CHAPTER SIX

6. TIME AS A MEASURE OF ACCOUNTABILITY

6.1 Introduction

Chapter five reviewed an attempt to study the use made of information resources in a Cape Town law firm during the period of one month. The hypothesis that the value of information services could be expressed in the causal relationship between cost and use was tested with reference to the incidence of reference and research work in an organisation. The cost effectiveness of information resources and services were not adequately determined by the operational use study. What, emerged, however, was the belief that greater attention should be paid to accountability regarding the time dedicated to developing the information services.

Chapter six reports on the development of time keeping as a best practice for library and information services in a corporate environment.

6.2 Development of the time-keeping record

The investigation of time keeping as a measurement of value was derived from the assumption that there was a correlation between the input cost of labour and output by way of measurable operational activities.

6.2.1 Definition of terms

Various terms were identified that expressed a relationship between operational activities and the time taken to accomplish them.

- Time monitoring and time measurement: expressions that indicated the existence of a standard against which to measure the time taken to perform an activity.
- Time management and time allocation: the suggestion that time was artificially manipulated to satisfy certain management criteria.
- Time-keeping, logging time: neutral expressions suggesting an objective record of events without reference to standards or expectations. The nautical and
aeronautical log was “...a record of performance, events, or day-to-day activities” (http://www.yourdictionary.com/cqi-bin/mw.cgi). Log was the preferred choice of name for the transactional record; time-keeping was used to describe the process.

6.2.2 Origin of the practice of time keeping in a corporate library

The methodology employed in the collaborative cost accounting study, Infospend, enabled an organisation to determine the cost of maintaining an information service with regard both to the cost of resources and also with regard to the cost of labour. For the purposes of this study the cost of labour was viewed as the cost to company of information professional time.

The practice of keeping time in a corporate library was initiated in a study of operational use in a Cape Town law firm in September 2000. Information professional time was logged during the period of the study (Appendix 7.7) by supplying a brief description of the task and noting the time engaged on its completion. At the end of the study period the narratives were analysed and categorised into 14 operational tasks. The percentage time spent on each of these 14 tasks was represented graphically in Figure 9 in the previous chapter of this research study.

What was not represented in that figure was the significant amount of unallocated time, defined as the difference between the optimum time worked (400 minutes per working day) and the time logged. Of the 8000 minutes worked during the month of September 2000 the log accounted for only 4370 minutes. The results of the study were compromised by this low return but the concept was not discredited. The potential for facilitating accountability prompted efforts to design a more useful log.

The September time-keeping record failed also to distinguish between operational activities and operational objectives. Activities were monitored with regard to the task or skill-set that was performed rather than with a view to the reasons for performing the activity. One of the activities identified in the September study was that of correspondence, a category which specifically included the time spent on electronic mail (e-mail) and preparation of documentation to be faxed. Included in this category were communications with internal colleagues, with publishers and
suppliers, professional contacts by electronic mail and listservs, and personal communications. Measuring the extent of regular electronic communications relating to the provision of information services was useful for gauging the level of electronic proficiency. The nomination of a category "correspondence" was, however, found to be too diverse to yield useful management data. For the purpose of creating a management best practice the log was better served with redefining activities in accordance with operational and strategic objectives.

6.2.3 Re-creating the log

Two principles motivated the development of a new time log. These were:

- The failure in September 2000 to account for the full working hours undermined the efforts to determine the input cost of information services. In the new log the principle of a 400-minute working day was proposed as the optimal period of productive activity in order to satisfy the employment contract.
- Early time-keeping efforts were exploratory and difficulties emerged with regard to the definition and delimitation of tasks. Care was therefore given in the new log to the identification of operational activities in line with strategic and operational objectives. The need for adaptability with regard to identification of tasks was addressed and provision made for changes to be made to the log at any stage.

Fourteen activities were identified in the pilot study in September 2000. At the end of the period these tasks were reviewed and nine operational activities were identified (Appendix 8.1). The operational activities aggregated in three principal areas of management responsibility, namely collection maintenance, client services and professional accountability.

A data capture record was designed with certain specifications in mind and was developed using an Excel spreadsheet (Appendix 8.2).

- Primary transactional details included working day of the month, date, department, client and a brief narration of the matter.
- Each coded activity was assigned a field on the data capture form and data relating to time spent on an activity was entered into the relevant cell. Time was
noted under the relevant type of operational activity and, where relevant, by department.

- Calculations were performed using formulae. The primary arithmetical calculation was based on the premise that the information professional had to account to the company for 400 minutes of daily working time. Formulae were created to calculate the percentage time spent on each operational activity and, where relevant, the identification of departments and individual practitioners for whom specific services were provided. These calculations were performed automatically as the data was added to each cell.

- Provision was made for future cost recovery by identifying two notional charge-out rates corresponding to standard and premium library and information services.

The identification of standard and premium services was a controversial practice (Cram 1995) but it was seen to be a *de facto* practice in the pricing structure of certain independent library and information consultants (OSALL, 2000). Consultants typically levied one rate to perform so-called "housekeeping" tasks like looseleaf insertions and annotation of law reports and statutes. A higher rate was typically levied to conduct research for practitioners.

In the development of this log provision was made to account for the cost of labour according to the perceived value of the services. It was proposed that time spent on housekeeping activities was logged at a standard rate corresponding to the cost to the law firm of employing the information professional. Time spent on client (user) services such as research, current awareness and practitioner training was logged at a premium rate. This higher rate corresponded to three times the cost to the law firm of employing the information professional. The higher rate was consistent with cost recovery practices of professional services (Dyke, 2000). Client services were levied at the higher rate in order to recover product and service development costs that could not be levied to housekeeping costs or to client services.

One of the significant improvements in the development of the new time log was more careful attention to defining the operational activities that were performed by means of electronic mail. Correspondence with publishers, distributors and suppliers was generally identified as a housekeeping activity; internal and external correspondence relating to requests and research were identified as research; time
spent monitoring and responding to professional listserv communications was
itemised under professional development.

6.3 Implementation of the time log

The time log was prepared for a 2 January 2001 launch in the same organisation
where the September 2000 operational value study was undertaken. The
spreadsheet file was opened at the start of each day and was left running in the
background to reduce delays in adding data to the log. Data relating to time was
logged as each operational activity was completed or set aside. Accuracy was
considered to be a priority, particularly with regard to reference and research
requests that could be charged to a client account. The formulae automatically
updated data and performed calculations to determine ratios and percentages.

The figures were checked and reconciled at the end of each daily session. At month
end the percentages were copied to the monthly analysis table (Appendix 8.2). The
entire sheet was copied in order to replicate the structure for the new monthly log and
secure the formulae that calculated the percentage time spent on each operational
activity.

The log was amended at various times; with reference to the narration it was also
possible to create new or different categories.

- The category "training" was differentiated during the course of June 2001 and the
data reallocated retrospectively;
- “Lost time” was a category that was added in March 2001 to provide for
  interruptions to core activities as a result of personal or corporate matters.

6.4 Log results

The time-keeping record was based on the assumption of accounting for 400 minutes
per working day. Tasks were logged in minutes as soon as each activity was either
completed or set aside. The formulae automatically calculated the time taken for
each operational activity as a percentage of the total time worked. When data was amended the totals were automatically recalculated.

For comparative purposes the data from September 2000 was re-interpreted to coincide with the nine operational activities determined in the new 2001 log.

Table 3  Comparative results of time-keeping exercises

<table>
<thead>
<tr>
<th></th>
<th>COLLECTION DEVELOPMENT</th>
<th>CLIENT (USER) SERVICES</th>
<th>PROFESSIONAL ACCOUNTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hk</td>
<td>Prod</td>
<td>Ref</td>
</tr>
<tr>
<td>Sept 2000</td>
<td>47%</td>
<td>1%</td>
<td>13%</td>
</tr>
<tr>
<td>Jan-Jun 2001</td>
<td>19.3%</td>
<td>6.0%</td>
<td>23.1%</td>
</tr>
</tbody>
</table>

- "Sept 2000" reflected the percentages represented in Figure 9.
- "Jan-Jun 2001" represented the average rates logged in the period January to June 2001.

6.5  Analysis

The three areas of management responsibility in which the designated operational activities subsisted were collection development, client (user) services and professional development and accountability.

6.5.1  Collection development

Levels of commitment to collection development remained relatively constant during 2001, averaging 19.3% for the period. This was far lower than the figure logged in September 2000. In that earlier time-keeping exercise the various tasks that together constituted the so-called "housekeeping" operational activities were logged individually. The degree of detailed task analysis exhibited in the September 2000 record (Appendix 7.7; Figure 9) was relevant to a consideration of the cost-effectiveness of outsourcing certain tasks. A decision to outsource a function such
as the insertion and updating of looseleaf pages, or annotation of law report and statutes, was objectively evaluated with reference to the average time taken over the activity in relation to the current cost of labour. Since the detailed identification of tasks was not required, all tasks identified with organisation and maintenance of the information collection were grouped as a single category, “housekeeping”.

New product development was distinguished from the other "housekeeping" tasks. Together with time spent on professional development, this category made provision to reflect the innovation and learning perspectives that Kaplan and Norton (1992: 72) identified in their balanced scorecard.

6.5.2 Client (user) services

- Reference and research services

The imperative to account for 400 minutes a day contributed to improved recording technique for all operational activities. Time logged to reference and research services during the first six months of 2001 showed a substantial increase over the time logged in September 2000. Suggestions from colleagues (Hodgson, 1999: 174; Geldenhuys, 2000) included collecting detailed records of reference and research questions. The ability to accurately identify labour costs of specific services created an enhanced awareness of the potential value of the log for recovery of costs, a topic to which this researcher returns in Chapter seven.

- Current awareness

Current awareness accounted for 2.3% of allocated time in the operational use study, 2000. One of the findings in September 2000 was the need for the current awareness service to be developed to meet the information needs of the practitioners. This was addressed in the new year by adding considerably to the scope and depth of coverage of the weekly bulletin. This decision increased the length of the bulletin to the point where many practitioners found it undesirable to read it on a computer screen. The option of a customised product to each practitioner became more appealing as the length of the bulletin grew, and when
practitioners were interviewed in March 2001, 77% elected to receive a current awareness bulletin that reflected their chosen areas of practice.

The level of customisation was client driven. In most cases the practitioners requested that they receive material relating to their areas of practice or to areas of personal interest. In some cases there were specific exclusions regarding the type of notices that were to be included in the bulletin. One practitioner requested case law and legislation only in eleven areas of practice but everything with regard to tax. Several practitioners requested material relating to labour, but expressly excluded trade union notices and agreements. This degree of customisation was performed manually and was therefore very labour-intensive. The time log reflected the increasing time spent on the weekly bulletin in the first six months of 2001.

Table 4  Percentage time spent on preparing weekly bulletin

<table>
<thead>
<tr>
<th></th>
<th>Percentage time spent on weekly bulletin</th>
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</thead>
<tbody>
<tr>
<td>January 2001</td>
<td>5.6 %</td>
</tr>
<tr>
<td>February 2001</td>
<td>9.8 %</td>
</tr>
<tr>
<td>March 2001</td>
<td>13.6 %</td>
</tr>
<tr>
<td>April 2001</td>
<td>13.6 %</td>
</tr>
<tr>
<td>May 2001</td>
<td>17.6 %</td>
</tr>
<tr>
<td>June 2001</td>
<td>16.8 %</td>
</tr>
</tbody>
</table>

The investment of time on current awareness was considerably more costly than the 2% of time logged that the September 2000 study indicated. The return on the investment of this time was neither clear nor unequivocal. There was some anecdotal evidence to suggest that practitioners regarded the weekly current awareness bulletin as a useful professional service. On many occasions requests for copies of material indexed to the bulletin were received within minutes of the bulletin having been distributed to a practitioner. This indicated their willingness to open the electronic mail and attend to its contents as a matter of urgency.

An attempt was made to determine the correlation between the distribution of the current awareness bulletin and the incidence of reference requests. The time spent on reference and research activities that were attributed to the current awareness bulletin was tabulated with reference to the narration.
Table 5  Percentage time spent on reference and research arising from the weekly bulletin

<table>
<thead>
<tr>
<th></th>
<th>Percentage time spent on reference and research as a result of the weekly bulletin</th>
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<tbody>
<tr>
<td>January 2001</td>
<td>2%</td>
</tr>
<tr>
<td>February 2001</td>
<td>2%</td>
</tr>
<tr>
<td>March 2001</td>
<td>3%</td>
</tr>
<tr>
<td>April 2001</td>
<td>2%</td>
</tr>
<tr>
<td>May 2001</td>
<td>1%</td>
</tr>
<tr>
<td>June 2001</td>
<td>1%</td>
</tr>
</tbody>
</table>

These figures related to reference and research work requested from the information professional. The data could not reflect instances where practitioners used the information to conduct their own reference and research work.

- Practitioner training

The percentage time spent on practitioner training during the month of September 2000 was 3.1% of the time logged (Appendix 7.7; Figure 9). The debriefing interviews at the conclusion of the operational use study established that certain practitioners were anxious to undergo informal training in the use of electronic databases and the Internet. In March 2001 interviews were held that followed the same pattern as the interviews six months earlier. In these latter interviews no practitioners requested formal training. Practitioners indicated that they preferred to enlist assistance on an ad hoc basis, frequently by way of telephonic support. Some practitioners preferred to delegate database and Internet reference and research to the information professional or to the candidate attorneys. The lack of urgency with regard to practitioner training was reflected in the lower average time (0.5%) noted to practitioner training at the end of the first six months of 2001.

6.5.3 Professional development

The high average percentage time allocated to professional development in the first six months of 2001 (20%) was indicative of a developing system, particularly with
reference to daily monitoring of professional listservs, creation and development of internal surveys, communication with colleagues, and evaluation procedures.

6.6 Discussion: merits of the log

There were several advantages of using a structured monthly form to log time spent on operational activities. These advantages included:

- the compulsion to allocate 400 minutes in each working day,
- the automatic updating of the percentages of time allocated to each category;
- the facility to compare month-on-month averages in order to detect anomalies; and
- the facility to average the results over a period of time to minimise the effect of seasonal fluctuations.

Time keeping was found to be a driver of productivity. The automatic updating of data was measured against the reality of the 400 minutes per day target, and this urged the information professional to account for operational procedures in a manner that would satisfy an internal audit.

The effect of this methodology was seen:

- to accurately determine the allocation of time in the provision of services;
- to analyse time allocation with regard to strategic and operational objectives;
- to account for the distribution of revenue relating to labour costs in the provision of services; and
- to predict with some accuracy the future allocation of time and input costs in the provision of services.

The time log could reveal when an inordinate amount of time was spent on practices and procedures that were not central to core operating objectives, defined here as those operations that did not contribute directly or indirectly to the operational effectiveness of the practitioners.
6.7 Conclusions of the study

Logging time was found to be one of the simplest and most effective tools in the performance evaluation process for the information professional. The allocation of time to certain operational activities measured the attention that was given to each activity.

The cost to company of each operational activity could be determined with reference to the time taken to perform the task and the cost of labour as determined according to the Infospend analysis (Item five). This suggested the potential to implement cost recovery procedures.

The time log was seen to drive productivity by demanding an account of time spent in the maintenance of library and information services. It was seen in this regard to operate as a best practice for corporate library and information services.

6.8 Summary

A time-keeping exercise in September 2000 inspired the development of a methodology to log the labour costs involved in the provision of library and information services. A time-keeping record was created that provided for 400 minutes per working day to be logged to a spreadsheet under one of nine operational activities. Provision was also made for so-called "lost" time that was not recovered by way of service development.

The methodology was proposed as a best practice for corporate library and information services in order to drive productivity and to demonstrate accountability.