

## **Identifying the Financial Literacy Skills Necessary to Run a Small New Zealand Business**

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## **ABSTRACT**

*The objectives of this paper are to identify the financial skills small business owners believe necessary to be successful in business, and to establish whether there is a role for secondary school accounting in contributing to the learning of these skills. A combination of a social network website and snowball sampling technique was used to invite small business owners to participate in the study. The social network website was used to promote the study, with research participants being directed to it for further information. Semi-structured interviews with 18 owners of 17 small businesses situated in the North Island of New Zealand were undertaken. English and maths were identified as being the most important subjects studied at secondary school that contributed to interviewees' understanding the financial side of their business. The small number of business owners interviewed means that the findings of this study may not be representative of the whole population of New Zealand small businesses owners.*

**Keywords:** financial literacy; qualitative methods; small businesses; New Zealand; secondary school accounting; accounting; financial skills; social network.

**JEL Classification:** M40

**PsycINFO Classification:** 3530

**FoR Code:** 1301; 1501

## Introduction

Individuals, households and, therefore, by implication, small businesses operate in an increasingly complex financial world (Greenspan, 2005; Johnston, 2005; Widdowson & Hailwood, 2007). They are expected to navigate a financial highway littered with an increasing number of financial demands, a diverse range of difficult to understand financial products, and new technological ways of accessing them (Feslier, 2006; Hogarth, 2002). Factors that contribute to the financial difficulties many individuals, households and small businesses face include but are not limited to: high levels of mortgage finance; expanding credit card use; and, 'interest free' deals; while tertiary students are expected to 'borrow to fund their investment in their education' (Feslier, 2006, p. 5). New Zealand is not immune to these issues. In the 20 years to 2011, household debt in New Zealand increased six-fold and was 147% of disposable income compared to 58% in 1991 (Reserve Bank of New Zealand 2011).

Financial literacy as a concept is most often researched in relation to individuals or households (Brown, Saunders & Beresford, 2006). The research literature broadly defines financial literacy as having the knowledge and skills to make sound financial decisions in an increasingly complex financial world (Johnston 2005; Widdowson & Hailwood, 2007). Individuals are most likely to 'budget effectively, invest wisely, and manage their debt level in a sustainable manner' (Widdowson & Hailwood, 2007 p. 38) and manage financial risk (Johnston, 2005) when they are armed with financial knowledge and skills. Increasingly, government and society expect individuals to manage not only their day to day income and spending, but also their long-term planning for retirement including saving, investing, and debt management. They are also expected to prepare for those occasions when their income may be temporarily reduced or zero (Atkinson, McKay, Collard & Kempson, 2007; Hogarth, 2002; Lusardi & Mitchell, 2007; Taylor & Wagland, 2011).

Not only then is financial literacy important from an individual perspective, it is also important for society. In a financially literate society, individuals engage in a positive way in both their communities and the wider society in which they live (Hogarth, 2002). This engagement occurs through: homeownership; engagement with their children's education, encouraging better future outcomes; and, through stable employment, contributing to the enjoyment of a higher standard of living (Widdowson & Hailwood, 2007). These all facilitate economic development (Hogarth 2006). Not only is financial literacy important for individuals, but as Widdowson & Hailwood, (2007, p. 38) argue, small business owners (who in the New Zealand environment include farmers) 'would benefit from a reasonable level of financial literacy'.

Recognising the rapidly changing financial landscape, particularly since the recent economic crisis (Commission for Financial Literacy and Retirement Income 2012; Financial Literacy and Education Commission 2012), a broad financial literacy agenda is being promoted by a number of governments internationally. These include Australia, Canada, New Zealand, the United Kingdom, and the United States (Atkinson et al., 2007; Chardon, 2011; Fox, Bartholomae & Lee, 2005; Taylor & Wagland, 2011). Most governments now have a national strategy for increasing the financial literacy of their citizens. The contribution that education programmes and initiatives make to the level of financial literacy of individuals has been researched in a number of countries including Australia (Ntalianis & Wise, 2011), the United Kingdom (Atkinson et al., 2007), New Zealand (O'Connell, 2007) and more widely in the United States (Fox et al., 2005; Hogarth, 2002; Lusardi & Mitchell, 2007; Mandell 2006). Education is seen as having a key role in enhancing the financial literacy levels of individuals so that they are equipped with the skills to make sound financial decisions (Atkinson et al., 2007; Feslier, 2006; Fox et al., 2005; OECD, 2006).

There is a considerable body of research which focuses on the knowledge and skills individuals need to successfully navigate their way through the financial decisions that can, and do, have a significant impact on their quality of life, particularly in retirement (see, for example, Atkinson et al., 2007; Lusardi & Mitchell, 2007; Lusardi & Tufano, 2009). Literature investigating the financial skills and knowledge small business owners possess to ensure their business generates an on-going income for them is, however, more limited (Brown et al., 2006; Samujh, 2011).

A number of studies acknowledge the benefit that studying accounting at secondary school has for those students who take the subject at tertiary level (see, for example, Engler, 2010; Rohde & Kavanagh, 1996; Samkin, Low & Taylor, 2012). However, what is surprising is that little if any research has been undertaken to establish whether studying accounting at secondary school level assists small business owners or others who do not study the subject at tertiary level. Given the current emphasis on financial literacy education, a recent New Zealand study by Samkin et al. (2012) canvassed the views of secondary school accounting teachers, university heads of department (accounting), and chartered accountants on whether accounting as a subject contributes to financial literacy, or whether the subject should be redesigned to better deliver financial literacy knowledge and skills.

Given the gap in the extant literature identified above, this paper has two objectives. The first is to identify the financial literacy knowledge and skills which New Zealand small business owners believe to be necessary to operate their businesses successfully. The second aims to identify which skills learned at secondary school New Zealand small business owners believe contribute to the successful operation of their businesses. To that end, this study sought the views of small business owners in particular on whether secondary school accounting has a role to play in teaching the financial literacy skills necessary to run a small business.

Semi-structured interviews were conducted with a diverse range of small business owners in the North Island of New Zealand. Rather than providing the interviewees with a list of skills and knowledge in a survey instrument or questionnaire format as has been done in prior research (see, for example, Huck & McEwen, 1991; Ball & Shank, 1995; Romero & Gray, 2002; Brown et al., 2006), this qualitative study asked interviewees to identify the financial skills that they saw as being important to the success of their business. The findings suggest that the financial skills identified by the interviewees as important in running a small business are broadly consistent with those highlighted in prior research. Additionally, the majority of interviewees did not believe that they had a complete understanding of their small business finances. However, those interviewees who had studied accounting at secondary school or participated in the Young Enterprise Scheme<sup>1</sup> programme believed that doing so had helped them to understand the financial side of their business.

<sup>1</sup> Sponsored by the Lion Foundation, the Young Enterprise Scheme (YES) began in 1981. Aimed at Year 12 and 13 students, the Young Enterprise Scheme allows students to get the chance to set up and run their own business for a year. The website explains the YES scheme as follows

*YES students will set up their company, create real products or services, compile and implement a business plan and make real profit or loss. For all students, the business knowledge they develop is supplemented by skills in teamwork, communication, problem solving, negotiation, and decision making. Students learn through experiencing the value of innovative thinking and develop enterprising attributes. YES is an incredible learning experience that thousands of students participate in each year* ([http://www.youngenterprise.org.nz/?page\\_id=960](http://www.youngenterprise.org.nz/?page_id=960)).

As investigation into the financial literacy skills that small business owners believe to be necessary for the running of their businesses currently appears to be a neglected area, this study provides a basis for further research. Additionally, this paper has the potential to impact policy. Given the recent emphasis placed on financial literacy by governments both locally and internationally, the views of these small business owners on the skills needed to successfully run a small business may be useful when the content of the secondary school accounting and related curriculum are reviewed. This paper is structured as follows. A review examines the literature surrounding small businesses. The New Zealand position is provided to contextualise the paper. This contextualisation includes highlighting the role small businesses play in the New Zealand environment, as well as the financial literacy and secondary school accounting education available in the country. The method used in the study, including how the data was analysed, is then described. Next, the results of the study are explicated. The results of the study are discussed before the paper is concluded.

## Literature review

There are important differences between small and medium-sized enterprises and large firms that are easily articulated. First, small and medium-sized enterprises combine ownership and management. Second, small and medium-sized enterprises possess limited resources. They usually do not have the same access to either the finance, or the financial and management skills available to large firms (Ekanem, 2010).

It is generally accepted in the literature that business success relies on sound financial literacy or knowledge and capability (Yusuf, 1995; Newton, 2001; Rogoff, Lee & Suh, 2004; Walker & Brown, 2004). In an earlier study of a developing country, Jamaica, owners identified: planning and budgeting; management; marketing/selling; advertising and sales promotion; merchandising; finance and accounting; personnel relations; purchasing; production; facilities and equipment; and, controlling risk as key competency areas necessary to successfully run a small businesses (Huck & McEwen, 1991). However, within these competencies, maintaining financial records, establishing good human relations, and planning goals and objectives were considered as being the most important (Huck & McEwen, 1991).

In their study, Ball and Shank (1995) set out to examine the educational needs of small business owners in the United States. Using a quantitative survey of 60 small businesses, their goal was to establish the importance of the various business functions including marketing, production, finance and accounting, management, and strategic or long range planning. Finance and accounting was found to be the most important business function. Within the accounting function, working capital management, financial planning and budgeting, accounting and taxation were considered to be most important, while product pricing in the management function category also rated highly (Ball & Shank, 1995).

The management skills and training needs of small business owners in the United States were examined by Romero and Gray (2002). They found the pricing of products and services to be the most important skill small business owners need to operate a business. Additionally, communication and people skills were also found to rank highly. The one skill area where almost 40 % of small business owners indicated that they needed help was with working capital management (Romero & Gray, 2002).

A more recent study into financial literacy for small business managers in the United Kingdom addressed how managers perceived their own confidence in understanding financial statements including cash flow statements (Brown et al. 2006) during the first year of operating their business. This quantitative study found that, while the small business owners were aware of their own lack of financial literacy, they did not

necessarily see this deficiency as important in running their business (Brown et al., 2006). This finding enabled Brown et al. (2006, p. 188) to argue that small business owners do not pay enough attention to the 'use and presentation of financial numbers'. Drawing on Schagen and Lines (1996), Brown et al. (2006, p. 188) concluded that 'It would seem that these owner-managers, while they might have the ability to read and understand fundamental financial statements, do not have the ability to make informed judgements and to take effective decisions regarding the use and management of money'.

### **The New Zealand position**

New Zealand has a vibrant small business sector. Sixty nine per cent of businesses are sole proprietors, while 90% of businesses employ fewer than five people (Statistics New Zealand 2011). New Zealand's Ministry of Economic Development classifies businesses as small and medium-sized enterprises (SMEs) when they employ fewer than 20 people. Small and medium-sized enterprises make up 97% of New Zealand enterprises, accounting for 31% of employment, and 40% of value added output (Ministry of Economic Development 2011). Small and medium-sized enterprises, therefore, play a significant role in the economy. 'Almost half of SMEs are less than six years old, with very few over 20 years old' (Ministry of Economic Development 2011).

Small businesses are an important part of New Zealand society and make a significant contribution to the economy. However, some financial skills and knowledge are considered necessary for long-term business survival (Newton 2001). This point is important as individuals who derive their income from a small business rely on its generating sufficient income to take care of both their day to day living expenses in addition to providing a long-term savings vehicle for their retirement.

While undertaking research on firm growth and development in relation to New Zealand small and medium-sized enterprises, Massey et al. (2006) found that many business owners see themselves and their businesses as one and the same. There is no distinction between their business and personal lives. Examples of personal crises or significant events were provided to explain many of the business decisions made. This interrelationship between the business and personal life of the owner-manager (Massey et al., 2006; Lamm, 2002; Walker & Brown, 2004) means that the ultimate commercial success of the enterprise depends in a large part on the financial knowledge, skills, and ability of the owner.

### **Financial literacy education and secondary school accounting**

New Zealand's Commission for Financial Literacy and Retirement Income (CFLRI)'s vision is for the country to have 'Financially sorted Kiwis'. Its first goal is to ensure 'New Zealanders are financially well-educated and can make informed financial decisions throughout their lives' (Commission for Financial Literacy and Retirement Income 2012, p. 6). The Commission's free independent website – [sorted.org.nz](http://sorted.org.nz) – and accompanying resources are aimed at helping New Zealanders to understand money matters and manage their personal finances throughout life.

While the importance of financial literacy is acknowledged, financial education is not mandated in any of the eight essential learning areas of the New Zealand Curriculum 2007 (Ministry of Education, 2007). In a recent news article, Meadows (2011) states:

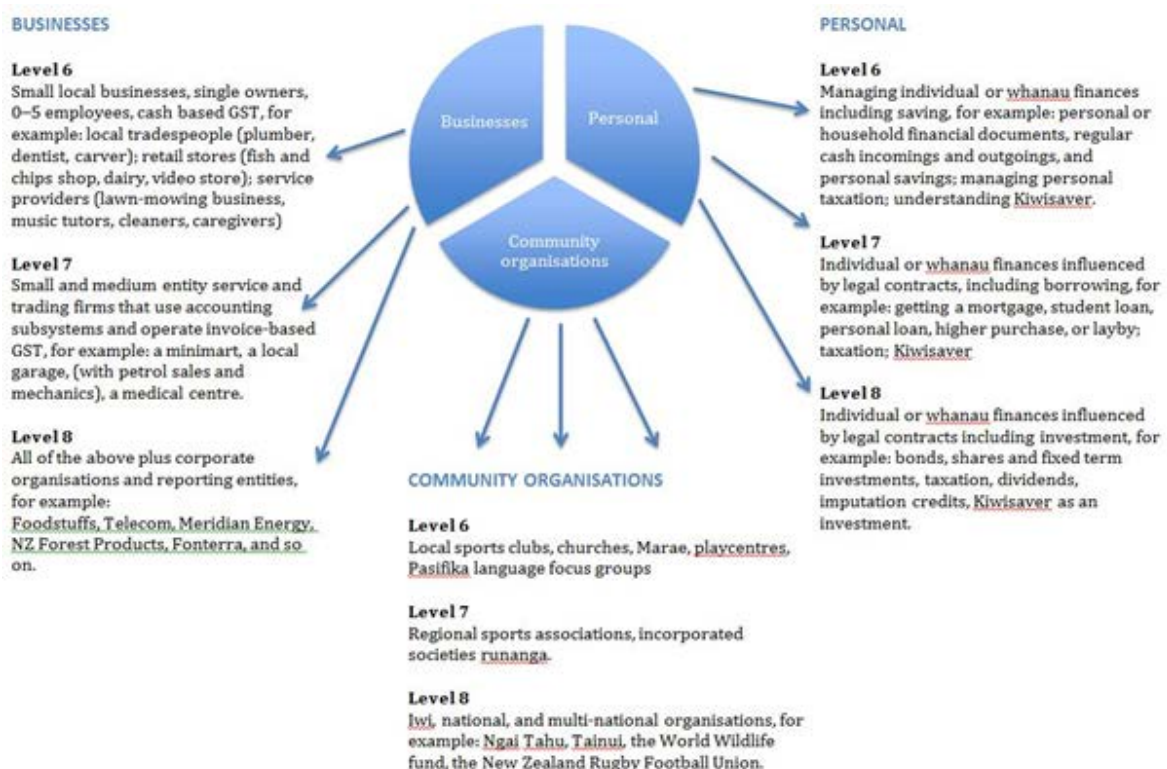
*Now more than ever, school kids could probably stand to benefit from a healthy dose of financial education....Financial literacy is the most essential area (of learning) after numeracy and literacy she (Young Enterprise Trust (YET) chief executive Terry Shubkin) says. 'The next biggest skillset that crosses everything - regardless of what you do in life - is financial literacy, because everyone needs to learn how to manage their money'.*

Financial capability is mentioned in the New Zealand Curriculum. However, according to Meadows (2011), just not where it counts! It is stated as a desirable outcome resulting from developing links between learning areas. Units of work or broad programmes can be designed to 'develop students' financial capability, positioning them to make well-informed financial decisions throughout their lives' (Ministry of Education, 2007, p. 39).

Accounting is not the same as financial literacy. As a subject, however, accounting does expose New Zealand secondary school students to some limited financial literacy skills and knowledge that would be useful in running a small business. Figure 1 details the knowledge and skills promoted as representing the contexts for learning accounting (Ministry of Education, 2011). The level 6<sup>2</sup> business context is of particular relevance to this study as most of the businesses studied were registered for GST using cash based accounting and had few employees. As the research by Massey et al. (2006) has highlighted, New Zealand business owners see themselves and their businesses as one and the same. Consequently, the personal learning as well as the processing of transactions using accounting software and credit sales management shown in level 7 are also important to a number of the small business owners.

**Figure 1:**

*Framework for progression in secondary school accounting – contexts for learning*



**Source:** Ministry of Education (2011). <http://seniorsecondary.tki.org.nz/Social-sciences/Accounting/Learning-programme-design/Planning-learning-programmes>

<sup>2</sup> Level 6 equated to year 11 at school. In New Zealand year 11 students generally sit Level 1 National Certificate for Educational Achievement (NCEA) exams. Level 7 equates to year 12 (NCEA Level 2) and Level 8 to year 13 (NCEA Level 3).

Bringing together the outputs of pedagogic research in such a way as to strengthen what we see as the core elements of student engagement has three primary advantages. Firstly it helps to focus often scarce resources into areas with demonstrable leverage on the student experience; secondly, the impact of such practical research is often immediate with student feedback providing rapid indications on the value of the interventions and possibilities for applications across subject areas; thirdly, it identifies directions for future research with an associated knowledge base of evidence and impact. These are often key in seeking resources for further research either internally from an institution or externally.

## Method

This section reviews the research method used to gather data from small business owners. It begins by explaining the research method employed and then moves to a discussion of the method used to find and select small business owners to interview. The methods used for collection and analysis of data are then explained.

To achieve the two research objectives, semi-structured interviews were used to collect the data. This method was selected as it allows for the small business owners' voices to be heard (Ekanem 2010). The interviewer does not prejudge the financial skills needed to operate the interviewees' businesses successfully, nor does he or she attempt to identify those skills for the participants. The focus of the research was on the 'meaning that the participants hold' about the financial skills that are important to them rather than 'the meaning that the researcher brings to the research' (Creswell, 2009, p. 175). As a result, the small business owners were not presented with a list of skills and knowledge to select from, as in a survey instrument or questionnaire. Rather they were able to identify, from their own perspectives, the financial skills that they saw as being important to the success of their businesses. Additionally, this form of research enables rich data to be obtained, a richness that it is not possible to achieve in a quantitative study or questionnaire-based study. Demographic data about the small business owners was also collected at the interviews.

When undertaking small business research, the traditional way to select interviewees is to use local business associations, business networks, commercial or nation-wide databases (McGregor & Tweed, 2002; Walker & Brown, 2004), members of a business training programme (Brown, et al. 2006), businesses within specific industry sector(s) (Ekanem, 2010; Rogoff et al., 2004), and local telephone directories (Ball & Shank, 1995). Snowball sampling, whereby interviewees are asked to identify other potential interviewees, has also been used (Samujh, 2011). Each method of finding interviewees has its own limitations, particularly the time needed to identify and find willing participants.

For this exploratory research study, it was initially decided to use a combination of a social networking website (SNS) page on Facebook coupled with snowball sampling to invite small business owners to participate in the research. In a small country such as New Zealand, it was thought that using a social networking website could provide potential advantages. Given that using local business associations or telephone directories limits participants to a particular geographical area, using a social network site would enable willing participants from throughout the country to make direct contact with the researchers. This method of soliciting research participants has not been used in accounting research nor has it been widely used in any other social science research. Exceptions include Brickman-Bhutta (2009) who used Facebook to successfully find baptised Catholics to interview for her research, while Baltar and Brunet (2012) used Facebook to identify Argentinean entrepreneurs living in Spain.

A Facebook page was developed to promote the research. A number of 'Facebook friends' were asked to promote the page with the intention of attracting potential interviewees. This strategy was not particularly successful possibly because the Facebook page did not reach as wide an audience of business owners as hoped. While more than half of New Zealanders have a (personal) Facebook page, and half of those check it daily (Wade, 2011), only 32% of businesses have a website (Keown, 2012). During the period of the study, however, the Facebook page continued to be used as a reference point and potential interviewees were provided with a link to it.

Initially, a sufficient number of interviews is needed to ensure that common themes relating to financial skills emerge from the data. The final number of interviews can then be determined when saturation is reached (Walker & Brown, 2004). Based on the criteria developed by DiCicco-Bloom and Crabtree (2006), saturation occurs when no new financial skills are identified by the interviewees. The experience of Walker and Brown (2004) and Samujh (2011) suggests that saturation is reached at approximately 10 interviews. In this study 18 small business owners from 17 small businesses were interviewed. At this stage there was sufficient evidence of recurring themes to render further interviews unnecessary.

Interviews were conducted face-to-face, or, where this approach was not possible due to the distances involved, by using Skype's Voice over Internet Protocol (VOiP). Video option and telephone interviews were also used (Hay-Gibson, 2009). The interviews were semi-structured with four key questions directing the conversation.

While prior research (see, for example, Huck & McEwen, 1991; Ball & Shank, 1995; Romero & Gray, 2002; Brown et al., 2006) used survey instruments or questionnaires that detailed the financial skills the researchers consider necessary to run a small business, this study set out to identify the financial skills the interviewees themselves considered important. This approach gave rise to the first question:

- What are the financial skills you use regularly in your business?

Given that little if any prior research has focused on whether studying accounting at secondary school level assists small business owners who do not go on to study the subject at the tertiary level, the researchers' detailed knowledge of secondary school accounting was used to formulate the questions that followed:

- Where did you learn these financial skills?
- What, if anything, did you learn at [secondary] school that has helped you with the financial side of your business?
- What would you like to have learned at [secondary] school?

The questions were 'flexible enough to explore emerging paths during the interview' (Bédard & Gendron, 2004, p. 197). That is, the order in which the questions were asked was flexible, while at the same time permitting follow-up questions to be raised during the interview. The relaxed, semi-structured nature of the interviews allowed rich data to be gained (Bédard & Gendron, 2004) as interviewees were assured that there were no right answers. Consistent with the ethics protocol in place for this study, the interviewees were informed that they did not need to answer any question they were uncomfortable with. Additionally, if they did not have an answer to a particular question, the interview moved on to the next question or the question was rephrased to make more sense in the context of the interviewee's particular business. The interviewees were happy to have anything they said used to advance the study. As Interviewee 1 said, 'small business owners are passionate about their businesses and will always be happy to talk about them with someone who takes an interest'. The interviews which ranged in length from 15 minutes to 45 minutes were taped and transcribed. Interviewees who reviewed the transcripts did not make any changes to them.



## Analysing the data

The financial skills identified by each interviewee were coded by theme within each interview and then by common themes across interviews (Fossey et al. 2002). While some of the emerging themes were identified at the time the interviews were undertaken and transcribed, most of the actual analysis was undertaken after all the interviews had been completed. Highlighting themes once the interviews are complete enables 'meanings, patterns or connections among data' to be developed (Fossey et al., 2002, p. 729).

In line with Fossey et al. (2002) and Rowlands (2005), the researcher's thought, reflection and intuition provided the initial concepts and categories for coding the financial skills identified by the interviewees in their responses to key question one. As a member of the research team had 26 years' teaching experience, that individual's knowledge was used to link the themes to learning areas in the senior secondary school curriculum to key question three. Common themes in key questions two and four emerged directly from the interviewee responses.

The interviews were transcribed shortly after the interview to allow the coding to reflect the interviewees' responses during the interviews. This swift transcription was considered important as a means to ensure that the participants' meaning was reflected in the newly coded interview data. Thus, careful identification and definition of categories and themes ensured reliability of the data (Creswell, 2009).

## Results

This section details the results of the study. After the demographics of the interview population have been described, the four key questions that directed the conversation are used to frame the findings.

### *Demographics*

A diverse group of small business owners were included covering retail, manufacturing, building, photography, website development, tourism, research, and home-service businesses. The businesses were located in different parts of the North Island including Hamilton (9), Bay of Islands (3), Auckland (2), Wellington (2), and Tauranga (1). Twelve of the interviewees were male and five female. Table 1 provides the demographics of the interviewees.

**Table 1:**  
Interviewee demographics

Age of interviewee	21-30 years	31-40 years	41-50 years	50+ years
Number of interviewees	4	7	3	4
Age of small business	less than 1 year	1-5 years	6-10 years	10+ years
Number of interviewees	1	5	8	3
Highest education qualification	Secondary school qualification	Trade qualification	University degree	Post-graduate study
Number of interviewees	3	5	8	2

*Key question 1: What are the financial skills you use regularly in your business?*

A number of common themes were identified from the responses to the first key question 'What are the financial skills you use regularly in your business?' The themes identified from the interview transcripts relate to pricing, receiving income (cash), managing debtors and credit sales, managing expenses and payments, and maintaining accounting records.

**Pricing**

All of the small business owners identified pricing their product or service as an important financial skill and as something they needed to understand and communicate to their customers. Each of the business owners stated the importance of understanding their market and being able to determine the right price for products or services. The skills interviewees highlighted included: the importance of understanding pricing and the market; the need to price to the market; being aware of what the price should be when providing quotes; ensuring price would cover costs and make a profit; being able to communicate the price in a way that was acceptable to customers; and, pricing creative endeavours.

The importance of being aware of all costs and knowledge of profit margins was considered to be an important part of pricing. As Interviewee 12 explained:

*When I am doing a quote I have an idea of the approximate value that it should be, then I go through and work out all the labour and materials and if it isn't close I look at what I might have missed – if you put in a quote that is way off you could end up losing \$20,000 on a contract. (Interview 12)*

This point was reinforced by Interviewee 8 whose production process produced a reasonable amount of wastage and who stated:

*There is a reasonable amount of wastage. I use that to make up bargain products which I can sell ... and that works really well for the business. I can make money and customers like it as they can come in and get a bargain. (Interview 8)*

Interviewees whose businesses involved selling creative outputs highlighted the difficulty in pricing creativity. As Interviewee 3 explained:

*How do you price a thought? We had to think about the difference between selling a thing like a book or a toy to a space where we would sell a thought. We had to price something you couldn't touch; something in the abstract so it was difficult to start with. (Interview 4)*

Although interviewees believed that customer service and satisfaction were important, ultimately customers had to accept the price offered to them or take their custom elsewhere. The interviewees believed it was important not to compromise quality for price.

**Receiving income (cash)**

The maintenance of records of income received was important to small business owners. As most of the small businesses received receipts from customers electronically, the bank statement was an important document to identify customers who had paid (Interview 15). For retail business, the information from the cash register was transferred to the accounting records used for recording transactions. Different methods of summarising the cash register information were evident. Each of the small business owners had a system that worked for them. Some preferred to keep it simple while others used Excel spreadsheets rather than any specific accounting software.

### **Managing debtors and credit sales**

All interviewees who had any form of credit sales or projects which required on-going payments explained how managing debtors was an important financial skill to maintain cash flow. One interviewee explained the process as follows:

*Accounts receivable management is important – making sure we get money in on time and in an efficient fashion. You should know some KPIs (key performance indicators) about what is sensible and look at your cash conversion cycle to start with, both in terms of having the cash so you can do business and also in terms of risk management. Make sure you get deposits, that you have signed (by the customer) quotes, get the deposit paid first, and keeping up to date with payments the customers are supposed to make. Then being familiar with a process for follow up if customers don't pay on time. (Interview 9)*

Being able to respond to changes in the way projects and debtors are managed were also important skills. Both Interviewee 10 and Interviewee 12 highlighted how they had changed their invoicing system in response to the economic climate, requiring more frequent payments to be made than previously. Interviewee 12 explained the rationale as follows:

*In the past on long projects we did more monthly bills or even longer with progress payments: it was every 3 months which was a long time before you got paid. Mostly these days with the economic climate I try to bill fortnightly which works well with the clients because they can keep track of how their spending is going. And we keep the money coming in so it's probably a bit more work for the office girl to get the invoices out each fortnight and the boys have to get their hours in each fortnight. It's safer for me as all I can lose is 2 weeks' labour and materials which is a lot less than 3 months. (Interview 12)*

Establishing a system that worked for the business was considered important when managing debtors. While one small business owner's system might not always be what others would do, the interviewees expressed the opinion that they needed to do what worked for them personally and what they felt comfortable with. As Interviewee 13 explained:

*People who have agreed pay a deposit regardless of which package they have chosen, then another amount before the (wedding) day and I turn up. That is unusual, most (wedding photographers) ask for everything up front. I don't have a good feeling about that – I wouldn't like to have to do that myself so I don't feel I can ask others to do it. It is probably bad business practice. One time in every 3 years or so I get someone who backfires on me for various reasons, but I would still rather do it that way and live with that (the bad debt). (Interview 13)*

### **Managing expenses, asset purchases and drawings**

Interviewees highlighted the importance of the skills necessary to manage outgoings and control expenses. These included being able to live within one's means (Interviewee 6), reinvesting in the business (Interviewee 1) and savings for tax expenses and machinery upgrades (Interviewee 8). As owners, the interviewees recognised that it was their money on the line, their money at risk, and their money that had to pay to employees and suppliers before they paid themselves.

Recognising how to control overhead expenses was also an important consideration. Interviewee 2 explained, for example, that it could be necessary to terminate a lease and look for cheaper premises in order to save and rebuild a business. Having the skills necessary to understand where and how best to spend the business dollars was also considered important. As Interviewee 11 eloquently explained:

*Being in tourism, the real thing that was important was marketing. We needed to be careful where we spent our marketing dollars. Marketing brings numbers and that brings dollars. If you don't overdraw from the business, the dollars will work out. Advertising was our biggest cost and being able to advertise in places where it generated income. (Interview 11)*

### **Employing people**

The business owners who needed to factor employee costs into their charges were very conscious of this need. They expressed real concerns that the outgoings for wages would be recovered by the extra income earned from employing staff. Hours worked, particularly by part-time employees, were seen as a significant issue (Interviews 8, 15, and 16).

### **All things tax**

With one exception where the business' income fell under the threshold of \$60,000 to be registered for Goods and Services Tax (GST), most of the interviewees found accounting for GST to be relatively straightforward. The smallest businesses used their bank statement to determine their GST obligation on a two- or six-monthly basis. Other businesses relied on their accounting software to calculate and output GST returns.

Paying wages and associated Pay as You Earn (PAYE), KiwiSaver<sup>3</sup> and other deductions caused problems for those interviewees who did not use a commercial software program. Ensuring that they had sufficient funds set aside to pay GST, provisional tax, and other taxes was highlighted by a number of interviewees as being key to avoiding cash flow problems. To overcome this issue, a number of small businesses operated a separate account for tax so the money was available when required.

The difficulties faced by small business owners when trying to navigate taxation issues were summarised by Interviewee 11 as follows:

*Our accountant didn't help us at all. For many years we were paying too much in ACC (Accident Compensation) premiums because the accountant used the wrong code. I found that out and afterwards had to be vigilant and make sure they used the right code. They also didn't teach us planning for provisional tax which you have to allow for and that's another mortgage because you have to pay that in advance – we had to learn all that ourselves. They (accountants) don't tell you that not all the money you bank is yours. I figured that out so I made a separate account and put money in for GST and tax that you just build up over 6 months so you have a working account and a GST account. Otherwise you have a false sense of how much money you've got.*

### **Maintaining accounting records**

Maintaining some form of accounting records was highlighted by interviewees as being an important skill. These records could be as simple as using a manual system based on their bank statements (Interviewee 11), or making use of a commercial software program or a spreadsheet. Those that utilised particular commercial software programs did so because they were familiar with them (Interview 2), and they complied with necessary legislation, even though they did not necessarily understand the program (Interview 8). A number of interviewees also used a spreadsheet program to record accounting transactions, or in addition to their software program. Interviewee 17 commented 'I use Excel (for all my accounting records) because it's very basic and I learned it at secondary school so I have stuck with it'.

<sup>3</sup> KiwiSaver is a voluntary, work-based savings initiative (<http://www.kiwisaver.govt.nz/>).

Interviewees who used spreadsheets all had some prior experience with them, usually in a different context like engineering or at secondary school. This experience meant they were familiar with entering formulae and creating interactive spreadsheets that provided them with the ability to try different scenarios and to compare budgets with actual results.

*Key question 2: Where did you learn these financial skills?*

Three main themes were highlighted in response to the key question, 'Where did you learn these financial skills?' Interviewees identified being in business, family or friends, and relying on others including experts as the source of their knowledge.

### **By being in business**

When asked where they had learned the financial skills they had identified as using in their small business, almost all the interviewees said they gained their financial skills by being in business. A number simply said 'it's common sense, and by keeping it simple' (Interview 1) and 'it's easy' (Interview 15). The benefits of learning by being in business were summarised by Interviewee 3 as follows:

*I have learned heaps since I started my business particularly management such as time management and how to manage money, where to spend it. Also looking after customers is really important. (Interview 3)*

### **From family and friends**

A number of interviewees considered family and friends to be a valuable source of advice and assistance when it came to the financial side of their business. This reliance on family and friends stemmed in part from a lack of confidence about business finances on the part of the small business owners. The following assessment by Interviewee 13 is indicative of a number of views provided.

*(Financial skills) are not what I see as my strong suit. I rely on other people a lot. What I see is the creative business side and then there is the financials and they are really the bottom of the pile in terms of what I would spend my time on. My husband does all the financial stuff like comparing this month with the same month last year and seeing if we are doing better or worse. (Interview 13)*

### **Relying on others including accountants and staff**

A number of interviewees, however, expressed the view that they did not need to know all about the finance side of their business to run their business successfully. As one interviewee stated, when he commenced in business his 'core level of financial literacy was near zero' (Interviewee 4). Similar sentiments were expressed by Interviewees 10 and 12. Interviewee 4 commented that because of his lack of financial literacy skills, he had to prioritise spending on the services of an accountant for advice so as 'not to have any surprises' (Interviewee 4). Other small business owners believed that they needed to prioritise the running of the business and leave the financial side to accountants or staff, especially in circumstances where the financial side is beyond them (Interviewees 8, 10, and 12).

*Key question 3: What, if anything, did you learn at [secondary] school that has helped you with the financial side of your business?*

The common themes identified in the responses to the key question 'What, if anything, did you learn at [secondary] school that has helped you with the financial side of your business?' were English, mathematics, or involvement in the Young Enterprise Scheme programme or work experience. While accounting was a theme, the responses here were mixed. However, although interviewees had learnt things at secondary school, these were often expressed as providing them with, in the Kiwi vernacular, a 'have a go' attitude, rather than offering specific help.

## English

English and communication skills were identified by interviewees as the most important skill they learnt at secondary school (Interviewees 3, 10, and 13). Interviewee 10, in particular, focused on the importance of communication in the business environment as follows:

*English, because in (my) business there is quite a lot of emailing to and from to customers, it's just the power of communication really if you have that; knowledge is power; if you know how to write a good letter, chances of getting the job are so much better. (Interview 10)*

While acknowledging the importance of English, Interviewee 13 believed that secondary schools could have focused on 'persuasive speaking in English' and 'selling ideas, selling your historical perspective'.

## Mathematics

Although there were mixed views on the level of mathematics that should be taught at secondary schools, the general consensus was that the subject provided skills that were helpful in a number of ways. As Interviewee 5 explained:

*At school a basic understanding of mathematics is a good platform to build from. Establishing a platform at school, but getting out there and doing it in the real world is important. (Interview 5)*

## Young Enterprise Scheme programme or work experience

Interviewees who participated in the Young Enterprise Scheme or a work experience programme while at secondary school found it useful. They could see a direct link from what they had experienced to their business even though the Young Enterprise Scheme programme operates on a much smaller scale (Interviewees 1 and 7). Interviewee 1 provided the following endorsement of the Young Enterprise Scheme (YES) programme:

*At school I went through the Young Enterprise Scheme programme – we started a small business and ran it for 6 months. We had quite a few speakers like Stephan Tindall from The Warehouse. It motivated you to want to start your own business – give it a go. It was exciting while doing it. Did learn the skills of profit and GST. Just basics – very small, small amounts of money. Taught you the building blocks – it was real money and real invoices going out. For me it is easier to learn by doing it, being a practical person – having to sort out issues. (Interview 1)*

For those interviewees who attended secondary school before the start of the Young Enterprise Scheme programme, a work experience programme where they worked at a local business and earned income was credited with providing valuable experience. As an example, Interviewee 12 explained that 'Learning that if you earn so much and they take some off for tax then that is your first experience that wage (income) is not all yours'.

## Accounting or not

Two of the interviewees had tried accounting at secondary school and given it up after 2 weeks because it simply did not work for them. It was too technical and not based in reality which meant they went off and did subjects that had meaning for them (Interviewees 13 and 15). Those who had actually studied accounting – two at secondary school and one taking a stage one university paper equivalent to secondary school accounting – did credit accounting for providing some of the skills they believed were necessary for running a small business. In particular, Interviewee 6 credited his secondary school teacher with teaching him the difference between good debt (debt used to purchase a taxi for his business) and bad debt (to purchase a fancy television). Interviewee 16 who had completed a university stage one accounting paper acknowledged that the skills learned there meant that 'we are not just relying

on going to see an accountant once or twice a year and having him tell us what is happening with everything. I feel quite in control so I found that valuable' (Interviewee 16).

Interviewee 9 who had studied accounting for 2 years at secondary school, and thus had the most experience of the subject, believed that secondary school accounting was deficient in a number of important respects. While the process of gaining information was useful, accounting concepts like materiality were somewhat 'arbitrary' if they were not placed in a 'real world' context. Additionally, Interviewee 9 believed that greater emphasis should have been placed on a company's accounting issues including profit allocation and shareholder current accounts. According to Interviewee 9, the following business literacy elements should be taught at secondary school.

*PAYE and salaries, doing a payments record book, processing a few weekly payments to employees using Inland Revenue Department online tax payment calculations – filling in an IR330 for a couple of fictitious employees, then doing a couple of manual wages journals – the ideas behind that like rates of tax, how KiwiSaver gets pulled out and put where. Use the real tax forms.*

*Key question 4: What would you like to have learned at [secondary] school?*

The final key question: 'What would you like to have learned at [secondary] school?' provided an interesting contrast between the responses of interviewees who had left secondary school in the last 5-15 years and those who had left before that and who now had secondary school age children of their own. Two distinct themes were identified in the data: what children should be taught, and making connections with the real world.

### **What children should be taught**

Those interviewees who were parents of secondary school age children were passionate about what they thought their children should be learning. These parents were particularly focused on the financial literacy skills they believed their children should possess. As Interviewee 11 explained:

*It should be compulsory at school that they learn about money – all aspects of money – it should be compulsory. They should learn about budgeting. They need to ... make it interesting and real...*

A similar sentiment was expressed by Interviewee 13:

*My daughter is doing enterprise studies – I want her to learn all the skills about setting up a business like establishing a market need – they are doing a project making wheat bags and I am saying why would I buy your wheat bags – everyone's got wheat bags so why would I buy yours, other than that I am your mother. Get them to have that conversation in their group.*

### **Making connections with the real world**

All interviewees expressed the view that learning at secondary school should be real or at least practical. In providing an example of 'real world' situations that could be brought into the classroom, Interviewee 14 was also highlighting the relevance of financial literacy skills:

*... if you make a chair how much does the wood cost us and at the end how much does it actually cost. When making cakes, work out the stuff that comes into the kitchen and try and work out the cost; if you bring in flour, and it's so much a gram, how many cakes can you get out of it and what profit are you going to put on it? (Interview 14)*

A number of interviewees wished they had learnt the steps to take in moving from an idea to the realities of developing a business plan so as to establish the

feasibility of the business idea (Interviewees 2 and 4). In arguing that this knowledge fitted in well with accounting at secondary school level, Interviewee 7 rationalised the idea that business planning and accounting made a logical connection:

*... it is the story you tell that is the compelling part of the numbers. You can't just turn up with the spreadsheet. You need the story that introduces it and kind of makes it the 'why' and 'what' people are coming to you for, and why they will come to you and why they will come back. It is quite a picture to build a compelling business plan that is both compelling for yourself and to others and financially logical and something that is going to have the spreadsheets and documents that will also be helpful to operate your business.*

### **Discussion and conclusion**

In this study pricing, receiving income (cash), managing debtors and credit sales, managing expenses and payments, and maintaining accounting records were found to be the financial skills New Zealand small business owners use in their business. Although this is a qualitative study, the themes identified in response to the first key question that drove the ensuing conversation are broadly consistent with those in the extant literature. Consistent with Romero and Gray (2002), small business owners interviewed in this study highlighted the pricing of their product or service as an important financial skill they needed to possess. Closely associated with pricing was the ability to communicate with customers (Huck & McEwen, 1991; Brown et al., 2006).

The small business owners interviewed recognised the importance of liquidity management to ensure adequate cash flow. A major part of liquidity management is the management of accounts receivable. Small business owners need to manage their debtors themselves, as they do not have the capacity to employ credit managers in the way that larger businesses can (Ekanem, 2010). The comments from the interviewees about the importance of this function during the current economic climate is consistent with Ekanem's (2010) view that 'The efficient management of working capital is particularly important for small firms at a time of economic downturn such as the current 'credit crunch', which started in 2008' (p. 132).

The findings from the interviews identified a number of different financial skills common to the small business owners. Most of the interviewees had not studied accounting at secondary school and had learned the financial skills they used by being in business or from others including family, friends, and their accountants. Consistent with the findings of Brown et al. (2006), a number of interviewees (Interviewees 4, 5, 8, 9, 10, 11, and 14) directly or indirectly expressed the view that they did not fully understand the financial side of the business. For this reason, it was often left to others. As long as customers were happy, sales were being made, and there was sufficient cash in the bank to pay the bills, the Inland Revenue Department, and themselves an income, their business was deemed to be financially successful.

The three interviewees who had studied accounting at secondary school or university expressed the view that they had a reasonable understanding of the financial side of their business. They also believed this understanding gave them confidence that their businesses would continue to be financially successful in generating income for them. The Young Enterprise Scheme programme, where a real business was set up in a secondary school context, was also credited with helping the interviewees better appreciate the financial side of their business (Interviewees 1 and 7).

A number of the common financial skills interviewees identified as using can be linked to some aspects of the secondary school accounting curriculum. By the same token, there are some key financial skills used in small business that could potentially



enhance the relevance of the secondary school accounting curriculum so that it is better connected to the real world.

Electronic methods of receiving and paying cash are covered in the curriculum level 6 (NCEA level 1, year 11) programme; cash journals are prepared using a range of cash and electronic transactions, and bank reconciliation completed. Goods and Services Tax is also taught in conjunction with the receipt and payment of cash. However, the actual payment of the Goods and Services Tax liability is remarkably absent from the curriculum. Yet most interviewees discussed this area as being one of the financial skills they used and needed to understand. A further tax issue raised by the interviewees – the concept of having to provide for and pay provisional tax – is also missing from the secondary school curriculum. Likewise, PAYE and other wage-related taxes and deductions are not included in the secondary school curriculum in relation to small business accounting, yet these were identified as being areas interviewees struggled with.

The curriculum level 7 (NCEA level 2) programme includes the processing of transactions using commercial accounting software. Based on the results of this study, this is an area of the curriculum that may require some future thought. The current software program used by secondary schools has by default, rather than by design, led to the development of an accounting achievement standard at level 2 that is driven more by the application rather than an understanding of processing. Given that a number of interviewees considered that they did not understand the processing of their transactions, how this topic is taught may require further consideration. For example, the use of an Excel spreadsheet where students cannot just enter data but must also understand the calculations and debit and credit nature of the transactions they are required to process may be an appropriate starting point.

Interviewees who used Excel spreadsheets for their everyday accounting records and/or for cash flow forecasting had all had some prior experience with the software program which meant they were comfortable using the program and found it to be a useful tool in their small businesses. Secondary school accounting could potentially give students the opportunity to learn to use Excel and understand how powerful it can be in providing useful information for future decision-making. For this change to occur, some thought would need to be given to extending the use of Excel in the curriculum.

All the interviewees who offered any form of credit sales or delayed payment for their services identified management of debtors as being a key financial skill they used in their business. However, the management of credit sales and debtors is only an optional component in the current accounting curriculum. Little emphasis is placed on this learning area other than adjustments for bad and doubtful debts and what an aged debtors report represents.

Another key financial skill identified by all the interviewees was pricing. Pricing is not considered at curriculum levels 6 or 7 and forms only a small component of the learning at curriculum level 8 where cost-volume-profit analysis is taught within an optional management accounting unit. As a result, even students who reach level 8 accounting may not learn this skill. In relation to this research, the value of consolidating this unit into level 8 would, however, be moot, given that none of the interviewees had studied accounting beyond curriculum level 7. It could be argued that pricing is a business studies curriculum issue; however, as all the interviewees actually identified pricing as a financial skill they thought was important, there would appear to be a place for it at levels 6 and 7 of the accounting curriculum.

Qualitative studies such as this one allow the voices of small business owners to be heard. As such they add a richness and texture to understanding small businesses and

the environment in which they operate. The objective of this study was to identify the financial skills small business owners believe they need to possess in order to be successful in business. A secondary objective was to identify what skills learned at secondary school contribute to their operation of their business. The aim here was to establish whether or not secondary school accounting could contribute to the learning of these skills. Because it was an exploratory study, a relatively small number (17) of semi-structured interviews with small business owners were undertaken to establish the financial skills they used, and where and how they learned them.

The financial skills interviewees used to help them ensure their businesses operated successfully were first explored in the interviews. Where and how the interviewees learned the identified financial skills were then explored. What they had learned, and what they believed would have been useful to learn at secondary school, in relation to those financial skills was then explored and discussed. This conversation aimed to establish whether or not a study of accounting, or any other secondary school subjects, had assisted, or could potentially assist, future small business owners with the financial side of their business.

The financial skills identified by the small business owners were common across the diverse group of small businesses covered by this study. These included: pricing; receiving income, including accounting for GST; dealing with debtors where credit sales or time payment was offered; managing expenses, including wages and taxation payments; and, using accounting software to record transactions and account for taxes.

In general, the interviewees had acquired these financial skills in the following ways: by being in business; from others, notably friends and family; and/or, by selecting an accounting software package to record and report their financial transactions. Those who made use of accounting software packages agreed that these allowed them to get on with the aspects of their businesses they considered to be most important. The use of these packages provided interviewees with the confidence that their financial transactions were being recorded and reported correctly for accounting and taxation purposes, even though they might not understand the process.

When asked what they had learned at secondary school which helped with the financial side of their business, almost all the interviewees identified the importance of English and communication skills. If they did not communicate well with customers, they were unlikely to generate the sales required to produce the essential cash flow that was needed for their businesses to continue. Mathematics, notably basic numeracy skills, was credited with being the foundation of most of the financial skills used. The use of Excel spreadsheets by the interviewees who had some prior experience in using Excel was also rated highly as enabling them to record their transactions and/or prepare cash flow forecasts. For these interviewees, being able to use interactive spreadsheets to prepare cash flow forecasts was considered to be an essential tool relating to the future of their businesses.

The majority of the interviewees did not believe they had a full understanding of their small business finances and financial statements. Most notably, only those who had studied accounting at secondary school and those who had undertaken a Young Enterprise Scheme programme believed they had a good understanding of the financial side of their business. The study of accounting gave interviewees confidence that the financial side of their business was being operated successfully for them.

All the interviewees agreed secondary school learning needs to be real and relevant if students are going to engage with it or learn the skills necessary to run a small business in the New Zealand environment. Accounting as a secondary school subject is the one subject area where this knowledge can be taught. However, if secondary

school accounting is to remain relevant, consideration needs to be given to how the subject can be restructured to better reflect realistic scenarios. The two interviewees who had undertaken a Young Enterprise Scheme programme support this view that learning needs to reflect the real world experiences as this understanding contributed significantly to the confidence, knowledge, and skills they brought to their own small businesses.

Secondary school accounting, particularly at curriculum levels 6 and 7 (NCEA levels 1 and 2), does offer some of the financial skills the small business owners identified as being important. These topics include processing Goods and Services Tax inclusive cash and electronic transactions, and completing a bank reconciliation. However, the current secondary school accounting curriculum does not extend this area to encompass using the bank statement or other transaction data to prepare a GST return, a finding which suggests a gap in the accounting curriculum, as all the small business owners completed their own GST return using either their bank statement or their accounting software. Management of debtors, rated as an important financial skill, is included in the level 7 curriculum. The common financial skill the small business owners believed caused them the most difficulty, i.e. paying wages related taxes and deductions and making provision for provisional tax payments is remarkably absent from the secondary school accounting curriculum. Also absent at levels 6 and 7 of the accounting curriculum – the only levels studied by any of the interviewees – is the process of costing a concept, product or service and establishing a price that will both meet the market and provide the small business owner with an on-going income. As the interviewees all discussed pricing as important, it would appear that accounting at all levels would better reflect the real world if costing and pricing were included in the curriculum. Surprisingly, only four interviewees mentioned budgeting. Two interviewees highlighted this as a neglected part of their business as it was a skill that they were unfamiliar with (Interviewees 10 and 14). Interviewees 4 and 6, however, believed budgeting played an important part in their business.

As it is exploratory in nature, this study is limited by the small number of small business owners interviewed. As a result, the findings may not be representative of the whole population of New Zealand small businesses' owners and hence any generalisations that can be made from it are also limited. The study does, nevertheless, suggest that further research into the role secondary school accounting could play in teaching small business owners financial skills is called for. A larger sample of small business owners, particularly a more balanced sample containing those who had some experience of secondary school accounting and those who had none, would provide more insight into how useful secondary school accounting is in teaching relevant financial skills. Based on the interview findings, a survey questionnaire could be developed that would be able to reach an even wider audience of small business owners. Such a survey would assist in confirming or rejecting the findings of this exploratory study. The opinions of other interest groups such as small business accountants could also be investigated. The research could also be extended to include small charities, sports clubs, and other community organisations where financial skills are required. Additionally, it would be instructive if future research could identify whether those small business owners whose businesses were unsuccessful had different levels of financial literacy to those whose businesses succeed. Finally, these studies could then be used to inform any review of the secondary school accounting curriculum.

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