also ranking highly. Not entirely surprising, I found that memorandums and notes are not so frequently used. I think that I can explain this by saying that in this fast paced environment, many people will be working at computers in the office, and sending a quick email is far more time efficient than writing out memos. Also, in the factory, people will be so hands on that they will communicate verbally. This would explain the statistics in emails, meetings and telephone. Those in the factory will also communicate by telephone with the office as there is no email capabilities and it would not be particularly time or cost effective to have people walk up to the offices and back all day. Going back to my statement that those occupying different positions in the company will have the opportunity to use different types of communications media than another person in the company. Having studied the replies from my questionnaire, I have made two columns of jobs. This table is relative to their position in the company. I received 12 replies, 6 of which from the factory and 6 from the rest of the business.

Office Based	Factory Based
Managing Director	Factory Manager
Sales Director	Factory worker
Commercial Director	Factory worker
Accountant	Factory worker
Salesman	Factory worker
Saleswoman	Factory worker

Having separated these two out, I will show on graphs and charts how those in different jobs (columns) will use different communication methods to a colleague in another job (opposing column).

I expect that we will see that those who work in the office will use the email system as their most used method of communication, whereas a factory based worker will make use of verbal communication or telephone more. To see the graphs, please refer to Articles 3:1 and 3:2. The only method used by both columns was the telephone. Email is the method used most by office-based workers, and oral communication is mostly used by factory-based employees. These bar graphs prove my prediction that people will use different communication types when occupying different roles within the company.

Now, I will refer to Articles 2:1 and 2:2. The articles show what the most used external communication methods are within the business. I have realised that this will mainly apply to the workers in the office, or higher up in the hierarchy. As shown in the pie chart, over 50% of external communication in the business revolves around emailing. Unsurprisingly, the telephone I also used a lot. However, facsimile, post, internet and video conferencing are rarely used; not at all in the case of video conferencing as the business does not have the means to use it.

In all of the replied questionnaires, when asked the advantages and disadvantages of communications within the business they followed the same sort of lines. All of the employees recognised the communication is vital within a manufacturing company. Put in context with the factory workers, they thought that communication was needed for them to know which and how much of a specific product to produce/send. Also, safety is an issue when handling machinery (even if a lot of the produce is now made in China). When speaking to office-based employees, they found communication most necessary when talking to prospective clients and to the companies who manufacture, polish (and whatever else) the product as to how much to make/do.

There did not seem to be any drawbacks for communication, and most people did not answer question 7. One or two people commented on how some forms of communication are quite expensive or slow, though they recognise that the communications systems in place are essential for the business to operate.

Although 12 people were asked, only 8 people were able to identify how communications in the business could break down. The most popular of which is when power cuts occur. Obviously, the company cannot really cater for this, other than by implementing some type of back-up energy supply. If the telephone wires in the area falter, this would be a problem for HAF, but once again the company cannot do much about it, other than to implement a system in which the telephone is not used. Within the business, people need to be free and open to communicate. Directors should be prepared to talk to those below them. If this does not happen, workers do not know what they are supposed to be doing or making, and directors have no idea of the employees working conditions. This would lead to an unhealthy business, and profits would suffer greatly.

Something that did surprise me about the business is that people who are working in the factory are not trained to use the communications method available to them. This is probably as they are expected to know how to use it already. Naturally, they will be trained to use the machinery in the factory. Those in the office have been trained to use the office implements, though in all honesty, there are some elderly people working in the company who are not as up to date on some methods of communication as others (e.g. Email).

When asked how communications within the business could be improved, most of the participants agreed that the communications within the business are generally very good. Some of the factory workers raised questions as whether to implement an 'intercom' system, where there's a receiver in the factory, and another in the office. After purchase, the intercom would be free to use and more cost effective than having to use the telephone. This was also identified by the factory manager and the Commercial Director. None of the employees talked about video conferencing. This is because they probably feel that such an expense is unnecessary as the business is still relatively small – 28 employees and there is only the one business.

Some of the office workers commented on the fact that the network systems in place are remarkably primitive and out of date. This is obviously an area of weakness within the business which I can consider. On and one to one interview with the Managing Director, I talked to him about such issues and the general response was that communication has not seen the attention that it should be having.

In my introduction to the coursework I came up with a number of predictions. These included that HAF would use a wide range of communications. What with interviews with two members of staff, I think that this claim is supported. Also, I thought that the communications media would often be used for more than one purpose, like the telephone being used internally and externally. The systems in place are relatively simple, and I have had to pick up on the fact that people in HAF are not trained enough about communication. Of course, the system in place is a good quality, though HAF does not use high-tech equipment like video conferencing – mainly because it does not need to. Finally, I talked briefly on the fact that people in different positions will use different communications methods. As we can see in Articles 1-3, this claim is justified.

The questionnaire and interviews are both examples of primary research. Advantages with primary research are that it is quick and cheap – if you are not interviewing many people. What is more, you can verify the information by re-questioning the respondents. However, interviewing many people is time consuming - luckily, I only planned to interview 4 people from the start of the investigation. Some people may interpret the questions differently – making comparisons of answers difficult. Also, you cannot check if people are lying to you or not.

The use of questionnaires in this investigation was crucial to my research. This was a quick way to gather information, even if it was not on a personal level. I was able to ask all of the questions necessary, and I would have asked similar questions in an interview. Also, from multiple choice questions, it is easy to produce graphs – like in Articles 1-3. In interviews you are induced to ask more open questions, and it becomes harder to produce graphs and charts. The only problem is that the questionnaire is voluntary, and I could not tell how many people would respond to it. Interviews are also very good ways to found out information. You are able to ask broader questions, which can be replied in detail – which is always a good thing when extracting comprehensive information. It is quick to interview people, especially as I only questioned 4 people.

After research on the internet, I have found that these two methods are easily the best way to find primary data. I was observing what was happening in the company throughout the investigation, and could not improve on this.

The only way to broaden my research would be to use secondary data as well as primary. Other than looking at the company's website and annual profit documents, I did not use much secondary research. I did not do a lot of research into published statistics and texts as I could have done. In retrospect though, I do not think that I needed to use any further research methods as I have found all the information that I need about the company to provide data for a conclusion.

Conclusions

From this investigation, I have probed into the communications systems that HAF have in place. From a survey and interviews with various employees, I have drawn together a number of conclusions. These conclusions are not only based around the computers and machines carrying out the communications, but the people operating them.

The conclusions that I have drawn are generally positive of the company. The systems in place are working and the company is generally happy with them. The range of communication methods is wide enough, with the exception of a few other potential additions that I will identify in the Recommendations section. I feel that it is not the communications media that are in question when talking about how good the systems are— but the people using them. Someone without the necessary skills will inevitably not be as good with the equipment as another who has learnt about the apparatus. This is where further investment should take place by the employer.

I am now to talk about the employees that use the communicating machines. From the questionnaire and an interview, it has come to my attention that some of the employees using the machines have not had adequate training on them. For example, some of the older workers have problems with the emailing system. Email has not been around for that long, and people around 50 years old who do not get to use computers regularly do not know how to operate the equipment. In a business of this nature, I think that this is a bit naïve of the employer, who should ensure that workers are competent and have communication skills. This might mean that the company would have to pay money for training courses for the ‘unskilled’, though in theory, this fee would be repaid many times over as the company should be able to run smoothly and effectively (increasing profits).

Whilst undertaking research and writing out this report, I have not had many problems. The business has been happy to supply me with information about profits and their communications systems, and have been more than willing to cooperate with the survey distribution and the conduction of three interviews with employees. The only problem as far as this was concerned was that we had to reschedule some interviews, as a result of other school work keeping me busy rather than it being the company’s fault. This meant that I had to change my schedule set out in my action plan. Also, there was a ‘hiccough’ with the processing of this document. There was a problem with the floppy disk that I was using to save documents, resulting in me losing quite a lot of company information. This meant that I lost time, and my action plan had to be rescheduled once again.

To conclude this, I thought that the systems emplaced already by HAF are working well and the company is not suffering any major set backs through communication inadequacy. However, this does not mean that the systems are in any way perfect and need no improvement. I have already highlighted the potential areas for improvement, such as training on equipment and I will talk about further improvements in the Recommendations section of this document.

Recommendations

Having conducted a questionnaire and interviewed members of the company I have gained excellent insight to the company and the communications employed. On the whole, I have found the communications systems currently being employed to be of a reasonable quality. In this section of the investigation, I plan to talk about how the business could improve the communications both internally and externally. On top of this, I will highlight problems that I have found with their present system and how these problems could be improved.

After having seen the equipment used by HAF and their operation, I feel that there is a wide amount of communications media, though I have come up with some additional utensils that could be utilised by the company. The first of which is a set of Wireless Intercom systems. Rather like a baby monitor, they allow employees to communicate with each other, room to room and between floors. I have come across these with multiple channels, so that you can communicate with any number of room or offices. After purchase and installation, these are free to use, with only new batteries needed. The current use of the telephone is relatively expensive though, and this should save them some money in times to come. These are available for £40 upwards.

When walking in the offices and factory, I noticed that all of the telephones were wired up, with no cordless telephones. This means that you would not be able to move around when talking, which is a disadvantage, especially when in the factory. These are available in different models, cheaper sets being very low-cost whilst not having the capabilities, better versions being more expensive.

In addition to this, I think that more money needs to be invested into a better form of network, as the computers are currently 'stand-alone' computers, and not connected properly. This does not mean that they have to go mad purchasing expensive kit needing a paid network manager. Instead, they need a toned down network enabling better communication and links.

I have pointed out in the Conclusions section how I think that it is not necessarily the machinery that needs to be updated within the business. Instead, I am pretty certain that in some cases, it is the employees that need to be updated and trained on the systems. Without trained people using the systems, the equipment might not get used properly, or not as much as it could be. This leads to a fall in profit. With just a few training sessions, the workers who are not so competent with the kit could be updated and so the price paid for the training would be well used.

Other than the things that I have mentioned above, I am happy with the communications procedures employed by HAF. There are no real problems with the systems, and the proposals outlined above are to improve the business, not to 'fix' it. If these recommendations are appreciated, I feel that the company would benefit from a communications point of view, and for profits.

Bibliography

In this investigation, I used a number of sources to gain relative information of both HAF Ltd. and on communication systems and types. Here is the list of sources that I used throughout the coursework:

- Stephen George: Managing Director & Founder of HAF Ltd. Gave base details of the business and how business worked. Also discussed profit and number of workers.
- Matthew Jones: Commercial Director of HAF Ltd. He introduced me to HAF.
- Stephanie Brown – Office Worker.
- Henry Gordon – Factory Manager
- Letts GCSE Success ICT Revision Guide, by Sean O’Byrne.
- Communication in Business: Edition II, by Tara Smyrna.
- Types of Communication, by George Watson.
- Internet sources:
 - <http://bbc.co.uk/schools/gcsebitsize/> - GCSE Bite size Revision Site
 - <http://communication.net/media> - Communication Types
 - <http://mylums.co.uk/comms> - Communication Information
 - <http://data.com/datahandling> - Data Handling
 - <http://ghyley.org/researchmeth> - Research Methodology
 - <http://hafinternational.com/> - Official Website
 - <http://hafdesigns.co.uk/> - Ordering Website
 - <http://shop.bt.com/> - Cordless Telephones
 - <http://rfconcepts.co.uk/> - Intercom Systems