‘Statement of cash flows: a new direct format method.’

‘A transaction-based approach to cash flow reporting and management’

Author: Miguel Angel Perez

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II) Author: Miguel Angel Perez

Institutional affiliation: National Public Accountant - Argentina. Member of the Consejo Profesional de Ciencias Economicas de la Provincia de Rio Negro, Argentina. License Book IV – Page 042.

III) Abstract

The 'direct method' of presenting cash flow statements has been the traditionally preferred format because of its accuracy. However, some authorities have argued that this 'direct method' is too costly despite its advantages. This research presents a new method of preparation with the aim of changing the actual trend in the international context. Its advantages are fast implementation, low costs, conformity to IFRS and no dramatic changes in data processing.

IV) Correspondence:

Miguel Angel Perez, 7 Batley Avenue, Hawthorndene, 5051, South Australia, Australia.

Mobile: +61 8 435479066. E-mail: miguelperez@estudiomap.com.ar

Office: Brentana 340, Cipolletti, 8324, Rio Negro, Argentina.

Tel: +54 299 4775093. Fax: +54 299 4770358. Skype: miguelperez1967.

V) Key words:

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1. Introduction

1.1 Importance

The relevance of the cash flow statement has been outlined in the accounting literature in the last thirty years. According to Trotman and Gibbins (2009), the statement of cash flow (SCF) illustrates the health of a business. Birt et al. (2005, p. 199) point out: 'Although business profitability is important, the cash flow is the most immediate item that can put a business into insolvency.' Le Maux and Morin (2011) state the important predictive role that the SCF has played in the most important bankruptcy in history, namely, that of the Lehman Brothers' investment bank. Opurt and Zang (2009) remark that the conversion from the indirect format of the SCF to the direct format line components has given rise to many difficulties and suffers from articulation problems. In addition, they confirm that the direct format of the SCF is highly accurate in predicting a firm's performance (Opurt & Zang, 2009). Nowadays there is a huge consensus regarding the importance of this report in the world (Wallace, Choudhury & Pendlebury 1997; Yap 1998; Fernandez 2002; Miller & Bahnson 2002; Broome 2004; Bradbury 2011). Hence, it is a mandatory inclusion in the set of business financial statements in many countries (McEnroe 1996; Wallace, Choudhury & Pendlebury 1997).

1.2 The debate

The debate regarding the format of presenting operating cash flows remains so far unsolved. The direct and indirect formats have advantages and disadvantages (Krishnan & Largay III 2000). Despite the efforts in the harmonisation process, it has been very difficult to reach an agreement about one common format. For instance, some countries mandated the direct format with reconciliation of net operating cash, and reconciliation of cash and cash equivalents (Wallace, Choudhury & Pendlebury 1997), such as New Zealand and Australia where Financial Reporting Standard (FRS) 10 and Australian Accounting Standard Board (AASB) 1026 were respectively issued. Other countries have adopted the International Financial Reporting Standards (IFRS) and standards issued by the International Accounting Standard Board (IASB) such as International Accounting Standard (IAS) 7 Cash Flow Statements, where direct and indirect formats are optional. Another example is Financial Accounting Standards (FAS) 95 issued by the Financial Accounting Standard Board (FASB) in the United States, where the formats are optional and the direct format requires the compulsory reconciliation of net cash from operating activities.

1.3 Contradictions

Despite the overwhelming support in favour of the direct format, the most common format used to present the SCF is indirect. This contradiction in terms of professional practice in many countries, underlines a problem in the harmonisation process (Bradbury 2011). According to ‘Accounting Trends and Techniques’, 2.56% of companies sampled used the direct method in 1995, down from 3.04% in 1988 (Krishnan & Largay III 2000, p. 243). ‘Accounting Trends and Techniques’ issued a survey produced by the American Institute of Certified Public Accountants (AICPA) showed that only seven (7) of the six hundred (600) sample companies used the direct format in 2000 (Miller & Bahnson 2002, p. 53). Broome (2004, p. 17) highlighted that more than 90% of important companies in the United States of America reported using the indirect format to present the SCF. Krishnan and Largay III (2000, p. 223) found in samples of four hundred and five firms (405) in the United States of America that the direct reporting format leads to a higher prediction for one-year future operating cash flows than the indirect reporting format. Other researchers restated the same contradiction (Cory, Envick & Patton 2011; Bradbury 2011).

The most prominent academic literature in this field emphasises the fact that the direct format is preferred by bank analysts, credit officers and managers (AIMR 1993). The IASB and FASB propose reporting the SCF under the direct format, and endore it as the most useful format for presenting the SCF (Miller & Bahnson 2002). In the same vein, Bradbury (2011) states that the format of presentation based on the most relevant standards of quality is also the direct method. Nevertheless, both IAS 7 and FAS 95 provide the option to present the SCF under the indirect method. IAS 7.19 remarks:

> ‘It is advisable to those making the cash flows using the direct method. This method provides information that may be useful in estimating future cash flows, which is not available using the indirect method.’

Clinch et al. (2002) concluded that the direct format of presentation has higher predictability for one-year-ahead operating cash flows, according to the experiences of Australian firms from 1992 to 1997. The same research asserted that the direct cash flow disclosures have substantial explanatory effectiveness for operating cash flow items rather than estimates based on other financial statements’ reports (Clinch et al. 2002). Habib (2010) restated the superiority of the current operating cash flow in predicting the future operating cash flows.

Klammer and Reed (1990) stated that different presentation formats of cash flow statements affect the decision taken by bank analysts and loan officers. Klammer and Reed (1990) revealed that the reporting format of the SCF significantly affects accurate financial answers evaluating the entity and loan variability responses given by experts working with the same set of financial statements. Therefore, the direct format reports minor variations and differences in resulting decisions. The Klammer and Reed (1990) study concluded that the direct format for SCF should be applied in all cases, and this was confirmed by Jones, Romano and Smyrnios (1995).

The majority of academics and analysts have postulated cost as the main reason for avoiding direct format in the SCF, the converse of the indirect format (Wallace, Choudhury & Pendlebury 1997; Broome 2004; Alexander & Nobes 2010; Bradbury 2011). The direct format with the reconciliation method seems costly to produce. However, Klammer and Reed (1990), and Bradbury (2011) have argued that there is no relevant evidence about the direct format cost of the SCF compared to the indirect format. Furthermore, it is not possible to determine the cost in terms of investors, financial analysts and loan officers to adjust the SCF from the indirect format to the direct format. The benefits for financial statement users outweigh the collective cost of reprocessing the SCF by users (Wallace, Choudhury & Pendlebury 1997; Broome 2004; Bradbury 2011). Similarly, Miller and Bahnson (2002) according to their contemporaries suggest that the software implementation cost is outweighed by the social benefits. Despite the amazing developments in information technology and the cost reduction in accounting software packages, companies are reluctant to accept the direct format of presentation arguing that it is too costly (Jones, Romano & Smyrnios 1995; Miller & Bahnson 2002; Broome 2004; Nicholson 2006; Alexander & Nobes 2010; Bradbury 2011).

1.4. Contributions

The main contribution of this paper is to demonstrate that the presentation of the SCF in direct format is a realistic rather than a costly option for companies. It outlines that the method is the main problem that needs to be overcome in order to present the SCF in the direct format. The aim of this paper is to shed light on the principles of the double-entry bookkeeping system that remain unexplored in many areas and sometimes underestimated by new technologies (Ijiri 1967, Kirkegaard 1996; Fisher 1997). At this technological stage, available resources and developments in the accounting profession allow the introduction of changes in current accounting software packages. Therefore, it is possible to obtain the SCF in a direct manner without traumatic changes and with a negligible cost to companies. 'Culled Transactions' delivers the operating cash flow components directly from accounting by using available information technology resources.

Kinnunen and Koskela (1999) outline the articulation problems both in the international context and specifically in Finland from 1995 to 1997. The non-articulation of the SCF with the balance sheet and income statement means that there are discrepancies between the information estimated and reported in the statement (Kinnunen & Koskela 1999). Moreover, Hughes et al. (2010) observe that operating cash flows cannot be easily estimated by accrual reversal procedures. Thus, the range of procedures comes back to the information technology arena.

In addition, the method explained in this research introduces a new auditing tool, to control the SCF based on accounting electronic databases and traceable procedures. Hence, the method minimises articulation problems. The SCF should not be a technical problem because all the transactions are based on facts rather than the special criterion of the preparers (Fernandez 2002; Broome 2004).

2 Literature review

2.1 Terminology: method or format?

According to the Cambridge Advanced English Dictionary a "method" is a particular way of doing something and a "format" is the way in which information or text is arranged according to a chosen pattern. Bradbury (2011) defines method in terms of the method of preparation, and format as the method of presentation. Hence, the debate is about format while method implies a problem of cost (Alexander & Nobes 2010). Another misconception about method or format comes from defining the SCF as a derivative statement of the balance sheet and income statement (Wolk, Dodd & Rosycki 2008). This definition gives the idea that the 'method' used to obtain the SCF involves the decomposition of data into cash flow from accrual basis accounting. Thus, the SCF becomes a method rather than a statement itself. The problem is 'how to obtain' the information required to present the report in direct format from accounting using the accrual basis.

The key to understanding the financial situation of a business lies in providing an appropriate explanation in terms of quality and quantity. The SCF must clearly explain variations in both terms. Furthermore, the format of presentation in the financial statements has an important influence in terms of the analysis and consequent decisions (Klammer & Reed 1990; Cory, Envick & Patton 2011).

There are manual and automatic procedures used to obtain the information required for the SCF. All of them follow different paths to obtain the same information. Examples of manual methods are:

- A comparative analysis of the balance sheet, profit and loss statement and cash journal which will bring the information required for both formats of presentation. For instance, cash receipts from customers equal the sales from the income statement plus the opening balance less the closing balance of accounts receivables. This manual process links a set of accounts from the balance sheet, and profit and loss statement, and compar their accounts' balances with the opening and closing accounting entries. 'Payments to suppliers for purchases' is another set of accounts that involves the cost of goods sold, inventory and accounts payables. The variation at the beginning and at the end of the accounting period for different accounts in the balance sheet, plus the balance on the accounts in the profit and loss statement, determines the amount in terms of inflows or outflows of cash. The variations in assets, liabilities and equity provide the information required to explain cash flow changes. For example, the cost of goods sold plus variation in accounts payable plus variation in inventory equals payments to suppliers for purchases. Each group of accounts are members of the same family and report different activities and cash flows classes (Hogget & Edwards 1996).

- Fletcher and Ulrich (2010) favour an algebraic approach and financial statement equations. The double-entry bookkeeping system with its debits and credits is considered by MBA students to be complex; and they also fail to understand its usefulness and managerial purpose (Fletcher & Ulrich 2010). The main idea is 'to explain in simple algebraic terms the preparation of the SCF to MBAs using financial statement equations' (Fletcher & Ulrich 2010, p. 17).

Fletcher and Ulrich (2010) illustrate their findings about leading American corporate finance texts in Table 1. According to the American Institute of Certified Public Accountants about 99% of surveyed companies reported the operating section using an indirect approach in their financial statements to shareholders in 2007 (Fletcher & Ulrich 2010, p. 17). It seems to be the reason why Needles and Powers did not include the direct format in their accounting text. In addition, Kimmel, Weygandt and Kieso like Phillips, Libby and Libby relegated it to the appendix (Fletcher & Ulrich 2010, p. 17).

Table 1 - Methods and techniques of cash flow statement

This table shows the presentation techniques of cash flow statement in leading accounting texts. (Fletcher & Ulrich 2010, p.17)

Fundamental Accounting Text	Direct	Indirect	Equations	T-Accounting	Worksheet
Harrison, Horngren & Thomas	Yes	Yes	Full equations	Yes	No
Kimmel, Weygandt & Kieso	Appendix	Yes	Simple equations (Appendix)	Yes	No
Needles & Powers	No	Yes	No equations	Yes	No
Phillips, Libby & Libby	Yes	Yes	Simple equations	Yes	Appendix

- T-Accounting, full equations and simple equations are included in most corporate finance texts. Table 1 informs of this approach according to Fletcher and Ulrich (2010). These methods are fully operator-dependent and relationships are determined based on manual procedures. Producing a SCF in this way depends on personal skills and the experience of the practitioner.
- Rai (2003) demonstrates that is possible to reconcile net income to cash flow from operations by means of the basic accounting equation. It is an example of a

manual procedure used to obtain the information required to present the reconciliation of the cash flows.

Examples of automatic methods include the following:

- Miller and Bahnson propose a model based on subsidiary or temporary accounts to follow the cash-flow transactions across the accounting records by modifying accounting software packages. The aim of the authors is to accelerate the adoption of the direct format with low costs and without dramatic changes in business procedures (Miller and Bahnson 2002).
- Another way to obtain the SCF under the direct method is with an enterprise resource planning software that identifies cash transactions with specific labels. Usually, it is the most expensive option. It involves the whole company and its processes. Implementing such an information technology project is costly, time-consuming, and also risky (Toomey 2009).
- Another example is the 'Accounting Unified System' presented by Stolowy in 1993 at the 16th Annual Congress of the European Accounting Association, Turku, Finland, April 1993. This method introduced two key points to consider, the unification of the data processing and the concept of 'object' to trace different transactions in the accounting. This method obtains the information required on-line. The data are taken 'directly from the financial accounting entries, instead of reanalysing the accounts' (Stolowy 1993, p. 1).

2.2 Information technology

The main disagreement centres on the costs of implementing the direct and indirect formats. The disagreement about the SCF format persists in spite of improvements due to software and computer technology. Academics have expected that better technology and lower costs could provide the opportunity to overcome this problem in the accounting profession (Wallace, Choudhury, & Pendlebury 1997; Miller & Bahnson 2002). It has been prophesied that the indirect format would have less support as a consequence of continuous improvements in software. However, until now such expectations remain unfulfilled. Only some countries in the world have adhered unconditionally to a direct format such as Australia and New Zealand. The expectations were realistic according to the technological evolution in accounting software. Nevertheless, many countries lack accounting software packages with features to produce cash flow statements under the direct format. As Kirkegaard has acknowledged regarding this problem (1996, p. 17):

> ‘Can the tragic credibility crisis of accounting be mastered by the accountants themselves or are accountants going to be led by others? Our choice is between being the follower or the leader in designing the accounting information systems of the future, and the time for decision is now’

The development of accounting software should open the doors to the direct format with negligible costs and without drawbacks at this technological stage.