The Organisation of Electronic Documents in Small, Medium and Micro Enterprises (SMMEs)

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Abstract. *This paper reports on an empirical investigation into the information organisation practices of small enterprises in South Africa. The data were collected by means of questionnaires completed on site during interviews with the owners/managers of the businesses. The questions focussed on establishing what information was regarded as the most important (business-critical) and how the information in electronic format was organised. The questionnaire data were supplemented by observation of the relevant information systems. One of the outcomes of the investigation was a generic classification scheme, designed according to the principles of facet analysis, for use in SMMEs to organise electronic resources. The structure and features of this classification scheme are also addressed in the paper.*

Introduction

A perennial information management problem that businesses have to face is how to store and retrieve the information that they create and acquire. Many systems and techniques for information storage and retrieval are available and described in the literature. However, not all of these are necessarily appropriate and affordable for small businesses. In the literature about information systems and information management the systems and procedures are usually described in the context of large organisations, and information organisation is usually treated very superficially, if at all. It is therefore difficult for managers of small businesses to find appropriate guidelines in the literature for organising the information in their businesses.

To set the scene for this paper a brief explanation of the core concepts contained in the title will first be given. The expression "organisation of documents" refers to the creation of retrieval tools such as indexes, catalogues, databases and search engines, that store document descriptions and other metadata, as well as the arrangement of the physical documents themselves in organised collections. Retrieval tools make provision for searching by means of keywords, whereas organised collections make it possible to browse documents directly. Both these methods of information organisation are well-established in the theory and practice of document retrieval, and should be seen as complimentary to each other.

Software for information retrieval, such as search engine software and general and specialised database programs are freely available. Large enterprises will need expensive software to handle the amount of information in their systems, but small enterprises can make do with the retrieval software included in programs such as Microsoft Windows and Microsoft Office, and software that can be downloaded for free from the Internet, such as Google Desktop Search, Copernic Desktop Search (http://www.copernic.com/index.html) and website search engines, e.g. FreeFind (http://www.freefind.com/). These software solutions for information organisation in SMMEs will not be addressed in this paper. The focus will be on the arrangement of documents in organised collections by means of a classification system.

The paper is limited to the organisation of *electronic* documents in *small businesses*. The term small businesses will be used for the whole group of enterprises known as SMMEs, which can be subdivided according to size in medium, small, very small and micro enterprises (South Africa. National Small Business Act, 102 of 1996). Electronic business documents can include internally created office documents in a variety of formats such as text documents

(correspondence, memos, reports, minutes, email messages, etc.), spreadsheets containing financial information, production figures, etc., image, sound and multimedia files, and database files. Many files of these same format types are also acquired from external sources. These include emails and email attachments, resources downloaded from the Internet, and addresses of Internet sites (favorites/bookmarks). To ensure the effective utilisation of all these electronic resources they have to be organised in a logical and easy to use manner.

Many large corporations recognise the importance of information as a resource, make provision for its efficient management by appointing professionally trained and dedicated people as information managers, and use sophisticated, expensive corporate information systems such as document management systems, intranets and portals. Medium, and especially small and micro enterprises, however, usually cannot afford such luxuries. Information organisation in the smaller enterprises is often limited to the use of folder systems for the arrangement and storage of the various types of electronic documents, and databases for financial, customer and employee information. According to our research very few people in small businesses are using retrieval tools such as search engines for the retrieval of their internal business documentation, even though search facilities such as the Microsoft Windows and Office search engines and Google Desktop Search are freely available. Metadata to enhance the possibility of retrieving documents are also not generally used in small businesses.

Folder systems represent the most basic and affordable level of organising electronic information, and are prevalent in SMMEs, on both the enterprise and personal levels. The focus in this article will therefore be on the use of hierarchically structured folder systems for the organisation of electronic documents. This does not imply that the application of the classification system proposed here should necessarily be limited to folder systems or even to electronic documents. Although the focus was on the creation of folder structures, the scheme should also be applicable in more sophisticated systems such as a document management system and a directory type of retrieval system forming part of a corporate portal.

One may ask whether it is justified to do research and present an academic paper on the construction of something as simple as folder systems. It has to be acknowledged that no special expertise is necessary to create folders. However, the problem is that the developers of operating systems such as Microsoft Windows and application programs such as Microsoft Office give very little guidance as to how exactly a system of folders and subfolders should be designed. The instructions in their help files are limited to the procedure to be followed for the creation of a folder, but no guidance is given about how a whole system of folders should be structured.

The result of the absence of clear instructions for organising folders is that folders are created and named intuitively to satisfy the need of the moment and the subjective frame of reference of the individual, without planning an overall logical structure. This approach might work at the individual level and while the number of documents and categories remain relatively small, but in the long run, and especially for a document repository shared by a number of people, a more systematic approach based on sound principles of document arrangement is required. It is proposed in this paper that the application of the accepted principles of bibliographic classification, more specifically faceted classification, should be used to construct a logical and useful system of folders for general use in business enterprises.

The research project

To address the problem of how to organise electronic documents in small businesses a research project was initiated in 2001. The main goals of this project was to identify what the most important categories of information for small businesses are, to identify current practices of information organisation, and to develop new instruments for organising information with the specific needs of small businesses in mind.

Two separate empirical investigations were undertaken as part of the project. One of these (Project A) looked at the information needs and information organisation practices of 24 small enterprises in three different regions of South Africa (Denner, 2003; Denner & Van der Walt, 2004). These enterprises were all located in developed communities, and nearly all of them were using one or more computers. The enterprises included in the survey all had less than 50 employees, with 15 (62%) of the 24 between 1 and 10 employees. A wide variety of business types were included: an architect, an auditor, a law firm, a butchery, a computer shop/Internet café (2), graphical design companies (2), a stationery and gift shop, an independent newspaper, a school, training companies (2), furniture stores (3), a florist, a nursery, a gymnasium, a roof construction company, an electrician, a paint store, a timber merchant, and a company that sells pumping equipment.

The other investigation (Project B) gathered data from 17 small businesses in a developing community near our University campus (Magagula, 2002). None of these businesses were using computers, but the investigation of the manual documentation systems also shed some light on the information needs and information organisation practices of small businesses. The data were collected in these two projects by means of questionnaires completed on site during interviews with the owners/managers of the businesses. The questions focussed on establishing what information was regarded as the most important (business-critical) and how the information was organised. The questionnaire data were supplemented by observation of the relevant information systems.

One of the outcomes of the research project was a generic classification scheme, designed according to the principles of facet analysis, for use in SMMEs to organise electronic resources (Van der Walt, 2004). A basic point of departure in the design of this scheme was that business processes and related business concepts should feature prominently. These are the concepts that people in business are familiar with, and they should therefore be able to apply such a scheme with the minimum of training.

Research questions

The following two research questions were formulated to ensure that the objectives of the study were reached:

1. What information is regarded as business-critical in small enterprises?
   To understand *how* information is being organised in small businesses at present, and to be able to design new systems for information organisation, it is clearly necessary to know *what* information has to be organised, and especially what is regarded as important by the business people themselves. In the business literature some authors refer to the concept of "business-critical information", meaning information that the business cannot do without, and that is therefore critical to the survival of the business (Duncan, Beckett & Marsh, 1998). Unfortunately, the literature is not very specific about what information should be regarded as business-critical – usually just a few examples are given rather than an exhaustive survey of types and topics. It was, therefore, decided to establish in detail what the managers of the businesses surveyed consider as the most important information, so that this could be taken into account in the construction of a classification system for business information, e.g. for determining main classes and for establishing the citation order in the case of compound subjects.
2. What is the current situation with regard to information organisation and retrieval systems and practices in the businesses?
   This question deals with the primary focus of the investigation and includes determining which electronic systems are being used and how computer files, email messages and Internet addresses are stored in folders.

Results and discussion

The results presented below come mainly from Project A as these enterprises were the ones using computers. References to the manual systems observed in Project B are made where applicable.

Business-critical information

The respondents rated the importance of information for the different business processes as set out in Table 1. The rating was done according to a five-point scale with 1 indicating "no importance" and 5 "critical importance".

Table 1: Importance of information for major business processes

Business processes	Average rating
Financial management	4.7
Production/Service delivery	4.3
Marketing & Sales	3.9
Purchasing	3.8
Strategic management	3.3
Personnel management	3.1

Information for the purposes of financial management was clearly regarded as the most business-critical. The business process where information is of least importance for the businesses surveyed was personnel management. This can be explained by the fact that 62% of the enterprises surveyed fall into the categories of very small and micro, which means that they have between 1 and 10 staff members. Because many of the businesses have very few staff members, these often being family members, information for personnel management is not of a critical nature. The larger enterprises with more employees regard information about labour legislation, performance evaluation and other personnel management information as very important.

It should be noted that, although information for some business processes is clearly regarded as more important than others, all the processes received an above average rating, 3 being interpreted as average on the rating scale. Therefore, none of these processes can be disregarded from the point of view of organising the information.

There was not a big difference in importance between internally created information and information from external sources, with average ratings of 4.5 and 4.3 respectively, indicating that both categories are regarded as very important.

More detailed results of the importance ratings of specific aspects of the business processes, classified into the internal and external environment, are given in Table 2.

Table 2: Importance of information about aspects of the environment

Internal environment	Average rating of importance	External environment	Average rating of importance
Debtors	4.8	Special needs/requests of customers	4.4
Creditors	4.8	Customers/Potential customers	4.3
Sales figures	4.2	Suppliers	4.3
Production costs	4.0	Marketing strategies	4.1
Product design	4.0	Technology	4.1
Employment conditions & benefits	3.9	Competition	4.0
Product information for marketing	3.8	Legislation & government policy	3.7
Activities of sales representatives	3.8	The economy	3.5
Production figures	3.7	Strategic planning	3.3
Personnel training	3.5	Social & cultural factors	2.9

Stock levels	3.5	Political developments	2.4
Knowledge & skills of staff	3.2	Ecological issues	2.2
Job descriptions and analysis	3.2		
Performance evaluation	3.0		

The indication of these results that financial and customer information are regarded as the most important categories, is supported by results obtained from the small businesses in developing communities in Project B.

Information organisation practices

This section contains an analysis of the main topics and features identified in the folder systems observed in the sample of small businesses. The purpose of the analysis is to point out important concepts and classificatory principles and practices that might be employed in the design of the proposed generic scheme, as well as practices that are not in accordance with accepted classification principles and should, therefore, perhaps be avoided.

It was observed that many of the concepts in folder names can be related to the business processes. Especially prominent were folders related to *finance*, e.g., accounts, assets, creditors, debtors, expenditure, financial statements, income, invoices and tax-related documents, and *customers*. Financial documents were often subdivided chronologically by folders for calendar years, e.g., invoices subdivided by 2001, 2002, etc. Customer/client folders were subdivided in different ways – by individual customer name, customer number or grouped into categories, e.g. businesses, churches, doctors, farmers, mines, schools and sports clubs. The observation about the prominence of financial and customer folders confirms the results obtained with the questionnaire and interviews, namely that financial and customer information were rated as the most important categories of business information by the respondents (see Table 2).

Examples were also found of folders that can be related to the *products or services* of the companies, e.g., price lists, guarantees, stock inventories and folders for specific categories of products such as course materials, grass, poles, logos and signs, the *human resources*, e.g., staff forms, staff circulars, job descriptions, salaries and disciplinary reviews, and *marketing and sales*, e.g., advertisements, marketing letters, quotes, orders and payments. Many folders were unique to individual businesses, e.g., folders for specific products, services and staff members – these should obviously not be included in a generic classification scheme intended for all small businesses, but instructions for the addition of such topics should be included.

Folders that were not directly related to business processes include the following:

Many folders referred to various *document types*, e.g., correspondence/letters, document templates, certificates, company logos, contracts, databases, emails, manuals, photos, reports and spreadsheets. Some of these types were used as subdivisions under topical folders that relate to business processes, but some were used as top level folders, indicating documents of a general nature. In some cases a document type folder was subdivided by topical folders, implying a citation order where the document type is given preference over the business topic. Microsoft system files such as My Documents and My Pictures, which were also used by many of the businesses, of course also imply a preference for arrangement by document type on the highest level of the citation order (see criticism of this practice below).

In a number of cases folders named for specific *staff members* or groups, e.g., typists, were observed. These were not used for documents about the staff members, in which case they could be subordinated to a human resources folder, but for documents *created by* them. It seems logical to keep all your own documents together, especially when storing the documents on a central server or when you have to share a computer with someone else. Typists and secretaries often take this practice one step further and save all documents created

for other staff members under the name of the person. The problem with storing documents under the name of the originator is that people leave the company or move to another department where they assume new duties. In the case of people-based folder systems with idiosyncratically designed subfolders, it can be very frustrating and time-consuming for a new incumbent of a post or other staff members to figure out where documents about a specific topic have been stored. This problem can be avoided if everybody uses a standardised system based on a classification of topics directly related to business processes and other business concepts.

Also prevalent were folders related to specific *computer programs*, e.g., Corel Draw, Lotus, Microsoft Excel and Word, Norton Antivirus and Pastel (an accounting program). In most cases, these folders only contained the program files and were probably automatically created when installing the program. In some cases, however, the program name was used for a top level document folder, subdivided by topical folders relating to business processes or document types as described above, e.g., a series of customer folders under Corel Draw (a program used to design logos and other graphics for the customers), or customer folders under Pastel for financial files created by an auditing firm.

In the opinion of the author of this paper, the classification of documents according to the computer program used should be discouraged. From the point of view of document retrieval, especially browsing by means of a program such as Windows Explorer, it is not particularly useful to group together all documents created with a specific computer program, and in that way separating documents dealing with the same business topic. An arrangement collocating all documents on a specific topic is more logical and useful.

It should be noted, however, that some programs force the user to use a built-in folder system, or do not make provision for an option to change the default folder. Email systems and Internet browsers are typical examples of programs where one has to use the built-in folders, e.g., Inbox, Sent items, Favorites and Bookmarks, or your own folders created within such a folder system. It is suggested that the classification scheme for electronic business documents as set out in this paper also be used as the basis of folder systems for organising email messages and the addresses of Internet resources. This will mean that the staff member need only learn one system which is applied in different document collections. This is similar to the situation in libraries where parallel arrangement of collections such as books, serials, reference works and a children's section, using the same classification scheme, is a well-known phenomenon (Rowley & Farrow, 2000, p.338). Email attachments and Internet downloads should be saved in the same folder system used for other company documents.

With reference to the distinction made between internal and external information resources it was observed that the great majority of folder names imply internally produced documents. External sources are mainly material received from suppliers and the government. These are often in printed format and are therefore not reflected in the electronic documentation. Electronic versions are sometimes received as email attachments or downloaded from the Internet.

In all the folder systems with more than 10 folders some form of *subdivision with subfolders* were observed. These subdivisions were both of a hierarchical and syntactical nature. Relatively few instances of hierarchical subdivision were found, some examples being My Documents\Attachments, My Documents\My Pictures, Templates\Letterheads, Churches\Name of specific church and Political Parties\Name of specific party. The majority of subfolders represented syntactical subdivision, e.g., Emails\Business, Company name\Letters, Quotes\2002, Quotes\Churches, Design\Certificates, Financial statements\Farmers, Company name\Advertisements and Price Lists\Name of Supplier.

As can be seen from the examples in the preceding paragraph, the combination of concepts usually involves a subject heading and a document type. There is, however, no consistency in the order of these two types of concepts – in some cases the subject comes first and in others

the document type. In the systems observed there seemed to be a tendency to prefer the type of document rather than the subject term involved. This is not in line with the *citation order* usually found in bibliographic classification schemes such as the Dewey Decimal Classification (where document types are provided in the table of standard subdivisions) and advocated by writers on classification theory (e.g., Foskett, 1996, pp.151-155; Rowley & Farrow, 2000, pp.169-171). The apparent preference for document type in the business folder systems might be a case of the easy way out. It is easier to determine the form of a document than the subject, and it is also difficult to construct a logical classification of subject headings. It is suggested that a logically constructed classification system for business information, such as the one proposed in this paper, will make it possible for businesses to categorise documents containing subject and document type concepts in a consistent manner. If the theoretical principles of citation order can be applied, the citation order should be Subject : Document type in most cases.

The arrangement of all the folder systems observed were purely *alphabetical* at each level of subdivision. This was also the case in the manual systems observed in Project B. No instances were found where a notation was used to produce a systematic arrangement of folders. A disadvantage of alphabetical arrangement is that the order of the folders is not always logical, for example the General folder, which one would expect to find at the beginning of a series of folders in an arrangement that progresses from general to specific, would be under G. Folders for related documents will also be scattered throughout the alphabet according to the chosen subject headings. However, alphabetical arrangement also has advantages. It is generally known and used, especially in the electronic environment, e.g., in Internet directories such as Yahoo! It also makes it very easy to add new concepts, as opposed to a notational system where hospitality of the notation is a major problem. Taking both the advantages and disadvantages of alphabetical arrangement into account it was decided to use a mixed approach in the scheme proposed here. This approach is explained in more detail in the description of the scheme below.

A generic classification system for business information in SMMEs

Based on facet analysis of the concepts identified in the literature, and in the actual information systems observed in the small businesses, a classification scheme that should be suitable for use in a variety of business enterprises in the SMME sector, with limited adaptation for local circumstances, was constructed. The outline of the scheme is as follows (the full scheme is given in Appendix A):

0 General documents
1 External environment
2 Management (General)
3 Finance
4 Human resources
5 Products & Services
6 Marketing & Sales
7 Customers
8 Special collections
9 Other subjects

In the discussion below the principles involved in the construction of the scheme are explained. (The reader should refer to Appendix A where necessary.)

The classes

The main facets identified in the analysis of the concepts are *documentary forms*, the *external environment*, internal *business processes* (general management, financial management, human resources management, production, research and development, marketing and sales and customer relationship management), *human resources*, *products and services* and *customers*. These facets, as indicated in the headings of classes 0-7, together with classes 8 and 9 form the main classes of the classification scheme.

Class 0 makes provision for document types of a general nature (compare Dewey class 000 and the standard subdivisions). Document types associated with a specific business process or other topic are enumerated under the topical class, e.g., auditor's reports, budgets and invoices under class 3 (Finances) and product manuals under class 5 (Production). Documents should be classed in 0 only if they do not belong under a more specific other class. The subdivisions of class 0 can be used to subdivide any of the other classes should the need arise. To illustrate this, some of the form headings are enumerated under other classes, e.g., Meetings: minutes and agendas under Management (General).

Class 1 (External environment) makes provision for documents obtained from external sources, e.g., downloaded from the Internet or received as email attachments, and dealing with topics in the environment that might be of importance for strategic planning in the organisation. Internally produced competitive intelligence reports about the environment should also be classed here.

Class 2 (Management (General)) contains all management processes that do not belong under one of the main business processes in classes 3-7.

Classes 3-7 covers the specific business processes generally recognized as essential for any enterprise to operate successfully. Whether these are to be seen as processes or other types of facets of a business depends on the terminology used: finances, human resources, products and customers are not process concepts, but financial management, human resources management, production and customer relationship management (CRM) are. This distinction is important from a theoretical point of view, but perhaps not for the practical application of the scheme to arrange documents. For the purposes of using the headings of the classification scheme in a document retrieval system, e.g., as folder names, it will be convenient to use the shortest possible form, e.g., Customers, rather than Customer relationship management.

The process *Research and development* is included under *Products & Services* on the grounds that R&D is mostly concerned with developing new products and services. In cases where R&D plays a company-wide role it should be moved to *Management (General)*.

It can be argued that *class 7* (Customers) should be subsumed under 6 (Marketing and Sales), as CRM is a responsibility of the marketing department. Customers form a separate class in the suggested scheme to emphasize the importance of the customer as an element of a business ("the customer is king!"). In the empirical study information about customers was also rated as very important by the respondents.

Class 8 is left vacant for any special class of documents required by an enterprise, but not covered by the other classes. In a folder system for storing electronic documents on a network server class 8 could, for instance, be used for confidential documents, in which case the whole folder can be password-protected. Documentation relating to cross-functional projects could also be placed here.

Class 9 is available for documents on topics that are not specifically business-related, and therefore not provided for in classes 0-8, but that might be regarded as useful to store for whatever reason. Alphabetic class headings may be created as needed, or a standard classification scheme may be used to subdivide class 9. Using the Dewey classification for organising Internet favourites, one could, for instance class an electronic dictionary at 94 (using the 4 from Dewey class 400 Languages) and a website with information for travellers at 991 (using 91 from Dewey 910 Geography and Travel). When using such a general

classification scheme to subdivide class 9 care should be taken not to class documents here when a suitable place is already provided in classes 0-8.

Order and notation

One might ask why a notation (0-9) is used for the main classes and whether a pure alphabetic arrangement would not be easier to understand. The purpose of the notation is to maintain the order in which the classes have been set out in the scheme. There is a logic in the order which might not be obvious to the casual observer. An accepted principle of classification, and one applied intuitively by most people not trained in classification, is that the order of arrangement should be from general to specific (Buchanan, 1976, p.26; Foskett, 1996, p.156; Marcella & Newton, 1994, p.9-10). This order is reflected in the sequence of classes starting with documents not restricted to specific topics, followed by the external environment, general management and then the specific business processes and other business concepts. There is also some logic in the order of the specific business processes. One can argue that a business first needs financial and human resources before products can be manufactured and services delivered. Marketing and sales depend on the availability of products and services to market and sell. The customer is at the receiving end of the chain of business processes.

Another principle related to the general-specific order is the principle of inversion, according to which the filing order of facets in a classification scheme should be the reverse of the citation order (see section 4 above). Citation order in the proposed scheme applies mainly to the combination of concepts referring to *document type* and *business topics* (see section 6 above). For example: Where do you class a human resources database, a newsletter for customers or a policy document on information management? It is suggested that documents such as these should go with the topics (human resources, customers and information management) rather than with the document types (database, newsletter and policy document). If the user of the scheme knows that the important topical concepts are lower down in the schedule and the less important form concepts are in class 0, then it is possible to consistently decide where to class a document where both topical and form concepts are present.

It should be clear that a notation is necessary to maintain an order based on theoretical principles such as those set out above. Pure alphabetical arrangement would lead to an order of classes that is not in accordance with the principles of classification. The notation could also be used on lower hierarchical levels to get more logical arrangements, but an alphabetical arrangement of classes at these levels makes it easier to add new classes as required and is more well-known to the ordinary business person than a notational system.

Should the numerical notation of 0-9 prove to be too restrictive for a business that wants to add further main classes, it can easily be replaced by an alphabetical notation.

Specificity

For practical reasons it was decided to limit the scheme to two levels of subdivision below the main classes. In the case of folder systems where the user has to browse by opening folders one after the other in order to locate the required document, it is advisable to avoid deep hierarchical structures. Very small businesses might not need all the classes provided in the scheme, whereas larger businesses (or even information-intensive small businesses) might need to subdivide some classes further. The alphabetic arrangement of classes below the main classes makes it easy to delete or add classes as needed by specific companies. An alternative to creating subfolders for collocating certain documents is to allocate file names according to prescribed conventions for specific classes of documents, so that these documents sort together automatically.

Conclusion

One can conclude that it has proved possible to design a generic classification scheme for business documentation based on an analysis of the concepts found in actual systems observed in the sample of small businesses investigated, supplemented by concepts taken from the literature. Business processes and related business concepts form the backbone of the scheme. The system was designed with electronic documents in mind, but there is no reason why it should not be equally valid for the organisation of hard-copy documents. The empirical investigation was limited to small and micro enterprises, but as the structure of the classification scheme reflects a generally accepted grouping of concepts according to business processes/functional areas, the scheme should also be applicable in larger enterprises. These business processes and concepts are universal – therefore, although the empirical study was limited to South African enterprises, the classification should be useful to businesses in other countries with minor adaptations.

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Appendix A

Classification scheme for business information in SMMEs

0 General documents

(Use class 0 only when a document cannot be classed in 1-9 below. Use these document types as subdivisions under classes 1-8 when needed)

Annual reports
Correspondence
Databases (general enterprise-wide databases)
Journals (use for external journals and magazines)
Maps
Meetings: minutes and agendas
Newsletters/Bulletins (internal)
Newspapers
Pictures (including company logo, clipart, graphics downloaded from the Internet) – use instead of the Windows file My Pictures
Policies and procedures (use for company-wide manuals)
Reports (see also Annual reports)
Templates - use for internally produced document templates (e.g., company stationery)

1 External environment

(Class here documents about external factors that might impact on the enterprise, influencing strategic decision-making)

Competitors (company profiles, news items, management profiles, SWOT analyses, etc.) - subdivide by company name
Consumer associations - subdivide by name
Ecological issues (pollution, climate, global warming, etc.)
Economic issues (exchange rates, inflation, tourism, etc.)
Government (laws, regulations, policies, projects, investigations, etc.)
    Local (Municipality)
    National (subdivide by Department)
    Provincial
Industry/Trade Associations - subdivide by name
Labour unions - subdivide by name
Market analyses
Political issues (elections, human rights, political parties, etc.)
Social & cultural issues (changing demographics, customs, religion, etc.)
Suppliers/Service providers - subdivide by name
    If necessary, subdivide each supplier as follows:
    Contracts and agreements
    Correspondence
    Orders
    Products/services (catalogues, price lists)
Technology (IT trends, new production technology, etc.)

2 Management (General)

Customer relationship management (class in 7)
Financial management (class in 3)
Human resources management (class in 4)
Information (& knowledge) management (including access to information)

Marketing management (class in 6)
Meetings: minutes and agendas
Mergers & acquisitions
Physical resources management
Production management (class in 5)
Public relations management
Quality management
Restructuring
Risk management (emergency planning, security, etc.)
Sales management (class in 6)
Strategic planning (business plans, mission statements)

3 Finance (financial management)

Auditors (reports, correspondence)
Banks – subdivide by name
    If necessary, subdivide each bank as follows:
    Bank statements
    Contracts
    Correspondence
Budgets
Creditors (statements & receipts) – subdivide by name
Debtors & debt collection (including overdue notices) – subdivide by name
Financial reports (income, expenditure, turnover, cash flow)
Insurance (of assets)
Investments – subdivide by financial institution
Invoices & orders (arrange by invoice number)
Municipal rates & taxes
Petty cash (invoices)
Physical assets (asset register, contracts & agreements, guarantees)
    If necessary, subdivide as follows:
    Buildings
    Computers
    Furniture
    Telephones
    Tools/Machinery
    Vehicles
Rental (premises & equipment)
Taxes (company tax, unemployment tax, VAT, tax assessments, etc.)

4 Human resources

Advertisements (job vacancies, job descriptions)
Affirmative action
Applicants (CVs, correspondence, etc.) - subdivide by name
Career development (see also Training)
Health and safety
Housing scheme
HR database
Insurance benefits (group, unemployment, short term)
Labour relations (discipline , grievance procedure, disputes, strikes, arbitration)
Leave
Medical scheme

Motor vehicle scheme
Pension fund
Performance appraisal
Remuneration (compensation, salaries, wages)
Skills inventory
Social functions
Staff (staff members, ex-staff members and agents) - subdivide by name
Training (in-service) (courses, timetables, training materials)
Workplace skills plan (skills development)

5 Products & Services

Accreditation (e.g., of training courses)
Course materials (curriculum, handbooks, question papers)
Equipment (machinery and tools, including instruction manuals)
Materials (raw materials and components used in production)
Product manuals/instructions
Product specifications
Production costs (calculations, reports)
Production figures (statistics)
Production processes
Quality control (including standards)
Research & development (projects, reports) [If preferred place in class 2]
Stock inventories

6 Marketing & Sales

After-sales service
Delivery notes
Market research reports (internal)
Order forms
Price lists (prices/fees of the company's own products/services)
Product descriptions (catalogues)
Promotions (marketing plans, campaigns, sales promotions)
Publicity materials (advertisements, information sheets & brochures, newsletters)
Sales figures/reports
Sales representatives reports – subdivide by name
Tenders

7 Customers

Certification (proof of training courses attended/passed)
Competitions
Customer database
Customer service
Functions (social, prize-giving, etc.)

Individuals - subdivide by name or categories, e.g., tourist guides, students, secretaries
Organisations - subdivide by name or category, e.g., businesses, churches, farms

If necessary, subdivide each customer as follows:

Contracts and agreements
Correspondence
Logos
Orders
Quotes & proposals

8 Special collections

Use for categories of documents that should be stored separately from those classed in 0-7, e.g., documentation of cross-functional projects and restricted access documents.

9 Other subjects

Use for documents on subjects that might be of interest to the company, but do not fall under any of the subjects listed above. Create subject headings as the need arises, or adapt a general classification scheme such as the Dewey Decimal Classification. In the latter case the numbers from the scheme can be used for subdivision after 9, e.g.,

91 Philosophy
92 Religion
93 Social Sciences
94 Languages
95 Science
96 Technology
97 Art
98 Literature
99 History, Geography, Biography