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Joël **Branson**,
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EDITORIAAL

Beste lezer,

U hebt het doorstartnummer van het tijdschrift Accountancy & Bedrijfskunde in handen. Na het afhaken van de vorige uitgeverij heeft die Keure de uitgave van het tijdschrift overgenomen. Dit resulteert in enkele aanpassingen: de meest zichtbare vernieuwing is dit nieuwe jasje dat frisser oogt en vlotter leest. De papieren editie verschijnt vanaf nu elk kwartaal, maar we werken aan een continue *online presence* met een website en een Twitter-account. Hierdoor krijgt u in real-time een overzicht van wat reilt en zeilt in het domein van Accountancy & Bedrijfskunde. We kunnen hiermee ook inspelen op uw reacties als lezer via mail of #A&B.

Als redactie waarderen we de input die u ons bezorgt. Die redactieraad is ook uitgebreid zodat we de verschillende stromingen en achtergronden nog beter kunnen vertegenwoordigen. De opzet van het tijdschrift is echter niet veranderd. De redactie heeft nog steeds de ambitie om kwalitatieve bijdrages te publiceren met betrekking tot accountancy, bedrijfskunde en verwante domeinen. Daarbij mikken we nog steeds op een doelgroep van academici en professionelen. De bijdragen zijn geschreven in het Nederlands of in het Engels. We trachten hiermee de internationalisering te weerspiegelen en nieuwe trends in het veld te omarmen.

Het tijdschrift is opgenomen in het gerenommeerde Vlaams Academisch Bibliografisch Bestand voor de Sociale en Humane Wetenschappen (VABB-SHW). Dit impliceert een peer review van de ingediende papers, en dus een hoge kwaliteit en een verhoogde leeswaardigheid van de geselecteerde artikelen.

Ik wens u een aangename en leerrijke lectuur van de eerste en alle volgende edities van ons vernieuwde tijdschrift.

Voluntary Disclosure of Sales and the Extent of Trade Credit in Small Young Private Companies

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ABSTRACT

Heel wat kleine niet-beursgenoteerde ondernemingen ondervinden moeilijkheden bij het verkrijgen van financiering. Berger & Udell (2002 en 2006) geven aan dat het gebrek aan publiek beschikbare informatie een van de belangrijkste oorzaken is van die financieringsproblemen. Naast het traditionele bancair krediet, blijkt ook leverancierskrediet een belangrijke bron van kortetermijnfinanciering te zijn voor kleine niet-beursgenoteerde ondernemingen (Berger en Udell, 2006; Psillaki en Daskalakis, 2009), vooral indien ze problemen ondervinden bij het verkrijgen van bankfinanciering. Dat is in het bijzonder het geval voor jonge ondernemingen. Zij hebben immers nog geen of onvoldoende reputatie of vertrouwensrelaties kunnen opbouwen. Leverancierskrediet is om die reden een niet te onderschatten financieringsbron voor kleine jonge ondernemingen (Huygebaert, 2006). In tegenstelling tot banken, die vaak bijkomende vertrouwelijke informatie van de onderneming kunnen eisen, zijn leveranciers over het algemeen meer aangewezen op informatie die publiekelijk beschikbaar is. Daardoor zal de informatieasymmetrie die bestaat tussen de onderneming en de leverancier meer uitgesproken zijn dan de informatieasymmetrie die bestaat tussen de onderneming en de bank. In deze studie onderzoeken we daarom het verband tussen meer financiële transparantie en het verkregen leverancierskrediet bij jonge kleine niet-beursgenoteerde ondernemingen. We maken daarvoor gebruik van een dataset met gegevens van meer dan 90.000 ondernemingen tijdens de periode 2010-2012. De resultaten geven aan dat een grotere hoeveelheid publiek beschikbare financiële informatie in de jaarrekening (onder andere omzet) significant positief gerelateerd zijn met het verkregen leverancierskrediet.

1. INTRODUCTION

According to Beck & Demircuc-Kunt (2006) access to finance is a major problem for small and young companies. One important reason for this is the poor availability and quality of financial information on small companies (Berger & Udell, 2002, 2006). Trade credit has been shown to be an important source of short-term finance for smaller companies (Hughes, 1997; Berger & Udell, 2006; Psillaki & Daskalakis, 2009), in particular for those companies that are credit rationed by financial institutions (e.g., Petersen & Rajan, 1997; Mateut *et al.*, 2006). Especially for young companies, which are typically informationally opaque with little repayment history or established relationships, trade credit may often be the best or only available source of external finance (e.g., Huygebaert, 2006).

In line with the traditional view that informational opacity restricts access to credit by financial institutions, it may also affect supplier trade credit (see e.g., Van den Bogaerd & Aerts, 2014). Prior literature posits that an increased level of disclosure can help to reduce information asymmetries and agency conflicts between managers and outside stakeholders (see e.g., Healy & Palepu, 2001; Verrecchia, 2001; Beyer *et al.*, 2010). While extant research on public companies reveals that increased financial disclosure benefits companies by lowering information asymmetries, thereby reducing their cost of capital (see e.g., Sengupta, 1998; Leuz & Verrecchia, 2000b; Verrecchia, 2001; Francis *et al.*, 2005; Francis *et al.*, 2008), very limited evidence exists on the consequences of increased financial disclosure for small private companies. Although prior research argues that the demand for financial

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information of small and private companies is lower compared to large and listed companies (Ball & Shivakumar, 2005), outside stakeholders still rely on financial statements for debt contracting and for the provision of trade credit (Collis *et al.*, 2004; Peek *et al.*, 2010; Arrunada, 2011). Consistent with this, empirical evidence shows that small companies are able to influence their access to external financial debt by increasing the amount of publicly available information (Van Caneghem & Van Campenhout, 2012). There is, however, a lack of evidence on whether increased financial disclosure is also positively related to the amount of trade credit obtained. Financial institutions possess the power to demand information privately from small companies, whereas trade creditors rely primarily on financial information that is publicly available for evaluating companies' creditworthiness (Arrunada, 2011; Kitching *et al.*, 2013). This is particularly relevant for young companies with no or only limited reputation and established relationships (Fisman & Love, 2003; Huyghebaert, 2006). Hence, trade creditors are expected to react stronger to an increase in publicly available financial information by small and young companies.

This paper investigates whether increased disclosure in the financial statements of small and young companies is positively associated with the amount of obtained trade credit.

For our empirical analysis, we exploit a large and detailed database with financial statements of Belgian small private companies from 2010 to 2012. More specifically, we use an unbalanced panel that contains 255,422 company-year observations of small private companies over three years.

Our results indicate that voluntary disclosure of financial information is positively associated with the obtained level of trade debt. More specifically, we observe a significant positive relationship between the amount of financial disclosure in the financial statements and the level of trade credit. Findings for our other company-specific characteristics of trade debt are consistent with prior research.

We contribute to the literature in several ways. First, it complements the literature on the economic benefits of voluntary disclosure by focusing on small private companies, whereas the majority of the previous studies relates to listed companies (see e.g., Diamond & Verrecchia, 1991; Sengupta, 1998; Francis *et al.*, 2005; Leuz & Verrecchia, 2000a; Francis *et al.*, 2008; Lardon and Deloof, 2013). However, small private companies play an essential role in the European economy. They account for more than 95 % of the total number of operating companies and for around two-thirds of jobs (European Commission). A second contribution relates to the SME financing literature, by focusing on trade credit as a source of short-term finance,

which is said to play a critical role in sustaining company growth (Du *et al.*, 2012). Given this, combined with the economic importance of SMEs, very little research exists regarding the effect of increased financial information on the access to trade credit. Consequently, our results are likely to be of interest to policymakers considering simplifying or even abolishing financial reporting requirements for small companies (Accounting Directive 2013/34/EU).

The remainder of this paper proceeds as follows. In the second section we present our theoretical arguments and develop our research question. Our sample and variable selection are described in the third section. We present and discuss results in the fourth section and conclude in the fifth section.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Voluntary Disclosure in Small Private Companies

Agency and signalling theory have been used extensively in empirical studies to explain the variations in companies' disclosure levels (see e.g., Cooke, 1989; Hossain *et al.*, 1995; Depoers, 2000; Gray *et al.*, 1995; Raffournier, 1995; Watson *et al.*, 2002; Birt *et al.*, 2006).

As explained by Jensen & Meckling (1976), conflicts of interest can arise from the separation of ownership and control. Since shareholders and managers have different objectives, it can be argued that the manager will not always act in the interest of the shareholder. This may lead to the need for some systems of incentives, such as performance-based contracts and bonus sharing plans, which result in agency costs. Given that agency costs reduce managers' compensation, they may be motivated to try and convince shareholders that they are acting optimally by providing voluntary information to reduce information asymmetries and agency costs. Consequently, the literature suggests that those companies that experience a high degree of agency and contracting costs are more likely to disclose information voluntarily.

An important characteristic of small private companies is their close ownership structure. Small and private companies are generally closely held and shareholders take a more active role in managing the company (Ball & Shivakumar, 2005). Unlike investors of large companies, owner-managers of small companies usually have direct access to management accounts. Therefore, the typical agency relationship that exists in large and listed companies is seldom the case in small privately owned companies, leading to a lower demand for public in-

formation (Burgstahler *et al.*, 2006). However, while close ownership may imply different types of agency problems to large and listed companies, it does not imply agency problems do not exist (Clatworthy & Peel, 2013). Even in the very smallest companies, agency conflicts can arise. For example, in the situation where a company has one or more (minority) shareholders who are no company directors and do not have access to internal financial information. Ceustermans & Breesch (2014) find that small private companies with more shareholders are indeed more likely to provide more financial information voluntarily.

Signalling theory states that companies will voluntarily provide information as a reaction to informational asymmetries in markets (e.g., Morris, 1987). The information asymmetry between a company and investors can produce a problem of adverse selection (Akerlof, 1970). Because some information is private, information asymmetries arise between the insiders, who have more information about the company's prospects and outside investors, who could potentially make better economic decisions if they were aware of the undisclosed information (Connelly *et al.*, 2011). As a result, investors may experience difficulties to evaluate the quality of the investment which may lead to a misallocation of capital (e.g., Andriessen, 2000; Bini *et al.*, 2011). Managers of higher quality companies might wish to distinguish themselves from lower quality companies through voluntary disclosures (Baiman & Verrecchia, 1996; Watson *et al.*, 2002; Álvarez *et al.*, 2008). Therefore the information disclosed can be regarded as a signal. Thus, signalling theory suggests that voluntary disclosure is one way for companies to distinguish themselves from others in terms of quality and performance.

While the most important users of financial information in large and listed companies are outside shareholders, small private companies have different stakeholders, such as banks, suppliers and customers, for whom financial information is also important (Collis & Jarvis, 2000; Marriott *et al.*, 2006; Arunada, 2011; Kitching *et al.*, 2011). According to Ang (1992), smaller companies generally have higher levels of asymmetric information compared to large companies because of the lack of publicly available and detailed accounting information. Voluntary disclosure of publicly available financial information may enhance the quality of the financial statements of small private companies. Hence, in this informationally opaque market, the signalling of higher quality information to external stakeholders is likely to be a significant factor in a company's decision to disclose voluntarily. Indeed, Collis (2010; 2012) and Collis *et al.* (2004) find that small UK companies file voluntary audited and full financial statements to maintain relationships with the bank and to send positive signals to lenders, suppliers

and customers that the business is well managed (even though they may receive information through private channels). Arunada (2011) and Kitching *et al.* (2013) conclude that the main benefit of greater financial disclosure is to reduce information asymmetry in credit transactions, which helps in assessing credit risk, especially in the aftermath of the financial crisis.

2.2. The Use of Trade Credit by Small Private Companies

Prior research has revealed both a 'transactions' motive and a 'financing' motive for the use of trade credit.

The transaction motive posits that trade credit may be useful in reducing the transaction costs of the sales' cycle (Ferris, 1981). Instead of paying bills every time goods are delivered, companies can group payments at the end of, for instance, each month and use trade credit to bridge the period between purchase and payment. Consequently, trade credit enables buyers to economise on the transaction costs associated with cash management. Most companies hold precautionary cash balances because the timing of deliveries is uncertain and it is costly for a company to convert liquid assets into cash (Foster, 1986; Elliehausen & Wolken, 1993; Petersen & Rajan, 1997; Van den Bogaerd & Aerts, 2014). Hence, trade credit facilitates the prediction of a company's cash flows, because it provides information on future cash needs. As a result, trade credit alleviates the need for holding higher volumes of precautionary cash reserves.

The financing motive postulates that companies use trade credit because credit from other sources, in particular from financial institutions, is limited (Schwartz, 1974; Elliehausen & Wolken, 1993; Petersen & Rajan, 1997). Because of the relatively high cost of trade payables, companies prefer institutional finance over trade finance (Myers & Majluf, 1984; Petersen & Rajan, 1997). In many cases, suppliers offer a cash discount to encourage early payment. The interest rate implicit in the cash discount is in general higher than the interest rate on short-term credit from financial institutions. Two-part credit terms are commonly used in financing business transactions. For example, if a supplier offers a 2 % discount for payment within 10 days and a net period ending on day 30 ('2/10 net 30'), this will result in an implicit interest rate of 43.9 percent (Ng *et al.*, 1999)¹. The financing theory explains why companies would still choose to use trade credit and incur the relatively high interest

¹ The implicit interest rate is computed as:

$$\text{implicit rate} = \left\{ \left(\frac{100}{100 - \text{discount \%}} \right)^{360 / (\text{days net} - \text{days discount})} - 1 \right\}$$

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costs. Due to asymmetric information problems, some companies may encounter difficulties with obtaining credit from financial institutions (Smith, 1987; Elliehausen & Wolken, 1993). Because small companies are more informationally opaque than large companies, they experience more severe problems in accessing finance (Berger & Udell, 1998, 2002, 2006). Moreover, small companies face higher transaction costs and risk premiums since obtaining information on the creditworthiness of small companies may be difficult or costly due to the inability of lenders to reduce costs by capturing economies of scale. If these transaction costs exceed the expected risk-adjusted returns, financial institutions may not provide funding (Beck & Demircuc-Kunt, 2006; Niemi & Sundgren, 2012). Consistent with the 'pecking order' theory, companies are then likely to use trade credit as a substitute for missing or expensive short-term credit from financial institutions.

On the other hand, Cheng & Pike (2003) and Elliehausen & Wolken (1993) point out that the transaction cost of trade credit is much lower than the cost of obtaining institutional credit because of its ready availability. More specifically, the cost of time and effort in arranging credit can make institutional credit more expensive than trade credit, especially for companies that need to borrow relatively small amounts or only occasionally.

Elliehausen & Wolken (1993) argue that the transaction motive is probably important for companies of all sizes, whereas the financing motive may be particularly important for small businesses, because they are more likely than large companies to be rationed by financial institutions.

Empirical studies generally confirm that trade credit is an important funding source for small companies, which are more likely to be financially constrained compared with their larger counterparts. Petersen & Rajan (1997) found that small US companies use more trade credit when institutional credit is unavailable. Similar results were found for small Belgian business start-ups (Huyghebaert, 2006). More recent evidence on Japanese SMEs by Ogawa *et al.* (2013) confirms the finding that small companies with little access to bank credit depend more on large suppliers for trade credit.

2.3. Development of Hypothesis

Whereas information asymmetries with regard to a company's credit risk drives credit rationing by financial institutions, it may also affect supplier trade credit (Steijvers *et al.*, 2010; J. Ang *et al.*, 2000; Van den Bogaerd & Aerts, 2014). In the case where information asymmetries are high, suppliers may face an increased risk that the company will not or cannot pay for

their goods or services. As a result, suppliers may refrain from offering trade credit.

This is very much the case for small and young companies, since they are more informationally opaque and less financially stable compared with large and established companies and as a consequence, are more often confronted with severe information asymmetries (Berger & Udell, 1998). This informational opacity prevents lenders in small companies from distinguishing between high-quality and low-quality companies.

Consistent with the view that more publicly available information reduces information asymmetries, prior literature predicts a positive relation between a company's dependence on external finance and its disclosure level (e.g., Diamond & Verrecchia, 1991; Welker, 1995). Empirical research linking voluntary disclosure with financing incentives and cost of capital effects has mainly been undertaken in the context of listed companies. For example, Sengupta (1998) documents that a policy of timely and detailed disclosures results in a decrease of the cost of debt for the company. Botosan (1997), Botosan & Plumlee (2002) and Hail (2002) provide evidence that an increased reporting of voluntary information in annual reports is associated with a lower cost of equity. In an international setting, Francis *et al.* (2005) also find that companies in industries with greater external financing needs have higher voluntary disclosure levels, and that an expanded disclosure policy for these companies leads to a lower cost of capital.

Gregory *et al.* (2005) was one of the first to test the effect of information availability on access to finance of small companies in the U.S., using survey data. However, they find no evidence that information availability is associated with access to long-term debt.

A more recent study by Van Caneghem & Van Campenhout (2012) found that private SMEs publishing more information in the financial statements benefit from a reduction in information asymmetries and as such, have easier access to institutional debt. Their results suggest that public information does convey a valuable signal to institutional lenders.

However, institutional lenders such as banks have the power to demand additional, private information. Suppliers, by contrast, are less likely to use private information channels to alleviate information asymmetries and are expected to rely more heavily on information that is publicly available for evaluating companies' creditworthiness (Arrunada, 2011).

An online questionnaire survey with 5,924 customers of the Spanish online credit information service revealed that almost

85 % of the small companies in the sample indicated that the financial statements were the most valuable source of information for evaluating the creditworthiness of other companies. Moreover, 61 % of the small companies in the sample indicated that they used this information to grant credit to new clients (Arrunada, 2011). A similar study on the use of financial information by small companies in Thailand shows that small companies mainly look at the payment history for evaluating the creditworthiness of business partners. Although the customers' financial statements were perceived less useful than the history of payments, almost 80 % of the respondents felt that it was still an important source for deciding whether to do business with another company (Ploybut, 2012).

Outside stakeholders of large and more established companies can examine the company's track record and its creditworthiness over time. A company's reputation can mitigate the problem of asymmetric information and improve its access to external sources of funding, such as trade credit and bank debt (Diamond, 1989; La Rocca *et al.*, 2011). However, young companies are typically very informationally opaque with little repayment history. Hence, trade creditors are expected to react stronger to an increase in publicly available financial information by these types of companies.

Given this, we expect that more detailed financial statement information is positively related to the amount of trade credit obtained by small and young companies.

3. SAMPLE SELECTION AND RESEARCH DESIGN

3.1. Measuring Voluntary Disclosure

All limited liability companies subject to the Belgian Accounting Law of 1975 are required to prepare annual financial statements according to a legally prescribed format in which the different items to be disclosed are explicitly defined and file them with the Central Balance Sheet Office of the National Bank of Belgium (NBB) (article 98 of the Belgian Commercial Code). Large and listed companies are obliged to file full financial statements, whereas small companies are allowed to file abbreviated financial statements². Abbreviated financial statements contain less detailed information on a number of financial statements items. However, they still comprise an abbreviated balance sheet, profit and loss account and notes. The main benefit of filing abbreviated financial statements is that

disclosing sensitive information on sales and cost of sales is not required. Companies can only opt for abbreviated financial statements if they do not exceed two or more of the following criteria: (1) balance sheet total: € 3.65 million, (2) annual turnover: € 7.3 million and (3) average number of full-time employees < 50. If a company employs more than 100 full-time employees on an annual basis, the company is automatically categorised as a large company.

A small company has, however, the option to supply more information than legally required by filing complete financial statements or by disclosing more information in the abbreviated financial statements, such as the sales figure. In this study, we will focus on the latter form of voluntary disclosure. The financial statements represent one of the most reliable and most accessible sources of information about small and private companies, since stakeholders receive less public information about small and private companies from sources other than the financial statements. In this respect, the sales figure contains particularly valuable information for the stakeholders of small and private companies. For instance, it gives the supplier an idea of the company's market share, number of units sold or the sales margin. This information can thus be used to assess the financial position of the company in a more accurate way (Van de Wiele & Vandenbussche, 1999). Cole *et al.* (2012) found that sales, and in particular the sales evolution, is one of the figures where users of financial statements of private companies are most interested in. Consequently, the decision whether or not to disclose sales in the abbreviated financial statements influences the information that is available to suppliers, which may influence their trade credit decisions.

3.2. Sample Selection

The financial and accounting data used in this study were obtained from the Bel-first database made by Bureau van Dijk. This database provides information on company financial statements, ratios and activities for more than 2 million Belgian and Luxembourgian companies. Belgian companies are included in the dataset when they have less than € 3.65 million annual total assets over the period 2010-2012 and no more than 100 full-time employees on annual basis. In addition, we selected only those companies that were five years or younger (e.g., Manigart *et al.*, 2002). The reason for this is that young companies will be less likely to have long-established relationships with banks and suppliers. We also excluded companies active in the financial sector since they have different financial reporting requirements. Finally, we removed all entries with data errors (for example negative values in their assets). Our final dataset contained 255,422 company-year observations.

² In Belgium, medium-sized companies are not defined for accounting or financial reporting purposes (article 15 Companies Code).

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3.3. Estimation Model

To test the association between a company's accounts payable and the voluntary disclosure of sales (DISCL) we use the following regression model:

$$\begin{aligned} \text{ACCOUNTS_PAYABLE}_i = & \alpha_0 + \beta_1 \text{DISCL} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \beta_4 \text{PROFIT} \\ & + \beta_5 \text{SOLVENCY} + \beta_6 \text{LIQUIDITY} + \beta_7 \text{TLOANS} \\ & + \beta_8 \text{GROWTH} + \beta_9 \text{INVENTORY} \\ & + \beta_{10} \text{ACC_RECEIV} + \beta_{11} \text{TANG_FIXED_ASSETS} \\ & + \beta_{12-15} \text{INDUS} + \beta_{16-17} \text{YEAR} + e \end{aligned}$$

Following a.o. Petersen & Rajan (1997), Deloof & Jegers (2008), Huyghebaert (1993), Van den Bogaerd & Aerts (2014), the dependent variable in our study is the ratio of accounts payable to total assets. However, as the level of accounts payable is the result of both the supply and demand for trade credit, we recognise that we are only able to estimate reduced-form coefficients, which includes both effects.

The test variable DISCL is a dummy variable that takes value 1 for companies disclosing sales in the abbreviated financial statements of the previous year and 0 otherwise.

The empirical model includes control variables in line with prior literature on the determinants of accounts payable. Consistent with the financing and pecking order theory in Section 2.2, small and young companies prefer institutional finance over trade credit, because the latter form of finance is more expensive for them. Companies that readily obtain institutional finance are generally the most profitable, the most solvent, the largest and older ones, since these characteristics provide them with credit quality, which facilitates access to institutional finance (Rodríguez-Rodríguez, 2006). Bearing the above in mind, we control for the size of the company (SIZE), using the natural logarithm of total assets and for the age of the company (AGE), using the natural logarithm of the numbers of years since incorporation of the company. PROFIT measures the profitability of the company and is measured as operating income divided by total assets. SOLVENCY is measured as equity divided by total assets. Similarly, more liquid companies will need less trade credit to finance their operations. Boissay & Gropp (2007) argue that companies facing a liquidity shortage try to overcome the distress situation by using more trade credit. Hence, LIQUIDITY (ratio of current assets to current liabilities) is also expected to be negatively associated with accounts payable. Financing theo-

ry suggests that companies will use more trade credit when credit from financial institutions is limited. Consequently, companies with a high level of institutional debt (TLOANS) are expected to have a reduced demand for accounts payable, given that bank loans are a cheaper source of finance than trade credit (Ogawa *et al.*, 2013). TLOANS is measured as the short- and long-term debt with financial institutions to total assets (e.g., N. Huyghebaert *et al.*, 2007; Ogawa *et al.*, 2013). Fast growing companies may have a higher demand for trade credit in order to finance new investments and working capital (e.g., Huyghebaert, 2006; García-Teruel & Martínez-Solano, 2007; Van den Bogaerd & Aerts, 2014). Therefore, we expect a positive association between GROWTH (yearly change in total assets) and accounts payable. Companies having a greater level of inventory suggest a greater volume of purchases from suppliers, and hence will have a higher demand for trade credit (e.g., Elliehausen & Wolken, 1993). INVENTORY (ratio of inventory to total assets) is, therefore, expected to have a positive association with accounts payable. Companies that invest in accounts receivable are more likely to have a high value of accounts payable as well, in order to compensate the trade credit offered to their customers (Paul & Wilson, 2007). We expect a positive association between ACC_RECEIV (ratio of accounts receivable to total assets) and the dependent variable. We also control for tangible fixed assets (TANG_FIXED_ASSETS, ratio of tangible fixed assets to total assets) as these assets may serve as collateral for bank loans. Small companies whose assets are highly tangible are likely to have easier

“Trade credit is said to play a critical role in sustaining company growth (Du *et al.* 2012). Given this, combined with the economic importance of SMEs, very little research exists regarding the effect of increased financial information on the access to trade credit.”

access to bank debt, which could reduce their demand for trade credit. This argument is supported by Huyghebaert (2006), who finds that asset tangibility and trade credit are significantly negatively correlated. As argued by Ng *et al.* (2000), trade credit terms vary widely across industries, but have only limited variation within industries. These findings support the idea that the industry a company operates in, is an important determinant of the offered credit terms. Therefore, we construct five

industry dummies at the two-digit NACE level to control for differences in trade credit supply across industries. The data covers the years 2010 to 2012 and two YEAR dummies for 2011 and 2012 are included (the year 2010 is the reference category). An overview of the variable definitions and measurement is provided in Table 1.

Several of the variables had extreme values. To mitigate the impact of outliers, variables were winsorized by 1 % in the upper and lower tails of the distribution.

Table 1: Variable Definitions

Dependent variable		Expected sign
<i>ACCOUNTS_PAYABLE</i>	The ratio of accounts payable to total assets at year t.	
Test variable		
<i>DISCL</i>	A dummy variable with the value one if the sales figure is disclosed in the abbreviated financial statements at year t – 1.	+
Control variables		
<i>SIZE (x 1,000)</i>	The natural logarithm of total assets at year t.	-
<i>AGE</i>	The natural logarithm of the number of years since incorporation at year t.	-
<i>PROFIT</i>	Operating income to total assets at year t.	-
<i>SOLVENCY</i>	Equity divided by total assets at year t.	-
<i>LIQUIDITY</i>	Current assets to current liabilities at year t.	-
<i>TLOANS</i>	Short- and long-term debt with financial institutions to total assets at year t.	-
<i>GROWTH</i>	Yearly change in total assets.	+
<i>INVENTORY</i>	Inventory to total assets at year t.	+
<i>ACC_RECEIV</i>	Accounts receivable to total assets at year t.	+
<i>TANG_FIXED_ASSETS</i>	Tangible fixed assets to total assets at year t.	-
<i>INDUS</i>	Manufacturing, Wholesale and Retail, Transport, Hotel and Catering, Services.	

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

Table 2 presents descriptive statistics on the variables used in the empirical analysis. During 2010-2012, the proportion accounts payable on total assets amounts to, on average, 0.146. This is in line with previous studies on trade credit in small companies (Berger & Udell, 2002; Fisman & Love, 2003; Huyghebaert, 2006; Deloof & La Rocca, 2014). Approximately 14 % of the companies in our sample voluntarily disclosed the sales figure. Untabulated statistics indicate that 13 % of the companies disclosed their sales voluntarily in 2010, which decreased to 12 % in 2011 and increased to 18 % in 2012. The companies in our sample are rather small: on average total assets amount to approximately € 140,000 (the natural logarithm of total assets represent on average 4.940). The average age of the companies in our sample is 2.5 years (the natural loga-

“Our results indicate that increased disclosure in the financial statements is positively associated with the amount of obtained trade credit. This may suggest that voluntary disclosure decreases information asymmetry with regard to the company's credit quality.”

rithm of total assets represent on average .929). The companies generate an average PROFIT of 6.7 % and average solvency and liquidity ratios of 11.8 % and 285.5 %, respectively. Furthermore, the total loans, inventory, accounts receivables and tangible fixed assets make up 24.1 %, 7.8 %, 16.3 % and 36 % of total assets, respectively. Finally, the average growth rate of the companies in our sample is 23.3 %.

Table 3 presents the Pearson correlation coefficients between dependent and independent variables. There is a significant positive correlation between accounts payable and voluntary disclosure (*DISCL*) (0.029). This shows that the voluntary disclosure of sales is associated with an increase in a company's accounts payable. As regards control variables, all the variables are significantly correlated with the dependent variable and show the expected sign. With regard to the correlations between independent variables, there are no high values between them that could lead to multicollinearity problems (all VIF values are well below 10 (Kutner *et al.*, 2005)).

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Table 2: Descriptive Statistics

Variables	Mean	S.D.	Median	Min.	Max.
ACCOUNTS_PAYABLE	.146	.213	.054	.000	1.113
DISCL	.143	.350	.000	0	1
SIZE	4.940	1.448	4.940	.830	8.80
AGE	.929	.570	1.099	.000	1.61
PROFIT	.067	.380	.069	-1.78	.910
SOLVENCY	.118	1.098	.222	-10.9	1.00
LIQUIDITY	2.855	9.517	1.155	.010	108.5
TLOANS	.241	.294	.109	.000	1.22
GROWTH	.233	.765	.022	-.720	4.03
INVENTORY	.078	.183	.000	.000	.950
ACC_RECEIV	.163	.211	.070	.000	.870
TANG_FIXED_ASSETS	.360	.308	.272	.000	1.00

N=255,422

ACC_PAYABLE = Ratio of accounts payable to total assets;

DISCL = Dummy variable: DISCL = 1 if company disclosed sales in the previous year;

SIZE = Natural logarithm of total assets;

AGE = The natural logarithm of the number of years since incorporation;

PROFIT = Operating income to total assets;

SOLVENCY = Equity divided by total assets;

LIQUIDITY = Current assets to current liabilities;

TLOANS = Short- and long-term debt with financial institutions to total assets;

GROWTH = Yearly change in total assets;

INVENTORY = Inventory to total assets;

ACC_RECEIV = Accounts receivable to total assets;

TANG_FIXED_ASSETS = Tangible fixed assets to total assets;

Two-digit industry indicator variables are included in the model but not tabulated.

“Financial institutions possess the power to demand information privately from small companies, whereas trade creditors rely primarily on financial information that is publicly available for evaluating companies’ creditworthiness (Arrunada 2011; Kitching *et al.* 2013). This is particularly relevant for young companies with no or only limited reputation and established relationships (Fisman & Love 2003; Huyghebaert 2006).”

Table 3: Pearson Correlation Matrix

	Acc_Payable	Discl	Size	Age	Profit	Solvency	Liquidity	TLoans	Growth	Inventory	Acc_Receive	Tang_Fixed_Assets	VIF
Acc_Payable	1												
Discl	.029**	1											1,027
Size	-.141**	-.058**	1										1,044
Age	-.013**	.068**	.123**	1									1,287
Profit	-.276**	-.021**	.255**	-.024**	1								1,410
Solvency	-.301**	-.001	.245**	-.053**	.486**	1							1,453
Liquidity	-.122**	-.002	-.011**	.012**	.032**	.131**	1						1,061
TLoans	-.170**	-.022**	.318**	.058**	-.120**	-.169**	-.103**	1					1,645
Growth	.042**	.004	.128**	-.120**	.173**	.078**	-.020**	.006**	1				1,067
Inventory	.132**	.024**	.072**	.020**	-.090**	-.035**	-.010**	.004*	.003	1			1,440
Acc_Receive	.360**	.021**	-.130**	.002	.045**	-.001	-.057**	-.236**	.079**	-.109**	1		1,336
Tang_Fixed_Assets	-.227**	-.026**	.209**	.030**	-.182**	-.123**	-.115**	.544**	-.018**	-.216**	-.364**	1	1,828

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

ACC_PAYABLE = Ratio of accounts payable to total assets;

DISCL = Dummy variable: DISCL = 1 if company disclosed sales in the previous year;

SIZE = Natural logarithm of total assets;

AGE = The natural logarithm of the number of years since incorporation;

PROFIT = Operating income to total assets;

SOLVENCY = Equity divided by total assets;

LIQUIDITY = Current assets to current liabilities;

TLOANS = Short- and long-term debt with financial institutions to total assets;

GROWTH = Yearly change in total assets;

INVENTORY = Inventory to total assets;

ACC_RECEIV = Accounts receivable to total assets;

TANG_FIXED_ASSETS = Tangible fixed assets to total assets;

Two-digit industry indicator variables are included in the model but not tabulated.

4.2. OLS Regression

Table 4 shows the results for the pooled ordinary least squares estimation. The first column contains results for the full sample, for which we include year dummies. The other columns contain the results of running the model on individual sample years. All the models are significant ($p = 0.000$) and have an adjusted R^2 of 0.316, 0.317, 0.315 and 0.317 for respectively the pooled sample and the years 2010, 2011 and 2012.

Voluntary disclosure (*DISCL*) is positively and significantly associated with the level of accounts payable in all our models. This

result indicates that small and young companies that disclose more financial information receive more trade credit from their suppliers. This may suggest that voluntary disclosure decreases information asymmetry with regard to the company's credit quality.

All control variables are statistically significant in all our models and have the predicted coefficient sign, except for *SIZE*, which has a positive coefficient. This is in line with the findings of Petersen & Rajan (1997), who argue that size is a proxy for company creditworthiness. Larger companies will have easier access to credit, but they will also find it easier to obtain trade credit from their suppliers.

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In line with previous research, we find that *AGE*, *PROFIT* and *SOLVENCY* are negatively associated with the level of accounts payable, suggesting that older, more profitable and solvent companies need less trade credit to finance their purchases. These results support previous research which contends that financially healthy companies are more likely to obtain institutional finance. We also find that *TLOANS* is negatively correlated with the level of accounts payable. This result is consistent with the notion that companies prefer bank loans over trade credit, because bank

loans are a cheaper source of finance than trade credit. Our results further indicate that *GROWTH*, *INVENTORY* and *ACC_RECEIV* are positively associated with the level of accounts payable. Finally, *TANG_FIXED_ASSETS* is negatively associated with the level of accounts payable, indicating that these assets may serve as collateral for bank loans, which reduces the demand for trade credit.

Further the control variables remain significant when we estimate the models on each year individually.

Table 4: Linear Regression Results

Variable	Dependent variable = ACC_PAYABLE							
	Full sample		Year 2010		Year 2011		Year 2012	
	β	t-value	β	t-value	β	t-value	β	t-value
Constant	.105***	43.507	.104***	25.312	.113***	27.924	.106***	26.143
<i>DISCL</i>	.008***	7.201	.009***	4.353	.008***	4.018	.008***	4.250
<i>SIZE</i>	.016***	43.702	.015***	24.105	.016***	25.591	.016***	25.907
<i>AGE</i>	-.007***	-7.279	-.007***	-3.880	-.009***	-5.269	-.006***	-3.437
<i>PROFIT</i>	-.113***	-72.221	-.109***	-38.970	-.112***	-41.197	-.118***	-44.527
<i>SOLVENCY</i>	-.061***	-100.281	-.062***	-57.974	-.060***	-57.535	-.060***	-58.240
<i>LIQUIDITY</i>	-.002***	-39.024	-.002***	-21.589	-.002***	-22.072	-.003***	-23.826
<i>TLOANS</i>	-.121***	-63.856	-.118***	-36.065	-.120***	-36.668	-.125***	-37.832
<i>GROWTH</i>	.016***	28.148	.018***	17.628	.015***	15.457	.016***	15.689
<i>INVENTORY</i>	.094***	32.557	.095***	18.885	.094***	18.787	.092***	18.740
<i>ACC_RECEIV</i>	.295***	125.763	.295***	71.939	.295***	72.755	.293***	73.138
<i>TANG_FIXED_ASSETS</i>	-.068***	-35.060	-.066***	-19.572	-.070***	-20.830	-.068***	-20.276
Industry fixed effects								
<i>Manufacturing</i>	Omitted		Omitted		Omitted		Omitted	
<i>Wholesale and Retail</i>	.026***	9.113	.028***	11.976	.023***	9.802	.027***	11.357
<i>Transport</i>	.003	1.206	.000	.025	.000***	-.025	.010**	2.037
<i>Hotel and Catering</i>	.046***	24.694	.042***	12.973	.045***	13.951	.051***	15.691
<i>Services</i>	-.043***	-39.340	-.040***	-21.004	-.046***	-24.414	-.043***	-22.669
Annual fixed effects	Included							
Number of observations	255,422		79,064		85,509		90,849	
Adjusted R ²	.316		.317		.315		.317	
F-statistic	4444,906		1601,99		1673,55		1762,93	
p-value	.000		.000		.000		.000	

All p-values are two-tailed.

* Statistically significant at 10 % level

** Statistically significant at 5 % level

*** Statistical significance at 1 % level

ACC_PAYABLE = ratio of accounts payable to total assets;

DISCL = Dummy variable: *DISCL* = 1 if company disclosed sales in the previous year;

SIZE = Natural logarithm of total assets;

AGE = The natural logarithm of the number of years since incorporation;

PROFIT = Operating income to total assets;

SOLVENCY = Equity divided by total assets;

LIQUIDITY = Current assets to current liabilities;

TLOANS = Short- and long-term debt with financial institutions to total assets;

GROWTH = Yearly change in total assets;

INVENTORY = Inventory to total assets;

ACC_RECEIV = Accounts receivable to total assets;

TANG_FIXED_ASSETS = Tangible fixed assets to total assets.

5. CONCLUDING REMARKS

In this paper we investigate the association between voluntary disclosure and the level of accounts payables for small and young companies. We contribute to the literature by focusing on small and private companies, which addresses an important gap in the voluntary disclosure literature. Up to now, evidence on voluntary disclosure mainly relates to large and listed companies. In addition, we focus on trade credit, which has been shown to be an important source of short-term finance for small and young companies (Berger & Udell, 2006). Our findings may have implications on the financing behaviour of young small companies. In general, small companies are informationally opaque, which makes it difficult for them to have easy access to external finances. This is particularly relevant for young companies with no or only limited reputation and established relationships. Hence, trade creditors are expected to react stronger to an increase in publicly available financial information by these types of companies.

Our results indicate that increased disclosure in the financial statements is positively associated with the amount of obtained trade credit. This may suggest that voluntary disclosure decreases information asymmetry with regard to the company's credit quality. In addition, we find that trade credit is negatively related to age, profitability, solvency, the level of total bank loans and tangible fixed assets and positively related to growth, the level of inventories and accounts receivable.

Our results are likely to be of interest to policymakers considering simplifying or even abolishing financial reporting requirements for small companies (Accounting Directive 2013/34/EU).

BIOGRAPHY

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R&D Collaborations in the Biotechnology Industry: the myths, the facts and the outcomes

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Abstract

Modern biotechnology originates from academic laboratories and has revolutionised the way in which new drugs are developed. However, organisations developing new drugs are faced with long development times, high R&D costs and high chances of failure during the R&D process. At the same time, the pharmaceutical industry is confronted with a decline in R&D productivity: additional R&D investments in novel drug development do not lead to a proportionate increase in new medicines on the market.

For researchers, managers, medical practitioners and patients, it is of great importance to curb the withering efficiency of the drug development process and to keep life-saving therapies becoming available to patients. Collaborations between large pharmaceutical firms, innovative SMEs and/or academic institutions are considered key in delivering a solution to the declining R&D productivity. Collaborations provide organisations with knowledge, complementary resources and capabilities during the drug development process, which in turn leads to improved innovative outcomes.

This paper summarises our research on inter-organisational collaborations in the biotechnology industry. We investigate some of the widely supported theories on collaboration during drug development in a number of separate research papers and look back at the results of collaborative drug development efforts in the pharmaceutical biotechnology field. We develop a theoretical framework for explaining collaborations in the personalised medicine field and scrutinise how knowledge transfer networks in the biotechnology industry are structured. Our findings allow for structuring the drug development process so that in the future government, academia and industry find better ways to collaborate and new therapies will become available to patients.

1. Introduction

New therapeutics and innovation in medicine are major contributors to the sustained population and economic growth witnessed in the previous century (Lichtenberg, 2005). Today, even while there are still plenty of opportunities for innovation in medicine (Cockburn, 2007; Spear, Heath-Chiozzi, & Huff, 2001), the pharmaceutical industry struggles with bringing new products to the market and is faced with a declining research and development (R&D) productivity (DiMasi *et al.*, 2003; Pammolli *et al.*, 2011). This declining R&D productivity, the patent cliff, higher demands from regulators, increasing pressure from reimbursement parties and fierce generic competition put pressure on the revenues and mar-

gins of large pharmaceutical concerns (Paul *et al.*, 2010).

For researchers, managers, practitioners and patients, it is of great importance that the withering efficiency of the drug development process is curbed and that life-saving therapies keep becoming available to patients. The final aim of any strategic R&D decision in the industry, and thus also the decision to collaborate, is to reduce the attrition rate, the percentage of drugs that fail during clinical development (DiMasi *et al.*, 2003; Paul *et al.*, 2010). Leading contributions state that collaboration during drug development is key in delivering a solution to this problematique (Henderson & Cockburn, 1994; Danzon *et al.*, 2005; Kaitin, 2010; Pammolli *et al.*, 2011). The role of bio-

technology (SMEs) in this process is of particular importance: the share of novel drugs on the market developed by or originating from biotechnology SMEs has grown tremendously in the past years (Lawrence, 2007; Munos, 2009). Indeed, a rise in the number of inter-organisational collaborations and strategic alliances during the drug development process is witnessed over the past decade (Ernst & Young, 2011).

“We do not find a relation between R&D collaboration and improved innovative outcome.”

The literature presents a number of factors that influence drug development success. In this dissertation, we scrutinise the impact of these factors, most notably the impact of collaboration strategies. By doing so, we provide insights on this key strategic matter to managers active in pharmaceutical R&D. We investigate some of the widely supported theories on collaboration during drug development and look back at the results of collaborative drug development efforts in the medical biotechnology field. We provide a theoretical framework to firms wishing to enter the personalised medicine field and scrutinise the role of a biotechnology organisation’s network in the industry. The conclusions of our research aid in finding better ways to structure the drug development process so that in the future government, academia and industry find better ways to collaborate and new therapies become available to patients.

Why are inter-organisational collaborations important in the biotechnology industry? A high number of discoveries and technologies applied in modern biotechnology are university-born. These discoveries and technologies serve as input resources for the biotechnology industry (Cockburn & Henderson, 1998). At academic institutions, the question arose as to how these academic-born biotechnology applications and tools could be further developed and commercialised. Traditionally, this can be done in two ways: academic institutions can license their assets to existing organisations (licensing agreement); or they can license their assets to a new biotechnology firm (a spin-off) (Ahn & Meeks, 2008). This has led to the foundation of a large number of R&D-based small and medium-sized enterprises (SMEs) that focus on the development of biotechnology applications and technologies coming from academic institutions, most notably in the drug development industry.

This paper presents the summary of doctoral dissertation, written under supervision of the Prof. dr. Ilse Scheerlinck. Our papers focus on the application of biotechnology in the area of new drug development. Focusing on this particular application field is necessary since biotechnology should be regarded as an enabling technology, employed in many industries. Studying all biotechnology application fields would broaden the scope of any biotechnology study and render conclusions useless.

In the first part of the dissertation (Chapters 2-5), we scrutinise inter-organisational collaborations between different key biotechnology organisations during drug development. The unit of analysis are the collaborations and the firms engaging in the collaboration. Networks of firms active in the biotechnology industry are scrutinised in the second part of the dissertation (Chapters 6 and 7).

An overview of the research questions addressed in this dissertation is presented in Table 1.

Chapter	Research Question
2	What is the impact of the concentration of the early-stage R&D and late-stage R&D knowledge base on the propensity of pharmaceutical companies to engage in collaborative clinical drug development?
3	Does inter-organisational collaboration between private and/or public organisations during the clinical development of novel biologic therapeutics influence clinical trial success?
4	Does initiating or halting inter-firm collaboration during clinical development of a novel biologic therapeutic influence the success rate of clinical development?
5	What influences the propensity of drug-developing companies to engage in inter-organisational collaborations when developing personalised medicine applications?
6	What is the relationship between organisational characteristics and presence in a board-of-directors-network in the context of the biotechnology industry?
7	How similar are the strategic and the innovation networks in a regional biotechnology industry?

Table 1: Overview of the research questions addressed in this dissertation.

2. Literature Review

2.1. R&D Collaborations in the Biotechnology Industry

Firms developing novel (biotechnology-based) drugs are faced with long development times, high R&D costs and high chances of failure during development (DiMasi *et al.*, 2003; DiMasi & Grabowski, 2007). The cost of developing drugs is invariably high, but varies across firms since it largely depends on the number of failed drug development programs of the firm and the firm’s strategic choice with regard to the risk pro-

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file of their development portfolio (Adams & Brantner, 2006; Munos, 2009). Drug-developing biotechnology SMEs and academic spin-offs often do not possess the resources and capabilities to develop candidate medicines all the way to the market. Collaborations with other organisations, most notably with large pharmaceutical companies, provide these biotechnology SMEs with the access to complementary resources and capabilities necessary to further develop candidate drugs. Collaboration is often the only option for SMEs. Deals and partnerships with incumbents furthermore provide validation of the SME's technology and provide for a possible exit for the early private investors.

In the past decades, incumbents in the pharmaceutical industry witnessed a decline in their R&D productivity, which means that additional R&D investments in novel drug development did not lead to a proportionate increase in new medicines (DiMasi *et al.*, 2003; DiMasi & Grabowski, 2007; Munos, 2009; Pammolli *et al.*, 2011; Paul *et al.*, 2010). As a response, large pharmaceutical companies increased their focus on external innovation, with large pharmaceutical companies looking at young innovative biotechnology companies and academic institutions to provide them with novel technologies and compounds to fill their dwindling development pipelines (Kaitin, 2010).

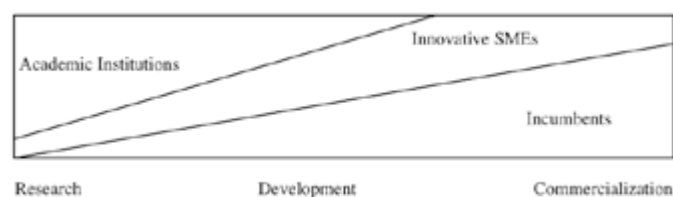


Figure 1: Product development in the red biotechnology industry, central actors.

In summary, biotechnology SMEs need to collaborate with large pharmaceutical firms and large pharmaceutical companies need to collaborate with biotechnology SMEs. This seemingly inevitable interdependency leads to an industry model with inter-organisational collaboration in the centre. Figure 1 presents a high-level overview of the R&D process and the major players in each phase of the R&D process¹ (Kaitin, 2010). Academic, often government-funded, institutions are the most important players in the early research phase. They perform the

¹ Note that we have excluded stakeholders that never own/manage the R&D process or project. This means we excluded collaborations focusing functional outsourcing (e.g. collaborations with Clinical Research Organizations (CROs)).

R&D activities bearing most risk and protect most promising assets by patents. These patents can then be licensed to third parties such as (new) innovative biotechnology SMEs or large pharmaceutical companies. These firms will then further develop the technology. The majority of innovative SMEs active in the medical biotechnology industry will be positioned in the centre part of the R&D process. These companies further develop candidate compounds or technologies further down the development process in order to sell or partner these assets with other,

often large, companies. These large firms possess resources, know-how and the strategic need to further develop and commercialise the biotechnology medicine candidate. In return for the compound, the innovative biotechnology SMEs or academic institutions receive payments and knowledge from the large pharmaceutical firm, which they use as inputs for the further development of proprietary products and technologies in their R&D portfolio (Kaitin, 2010; Willemstein, van der Valk & Meeus, 2007; Dekeyser, R., personal communication, 23/05/2007).

The underlying reasons as to why two organisations would collaborate during drug development are subject of a large body of literature. Sampson (2004) states that 'interfirm R&D alliances allow for accessing new technologies, acquiring economies of scale and scope in R&D activities and shortening development times' (Sampson, 2004: 421). Pisano (1997) stresses the advantages of collaboration for innovation due to specialisation, while other authors stress the reduced risk of cooperative technology development as opposed to technology development by a single firm (Chakrabarti & Weisenfeld, 1991). Collaborations can also act as a formal vehicle to access or generate knowledge necessary for successful product development or commercialisation (Grant & Baden-Fuller, 2004). Collaboration during the R&D process may also involve some disadvantages relating to the costs and risks associated with contracting, and the possible existence of 'lemons'² in markets for know-how (Pisano, 1997).

For incumbent pharmaceutical firms, this means that they currently manage a clinical development portfolio consisting of a plethora of project types: (1) clinical development of own therapeutic candidates; (2) clinical development of acquired therapeutic candidates; and (3) co-development of therapeutic candidates with external parties such as academic institutions or other firms. In this dissertation, we have focused our

² Lemons are projects with relatively poor prospects to reach the market. Therefore, they tend to be licensed to collaborative partners while projects with better prospects are developed internally.

research on the latter category (3), namely on the development of biologic therapeutic compounds by multiple organisations (co-development).

2.2. Theoretical Framework: The Knowledge-Based View

We study inter-organisational collaborations in the biotechnology industry from the perspective of the knowledge-based view on the firm (KBV), building on a rich tradition (e.g. Cockburn & Henderson, 1998; Nesta & Saviotti, 2005; Rothaermel & Deeds, 2004; Zhang *et al.*, 2007). The KBV considers knowledge to be the most important resource of a firm and states that the principal role of the firm is as an integrator of knowledge (Kogut & Zander, 1992; Grant, 1996; Grant & Baden-Fuller, 2004). Firms outperform markets in sharing and transferring knowledge (Alavi & Leidner, 2001). However, production requires the application of multiple types of knowledge that cannot be found within a single firm. As a result, learning and innovation will occur both inside and outside the firm's boundaries (Cohen & Levinthal, 1990; Hitt, Ireland, & Lee, 2000; Kogut & Zander, 1992). Especially in drug development accessing and integrating external knowledge is key to an organisation's competitive advantage and success, since sources of knowledge are multiple, heterogeneous and involve significant knowledge spillovers (Cohen & Levinthal, 1990; Grant, 1996; Grant & Baden-Fuller, 2004; Pammolli *et al.*, 2011).

The KBV regards the organisation's need to access and leverage external knowledge as one of the key determinants to enter inter-organisational collaborations. In recent years, the formation of alliances as a formal vehicle to access or generate knowledge has soared, mainly due to the increasing role of external knowledge and the trend of firms focusing on their core competencies (Grant & Baden-Fuller, 2004). In a drug development context, this dynamic is further stimulated by the fact that novel drug development is characterised by the presence of a complex and expanding knowledge base (Grant & Baden-Fuller, 2004; Powell, Koput, & Smith-Doerr, 1996).

One of the main determinants of a firm's propensity to engage in inter-organisational collaboration relates to the characteristics of its knowledge base, i.e. its existing stock of knowledge resources. In the strategy literature, a firm's existing knowledge base size, scope, concentration and coherence are found to influence the firm's absorptive capacity, i.e. the firm's capability to recognise, utilise and exploit external knowledge (Cohen & Levinthal, 1990; Nesta & Saviotti, 2005; Zhang *et al.*, 2007). Differences in absorptive capacity explain differences in firm performance and in firm propensity to engage in inter-organ-

isational collaboration (Arora & Gambardella, 1994; Cockburn & Henderson, 1998; Zhang *et al.*, 2007). Evidence shows that an increased absorptive capacity, as a function of knowledge base, increases the firm's propensity to engage in collaborations (Henderson & Cockburn, 1994; Mowery, Oxley, & Silverman, 1996; Brusoni, Prencipe, & Pavitt, 2001).

2.3. Knowledge Exploration and Exploitation

Gaining access to or generating new knowledge is one thing, but the application of this knowledge within companies or partnerships presents new challenges. Seminal contributions in the literature focus on the application of knowledge resources and distinguish between knowledge exploration and knowledge exploitation activities within firms (March, 1991). While knowledge exploration activities focus on the creation of new knowledge, exploitation activities rather aim at leveraging the firm's existing knowledge resources for commercial ends (March, 1991; Rothaermel & Deeds, 2004). New product performance is enhanced by the complementarity of exploration and exploitation innovation activities (Bauer & Leker, 2013). In order to stay competitive in the long run, firms thus need to balance exploration and exploitation activities. The characteristics of the knowledge applied by organisations during early-stage R&D differ from these of the knowledge applied during late-stage R&D. Early-stage pharmaceutical R&D is characterised by creative and more exploration-based research with a focus on novelty. In contrast, late-stage pharmaceutical R&D is characterised by the application of routines and tacit knowledge, i.e. exploitation.

Similarly, inter-organisational collaborations can have an exploration, exploitation or mixed character, depending on the aims of the partnering firms or even the particular collaborative project involved (Lavie & Rosenkopf, 2006). If the main goal of the collaboration is exploration, i.e. knowledge generation, firms act as vehicles of learning (Rothaermel & Deeds, 2004; Lavie & Rosenkopf, 2006). Exploitation, or knowledge access, on the other hand, allows firms to leverage the other firm's (complementary) knowledge while they remain focused on the proprietary core competencies (March, 1991; Grant & Baden-Fuller, 2004). Colombo, Grilli, & Piva (2006) state that exploitation collaborations are situated mainly in a commercialisation setting while exploration collaborations are mainly situated in the field of technology (development). In the drug development industry, exploitation collaborations 'focus on the "D" in the research and development process and are entered into with the goal to join existing competencies across organizational boundaries in order to generate synergies, which are then shared across the partners' (Rothaermel & Deeds, 2004; p. 205).

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Grant & Baden-Fuller (2004) state that the focus in strategic alliances generally lies on accessing (exploiting) knowledge, rather than generating (exploring) knowledge. Focusing on exploitation and thus foregoing joint learning opportunities might imply that the partners involved have different long-term strategic goals, putting pressure on the relationships in the collaboration (Tidd & Izumimoto, 2002). Empirically, both motivators are observed as a driver for collaborations and the dichotomy should be viewed as a continuum in which firms balance exploration and exploitation activities within their collaborations (Mowery *et al.*, 1996; Lavie & Rosenkopf, 2006).

2.4. Inter-Organisational Networks

As a result of multiple collaborations in different domains such as commercial or R&D activities, firms become embedded in inter-organisational networks. These networks represent the position of the firm in its environment and are formed by the links between firms and other organisations or stakeholders. Firms that are a member of these networks have enhanced access to resources, most notably to knowledge, and are aware of opportunities that are not accessible to organisations outside of the network (Gulati, 1999; Shan, Walker, & Kogut, 1994; Powell *et al.*, 1996).

In this dissertation, we investigate why pharmaceutical firms use exploitation collaborations during new medicine development and what the impact of these collaborations is on developmental success. We apply the KBV to current trends in drug development and theorise on future types of inter-organisational collaborations in the industry. In the last part of the dissertation, we study the role of networks in the biotechnology industry. Inter-organisational networks provide firms with a way to access external resources, most importantly: knowledge (Gulati, 1999; Ahuja, 2000). This complements the first part of the dissertation as variance in organisational performance is best explained by a combination of the organisation's internal capabilities such as absorptive capacity *and* its networking activities (Zaheer & Bell, 2005; Zaheer, Gözübüyük, & Milanov, 2010).

3. Main Findings

In this section, we summarise the main findings of each chapter in the dissertation. Following this, we integrate our findings

in a general conclusion and discuss main limitations of the dissertation and propose avenues for future research.

3.1. Chapter 2: Knowledge Bases and Collaboration Propensity During Clinical Drug Development

In this chapter, the theory of the knowledge-based view on the firm (KBV) is applied to the pharmaceutical industry, one of the main user industries of red biotechnology. Different knowledge bases exist within pharmaceutical companies and not all of these knowledge bases contribute equally to a firm's propensity to collaborate, i.e. the number of inter-organisational collaborations a firm initiates in a given time period. We consider two distinct yet interdependent knowledge bases within pharmaceutical firms, each characterised by different types of knowledge and knowledge applications: the preclinical R&D and the clinical development knowledge bases. Preclinical R&D concerns early-stage R&D, which is characterised by knowledge exploration activities. Clinical development concerns late-stage R&D, which is characterised by knowledge exploitation activities. The research question addressed in this chapter is: *What is the impact of the concentration of the early-stage R&D and late-stage R&D knowledge base on the propensity of pharmaceutical companies to engage in collaborative clinical drug development?* We model the early-stage R&D knowledge base of 17 multinational pharmaceutical concerns on their patenting activity.

The late-stage R&D knowledge base of these firms is derived from their clinical trial activities. Based on existing literature, variables that control for firm size, earnings before interest and taxes, R&D intensity, headquarter location and firm heterogeneity were added to the model.

The results of our study confirm the main argument of the KBV, namely that R&D intensive firms collaborate more during new product development. Furthermore, the hypothesis that pharmaceutical companies with a concentrated clinical development knowledge base collaborate less during clinical drug development is accepted. The tendency to collaborate less when the firm possesses a concentrated knowledge base is explained by the fact that focusing clinical development activities results in limited knowledge spillovers. Knowledge spillovers increase the firm's propensity to collaborate as they generate excess knowledge and increased absorptive capacity to capitalise on.

Contrary to previous research, we find no relation between the concentration of the preclinical R&D knowledge base and the firm's propensity to collaborate. The fact whether knowledge

“Policies that aim to stimulate knowledge exchange among biotechnology actors and the innovative capacity of high-technology industries should do so by stimulating the expansion of the region's strategic networks such as the Board-of-Directors-network.”

spillovers from early R&D are abundant or scarce does not impact the number of collaborations during clinical drug development. The absence of a relation between the preclinical R&D knowledge base and collaboration in the clinic may point to a possible misalignment between the pharmaceutical firm's preclinical and clinical R&D knowledge bases. It appears that the linkage between the different stages of the R&D process has been weakened due to the industry's recent focus on external innovation. Pharmaceutical concerns should therefore reconsider the role of their preclinical R&D research organisation and actively adapt and align their preclinical R&D activities to the, later-stage, clinical development pipelines, for instance by focusing preclinical R&D activities on associated biomarker programs. Pharmaceutical firms should be aware that early-stage R&D activities remain a way to explore new knowledge and opportunities, next to complementing the clinical activities. An unbalanced approach to preclinical R&D reorganisations in the face of declining R&D productivity, for instance by placing the focus on complementing the clinical development pipeline, might therefore be less desirable in the long run.

A weak interaction effect between the concentration of both knowledge bases in the pharmaceutical firm exists. Firms combining a concentrated clinical knowledge base with a concentrated preclinical knowledge base collaborate more during clinical drug development. Pharmaceutical firms with this type of R&D structure possess a better-aligned R&D pipeline, which makes that they benefit disproportionately from an increased absorptive capacity in a limited number of technologies and therapeutic areas. As a result, firms possessing this aligned knowledge base structure are better able to recognise and exploit external opportunities in their fields of expertise, which in turn leads to more collaborations.

3.2. Chapter 3: Clinical Development of Biologic Therapeutics: The Impact of Inter-Organisational Collaboration on Success

After scrutinising why drug-developing companies collaborate, we now turn to examining the impact of inter-organisational collaborations on clinical drug development success rates. As biotechnology drugs are developed by a heterogeneous set of actors, a distinction between public and private actors must be made. The research question addressed in this chapter is: *Does inter-organisational collaboration between private and/or public organisations during the clinical development of novel biologic therapeutics influence clinical trial success?* We control for clinical trial phase, product class, therapeutic indication and trial start year. We apply a multilevel analysis to account for the multilevel structure of clinical drug development and consider the

impact of product-specific and trial-specific variables on clinical trial success. This methodology does not allow for taking into account organisation-specific variables. Organisation-specific variables may also explain trial success. However, due to limitations on the methodology and available dataset, the effect of these variables is beyond the scope of our research.

Based on publicly available data on 204 biotechnology compounds, no (positive) effect of collaborative clinical development of biotechnology therapeutics on clinical trial success was found, regardless of whether these collaborations take place within or across sectors. These results support the hypothesis of the existence of 'lemons' and of 'ex ante' selection biases in R&D collaborations, which means that development projects with poor prospects are more likely to be partnered. Furthermore, these results highlight that organisations collaborate for obtaining other advantages than improved innovative outcome in the short run, such as long-term learning, building up knowledge resources and capabilities, sharing development risk and costs. Organisations engaging in collaborations also differ in terms of pre-endowed resources and capabilities that allow them to collaborate or innovate in a way that provides them with competitive advantage. These firm-specific characteristics should be included in further research. Academic institutions play an important role in fostering high-risk or commercially unattractive biomedical innovations. The absence of any significant relationship between success and inter-firm collaborations indicates that the benefits of collaborative clinical development are hard to achieve in a commercial setting, a subject that we investigate further in Chapter 4.

Importantly, the influence of our model's control variables on clinical trial success rates is not confirmed. Once controlled for the inherent success structure characterising drug development, no significant relationship between clinical trial phase, therapeutic category or product class and clinical trial success was found. Consequently, using solely these product- or trial-specific variables for predicting development success or for constructing a drug development pipeline is not desirable.

The findings in this chapter uncover the main weakness of the current drug development paradigm and the role of collaborations in red biotechnology innovation. It appears that drug development firms look at their product pipeline from a portfolio management perspective. We stress that collaborative R&D projects are more than a way to gain access to specific assets. Collaborative R&D projects are vehicles that should be used to combine capabilities and to promote inter-organisational learning. Currently, active learning from collaboration partners is not happening, or at least the benefits of this

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learning are not translating in an increased development success rate in the short run. Most likely, learning occurs among the collaboration partners, but the knowledge resources and capabilities exchanged or acquired during the collaboration benefit subsequent development projects. In order to achieve improved development results in the short run, we advocate an approach to collaborative drug development and external innovation that is more focused on leveraging existing and creating new knowledge and competencies. Organisations that want to be successful in drug development should do more than filling their pipeline with promising compounds, they should put management practices in place to create, capture and disseminate knowledge arising from collaborations. Firms should learn from a collaborative R&D project, next to managing it.

3.3. Chapter 4: Initiating and Halting Inter-Firm Collaborations during Early-Stage Clinical Development of Monoclonal Antibody Therapeutics: The Impact on Success

After scrutinising the role of different sectors during biotechnology drug development in Chapter 3, we turn to inter-organisational collaborations between firms. In this chapter, the following research question is addressed: *Does initiating or halting inter-firm collaboration during clinical development of a novel biologic therapeutic influence the success rate of clinical development?* In order to answer this research question, we investigate the development track of 104 monoclonal antibody therapeutics, which form a major class of red biotechnology products. We control for technology platform, therapeutic indication and clinical development start year.

This chapter focuses on collaborative drug development projects that aim for commercialisation by isolating inter-firm collaborations during clinical development. As in the previous chapter, we focus our analysis on determinants that influence clinical trial success that are located at the trial and product level. No significant effect of inter-firm collaboration during the first two phases of the clinical development process on Phase II trial success was found. The immediate added value of inter-firm collaborations on drug development, apart from sharing risks and costs of R&D, thus remains unclear. Future research should focus on finding long-term effects of collaborations on innovative outcome in order to look for more indirect drivers for and impact of collaborations.

We then turn to scrutinising the influence of changes in the project management consortium during the course of a clinical development project. Initiating or halting collaboration respec-

tively increases or decreases the knowledge base to which the development team has access, which in turn further influences clinical development success. When, for instance, a drug development company succeeds in attracting a partner to the project, this adds the new partner's knowledge to the stock of knowledge available to the drug development team. A larger knowledge increases the chances on development success. Similarly, compounds developed under collaboration that are abandoned by one of the parties are confronted with a loss of knowledge. Losing (access to) knowledge leads to a lower chance on success for these compounds. We however do not find any significant effect of initiating or halting inter-firm collaboration during early clinical drug development on antibody product development success. As a result, chances on clinical development success appear to be distributed randomly in the mAb space.

Once again, the much-cited product-level control variables influencing clinical trial success of monoclonal antibody therapeutics, such as the technology platform and therapeutic indications, are found to have no effect on Phase II success rate (see *supra*). Regarding the remaining control variable, we find that products that have been developed in more recent years have more difficulties to be successful in the clinic. As drug development companies are confronted with the fact that the 'low hanging fruit' has been picked and with an increasing level of safety and efficacy demanded by society, it appears to become harder to innovate (Cohen, 2005; Nightingale & Martin, 2004; Woodcock & Woosley, 2008). The increasing complexity of new technologies or targeted diseases and the rising level of evidence demanded by the regulatory agencies appear to outpace the industry's learning curve, further hampering R&D productivity.

3.4. Chapter 5: Inter-Organisational Collaborations during the Development of Personalised Medicine Applications: a Theoretical Framework

Personalised medicine (PM) – the tailoring of medical treatment to the patient's individual characteristics – is regarded to be the future of healthcare. Personalised medicine applications are a bundle of a therapeutic and a companion diagnostic that guides the clinical decision-making process. Knowledge on biotechnology tools and molecular diagnostics is therefore key for drug development companies to engage in the development of a PM application. In this chapter, we build a conceptual framework to answer the following research question: *What influences the propensity of drug-developing companies to engage in inter-organisational collaborations when developing personalised medicine applications?*

Two major factors influence a drug-developing company's strategic alliances during the development of personalised medicine applications: (1) the company's proprietary knowledge base on molecular diagnostics; and (2) the level of appropriability on the biomarker, which is the level of protection placed on the biomarker by third parties. When the appropriability on the biomarker is strong, collaboration is necessary and is driven by the need to access the rights to the biomarker. The nature of the alliance (explorative or exploitative) is then determined by the PM development firm's knowledge base in molecular diagnostics. Firms possessing an extensive knowledge base on molecular diagnostics will just need the right to use well-protected biomarkers (exploitation) and will tend to develop the companion diagnostic in-house. Firms possessing only a limited molecular diagnostics knowledge base will need access to both the biomarker (exploitation) as well as an external source of knowledge to assist in the development of the companion diagnostic (exploration). When the appropriability on the biomarker is low – which is only a matter of time – the PM developing company's knowledge base on molecular diagnostics will drive the need for collaboration. A summary of these findings is shown in Figure 2, which can be used as a management tool for R&D managers wishing to start or expand PM development programs.

		Firm's existing knowledge base on molecular diagnostics	
		limited	extensive
Appropriability on the biomarker	weak	(1) Exploration collaborations	(3) In-house development
	strong	(2) Exploration and exploitation collaborations	(4) Exploitation collaborations

Figure 2: Framework for the development of personalised medicine applications, R&D strategies.

The framework furthermore clarifies the incumbents' tendency towards proprietary development and the constant consolidation activity within the pharmaceutical industry: interesting yet more competitive opportunities become available to incumbents when complementary technologies lose their patent protection or become a commodity as a result of multiple collaborations. Incumbents are in a position where they can build up the necessary knowledge base through acquisitions, collaborations or R&D investments. With this knowledge base, incumbents can engage in opportunities created by new technological developments and block innovative SMEs from entering the market.

3.5. Chapter 6: The Relationship between Organisational Characteristics and Membership of a Biotechnology Industry Board-of-directors-network³

In this chapter, we study an important network in the biotechnology industry, namely the board-of-directors-network (BoD-network). Inter-organisational networks provide firms with a way to access external resources, most importantly knowledge (Gulati, 1999; Ahuja, 2000). The following research question is addressed in this chapter: *What is the relationship between organisational characteristics and presence in a board-of-directors-network in the context of the biotechnology industry?* The organisational characteristics relevant to the biotechnology industry are organisation category, age, size and whether or not organisations engage in innovative activities.

Academic spin-offs are more likely to be embedded in the regional biotechnology BoD-network. Remarkably, this network is characterised by a relative under-representation of the region's academic institutions, which are the sources of the biotechnology industry's main inputs. Academic institutions thus access and share strategic knowledge through other types of inter-organisational linkages than through interlocked directors. It also means that academic spin-offs use the BoD-network to connect to other spin-offs, customers or suppliers rather than to the parent academic institution. The BoD-network in the biotechnology industry must therefore be seen as a network that plays a major role in facilitating knowledge transfer in the commercial biotechnology setting and one with only limited connection to the scientific community.

Young organisations appear to overcome barriers to access inter-organisational networks by recruiting directors that are connected to other biotechnology organisations. Contrary to the literature, we do not find that older organisations are more prone to participate in inter-organisational networks, for instance due to the existence of superior internal routines for accessing external knowledge. On the other hand, larger organisations, that are typically characterised by a more hierarchical structure, which is considered a substitute of collaborations, appear to be more present in the BoD-network studied.

Biotechnology organisations that perform innovative activities and turn these into patent-protected assets form the backbone of the regional biotechnology BoD-network. Consequently, knowledge transfer at the board level, which predominantly concerns knowledge on corporate governance, strategic issues

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and management practices is not available to organisations that do not translate their innovative activities into patents or to organisations that have only limited innovative activity.

3.6. Chapter 7: Strategic and Innovation Networks in the Flanders Biotechnology Industry⁴

In this research note, we build further on the BoD-network scrutinised in the previous chapter and we investigate the following research question: *How similar are the strategic and the innovation networks in a regional biotechnology industry?*

A connection between two biotechnology organisations in the strategic network (proxy: BoD-network) increases the probability of forming a connection between the same organisations in the innovation network (proxy: Patent-network), and vice versa. The results of this study suggest that very few companies establish and maintain a strong position in the biotechnology innovation network as this network is clearly dominated by academic institutions. The strategic network has a more balanced composition and power structure than the innovation network. In this strategic network, knowledge is transferred across a wide range of industrial actors, including academic institutions. In Chapter 6, we already observed that academic institutions are relatively underrepresented in the strategic network. However, if academic institutions are present in the strategic network, they tend to exhibit a powerful role as a hub in the network. Academic spin-offs are also powerful players in the regional strategic network. As large pharmaceutical companies and smaller diversified universities are to a large extent absent in the networks, this further strengthens the case for investigating what organisation characteristics may influence the composition of the strategic (see also Chapter 6) and innovation networks.

4. Conclusions

We add to the KBV by showing that multiple knowledge bases exist within firms and that these knowledge bases each have a different influence on a firm's R&D collaboration strategy. Our evidence shows no significant relationship between the firm's early-stage R&D knowledge base and its collaboration propensity, which contradicts the current state of the theory (Arora & Gambardella, 1994; Cockburn & Henderson 1998; Zhang et al., 2007). The increasing importance of candidate medicines

originating from outside the company apparently has led to a misalignment between in-house early-stage R&D activities and late-stage clinical development activities. This misalignment raises the question as to whether early-stage R&D still has a long-term role to play within large diversified pharmaceutical firms. The fact that early-stage R&D activities are currently divested within pharmaceutical concerns harbours the risk that proprietary compounds have to compete with well-developed compounds from external sources, which accelerates the misalignment. Drug development companies should thus still invest in early-stage R&D that does not directly match the clinical development pipeline, such as R&D in new therapeutic indications. Pharmaceutical companies should therefore put in place a balanced and transparent selection and valuation process of in-house and external drug development projects.

We find that the pharmaceutical industry's heralded shift to a fully integrated pharmaceutical network (Kaitin, 2010), where actors from the public and private sectors collaborate in order to develop new compounds, is far from painless. We do not find a relation between R&D collaboration and improved innovative outcome, supporting a selection bias towards commercially less interesting projects with regard to the projects that are executed in collaboration (Pisano, 1997). It entails that collaboration, although heralded to be the solution to the R&D productivity crisis (Danzon *et al.*, 2005; Dimasi, 2001), will not lead to superior outcomes. This finding means that approaching the clinical development pipeline from a portfolio management perspective is not instrumental to escape the R&D productivity crisis. R&D managers using established product level indicators to predict development success or to construct a balanced innovation portfolio should be aware that most of these indicators do not appear to be relevant in explaining drug development success.

We expect that collaboration between innovative SMEs and incumbents in the pharmaceutical industry will always remain a crucial element of the red biotechnology industry. Incumbents will remain in the driver's seat and a further consolidation of the industry is to be expected. The sustainable character of this paradigm may also explain why the declining pharmaceutical R&D productivity conundrum is hard to escape from: interesting yet more competitive opportunities become available to incumbents when complementary technologies lose their patent protection or become a commodity as a result of multiple collaborations. At the same time, incumbents are in a position to build up the necessary knowledge base through acquisitions, collaborations or R&D investments. This knowledge base may help incumbents to engage efficiently in the opportunities created by new technological developments, and thus keep new entrants out of the market.

4 Published as: Crispeels, T., Huculeci, R., Willems, J., & Scheerlinck, I. (2013). Strategic and Innovation Networks in the Flanders Biotechnology Industry. In: T. Minshall, L. Mortara, & N. Pfeffermann (Eds.). *Strategy and Communication for Innovation* (pp. 85-99). Berlin Heidelberg: Springer.

In the second part of the dissertation, we uncover a self-reinforcing dependency between innovative activities and strategic network membership: innovative activity leads to presence in the strategic network, which in turn leads to increased or enhanced innovative activity. Consequently, policies that aim to stimulate knowledge exchange among biotechnology actors and the innovative capacity of high-technology industries should do so by stimulating the expansion of the region's strategic networks such as the BoD-network.

5. Limitations and Further Research

The observation of multiple knowledge bases existing within one firm, across different stages of the R&D process, indicates that researchers studying inter-organisational collaborations should clearly identify the type and domain of collaborations they wish to study. They should identify and match the collaborations that are subject of their analysis to the relevant knowledge bases involved. In order to gain a complete picture on R&D collaborations, the interdependence between knowledge bases within a (drug development) firm should be further scrutinised. An even more fine-grained approach towards studying knowledge bases within R&D firms, for instance by adding the firm's knowledge base regarding its commercial activities, could lead to an improved understanding of the full process of biotechnology R&D and commercialisation.

The definition of success used in our research is rather blunt, as it presents the launch of a new medicine as the most optimal outcome. Advanced success measures could also include market and health metrics.

In order to fully analyse the impact of collaborations on the success rate of clinical drug development, the pre-existing risk level of the different biologic drug development projects has to be measured. In this dissertation, this risk level was measured using a number of much-cited control variables such as technology platform, therapeutic indication and industry experience. For future reference, additional variables controlling for market potential (e.g. market size) or regulatory risk (e.g. orphan drug designation) should be added to the models in order to fully grasp the commercial risk of a project, next to the technological risk that we capture in our approach. Adding these controls would require more interdisciplinary research to include technology, organisation characteristics and collaboration-specific variables into the equation.

Earlier in the general conclusion, we referred to the fact that further consolidation of the pharmaceutical industry is expected in the short run. This consolidation is the result of a com-

bination of technology commoditisation and the presence of incentives for incumbents to try and develop new therapies on their own. Further research should investigate how this consolidation logic competes with more traditional arguments, stating that more inter-organisational collaborations (disintegration) could help companies to escape from the declining R&D productivity conundrum.

The second part of the dissertation (Chapters 6 and 7) uncovers that multiple networks of the same actors need to be studied simultaneously in order to fully grasp networking dynamics in an industry or region. Network studies appear to benefit from analysing networks formed by heterogeneous groups of organisations. Further research should clarify whether the relationship between innovative activities, board composition and networking activity within the firm stems from a need to minimise coordination costs or whether this is rather caused by effective knowledge flows between different levels within biotechnology organisations and across the organisation's boundaries.

Biography

Prof. dr. Thomas Crispeels is Assistant Professor at the Vrije Universiteit Brussel at the department of Business Technology and Operations (BUTO). His research is situated in the field of Technology & Innovation, with a special focus on technology transfer and collaborative R&D in high-technology industries such as the biotechnology and smart logistics industries. Thomas teaches several courses on technology entrepreneurship and the business economics of high-technology industries to business and engineering students.

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How Internalisation Theory Explains MNE Internationalisation Patterns

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Abstract

Onderzoek naar de toetredingsmodus van bedrijven en hoe die bedrijven internationaal uitbreiden, is de laatste jaren aanzienlijk gegroeid. Recent hebben enkele academici de nood aan verder onderzoek binnen dit domein in vraag gesteld, en drukten zij tevens hun bezorgdheid uit over de huidige richting waarin dit domein evolueert. Om die reden focus ik via mijn onderzoek op wat effectieve vooruitgang kan brengen binnen dit domein, en analyseer ik internationalisatiepatronen in het licht van een hedendaagse visie op moderne, strategische governancepraktijken. Meer specifiek pas ik, gebaseerd op de internalisatietheorie, een 'asset-bundling approach' toe. Ik doe dat in de context van diverse organisatorische omstandigheden, met name van ontwikkelde landen tot ontwikkelingslanden, en in relatie tot actuele fenomenen in het internationaal ondernemen, zoals regionale integratie, 'the global factory', en 'bottom of the pyramid'-markten. Ik onderzoek optimale governancekeuzes in functie van de efficiëntie van de externe markt binnen deze specifieke contextuele settings. Het doel van deze aanpak is aan te tonen dat de conventionele theorie voor de analyse van strategische keuzes in het internationaal ondernemen, namelijk de internalisatietheorie, eenvoudig toepasbaar is (gegeven enkele creatieve uitbreidingen ervan) op deze nieuwe fenomenen. De internalisatietheorie houdt rekening met zowel de kosten als de baten van een internationale expansie.

1. Introduction

Entry mode research has grown substantially during the last four decades. Recently, some scholars have challenged the need for conducting further entry mode studies and have expressed their concerns about the research's current trajectory (e.g., Shaver, 2013). I therefore focus on what could constitute a genuine advance in entry mode research and investigate internationalisation patterns in the context of modern strategic governance thinking. More specifically, I apply an asset-bundling approach, embodied in the internalisation theory perspective, in various organisational circumstances, from developed country to developing country MNEs, and in relation to focal, contemporary areas of interest in international business (IB), such as regional integration, the global factory, and bottom of the pyramid (BOP) markets. I explore optimal governance choices as a function of external market efficiency in these particular context-

ual settings. The purpose of this approach is to expand on the current boundaries of internalisation theory and thus to demonstrate that sound, mainstream IB theory, namely internalisation theory, is easily applicable (subject to some creative extensions) to a broad range of business phenomena. This theory has strong predictive capacity since it is particularly well equipped to measure the overall costs and value creation when entering and operating in foreign markets.

Following recent debates on MNE foreign expansion, it has been suggested that entry mode scholars should refrain from focusing solely on single home-host country studies (e.g., Hennart & Slangen, 2015; Shaver, 2013) and from adopting exclusively MNE-centric approaches (Chen, 2010; Hennart, 2009). Instead, they should design studies in explicit, 'new empirical contexts' (Shaver, 2013) that introduce issue-specific variables of the institutional environment and hence allow, 'to see

whether prior findings still hold' (Brouthers, 2013: 17). Importantly, irrespective of the context, the analysis of MNE governance choices should be based on asset bundling (Hennart, 2009).

This dissertation has built upon this debate and investigated strategic governance choices in various contextual settings and has applied internalisation theory as the prevalent, mainstream IB theory to be considered when evaluating economic opportunities available to firms in foreign markets. Each essay in this dissertation contributes scholarly value added to the very diverse spectrum of internalisation theory themes and thus helps answering the question as to why this theory, as a 'complete' theory of the firm, is particularly well equipped to explore strategic governance decisions as well as the progress from a focus on the liability of foreignness to a focus on institutional equivalence, ultimately supporting the important linkage between research and managerial relevance.

For example, the application of TCE/internalisation theory embodies explicit behavioural assumptions building upon the concepts of bounded rationality and bounded reliability (Verbeke & Greidanus, 2009) and is therefore superior to the RBV, which has little predictive capacity, as a result of its lack of behavioural foundations. In addition, internalisation theory does not only provide guidance on allocating firm resources (in line with the RBV), but also assesses the optimal contractual structure through which particular types of resources should be governed. TCE/internalisation theory also provides a rationale for the boundaries of the firm and contributes to the understanding of how firms manage the interface with actors outside of their boundaries (Verbeke & Kano, 2012). Thus, through ap-

“Entry mode decision makers should adopt a broader view on MNE governance than proposed by the mainstream MNE-centric entry mode choice literature.”

plying an internalisation theory lens, this dissertation demonstrates the broad applicability of this leading IB theory to a wide range of contexts and ultimately provides superior predictions as compared to several other conceptual frameworks, e.g., as found in the 'global factory' and 'BOP' literatures. As highlighted in Table 1, each essay includes a distinct contribution to IB research on TCE/internalisation theory and foreign market expansion strategies, thereby attempting to answer one major research question:

1. What does the asset-bundling approach, as an expression of new internalisation theory, imply and how does this approach inform managerial practice in the realm of international strategy?
2. How do the predictions of internalisation theory on operating mode strategy change as a function of regional integration, and more specifically, how do MNEs from a 'regional insider' economy adapt their operating mode strategies as a function of regional integration in the European Monetary Union?
3. How do the predictions of internalisation theory on establishment mode choice change as a function of regional integration, and more specifically, how do EMNEs as 'regional economy outsiders' adapt their establishment mode choice as a function of regional integration in Europe?
4. To what extent is the 'global factory' concept compatible with internalisation theory predictions, and more specifically, how should MNEs decide on their ownership strategy and optimal governance of specific activities in the value chain?
5. How does internalisation theory inform managerial thinking on whether and how to expand to BOP markets?

Table 1. Structure of the dissertation and contribution of each essay

	Content	Research design	Value added
Essay 1	Analysis of entry mode choices as the bundling of firm and local assets	Conceptual: Critical assessment of the asset-bundling approach in the realm of international strategy	<ul style="list-style-type: none"> • Assessment of the MNE-centric approach versus the asset-bundling approach • Identification of implications for international strategic management • Introduction of the linkage between the double diamond framework and the asset-bundling approach
Essay 2	Study on the impact of regional integration on internationalisation patterns of insider MNEs	Quantitative: Multilevel logistic regression (783 international investments by 48 Belgian MNEs)	<ul style="list-style-type: none"> • Assessment of the linkage between TCE as well as related internalisation-theory based explanations and regional integration • Empirical analysis of the operating mode strategies of insider MNEs as a function of regional integration • Evaluation of the importance of regional integration on MNE strategies

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	Content	Research design	Value added
Essay 3	Study on the impact of regional integration on internationalisation patterns of outsider MNEs	Quantitative: Multilevel logistic regression (923 European investments by 69 EMNEs from the BRIC countries)	<ul style="list-style-type: none"> • Empirical analysis of the establishment mode strategies of outsider EMNEs as a function of regional integration • Evaluation of the importance of regional integration on internationalisation patterns • Categorisation of information and information dynamics in international expansion
Essay 4	Conceptualisation of the 'global factory' paradigm using an internalisation theory lens	Conceptual: Critical assessment of the global factory paradigm	<ul style="list-style-type: none"> • Introduction of internalisation theory as guidance for MNE strategic decision making in the context of a global factory network • Definition of a global factory ownership strategy • Proposition of a 'decision dynamics' matrix to assess the most optimal governance approach
Essay 5	Analysis of conventional BOP thinking using an internalisation theory lens	Conceptual: Critical assessment of the alleged attractiveness of BOP markets	<ul style="list-style-type: none"> • Linkage between IB research and sustainable development • Application of an asset-bundling approach to BOP market entry • Assessment of the transferability to – and across – BOP markets

2. Main Results

Essay 1 explores entry mode choices as the bundling of firm-specific assets and complementary assets in the host country, and critically assesses the MNE-centric versus the asset-bundling approach in the realm of international strategy, building upon Hennart's (1988, 2009) fundamental scholarly contributions.

At least since Hymer's (1960) dissertation work, researchers have tried to answer the question as to how firms do business across borders. In this context, internalisation theory, a joint transaction cost economics (TCE) and resource-based view (RBV) theory of the firm (Verbeke & Greidanus, 2012), can contribute in a substantive fashion to assessing MNE entry mode choices (Buckley & Casson, 1976; Hennart, 1982; Rugman, 1981). As the most influential IB theory to date, it seeks to explain why MNEs, which, according to Hennart (2013: 8-9), arise 'from a comparison made by firm decision-makers between the relative efficiency of organizing interdependencies in markets and in firms', exist. When internationalising to foreign markets, firms have to engage in the bundling of two sets of resources: first, proprietary non-location-bound firm-specific advantages (FSAs) including assets in the form of technological competence relative to competitors, and second, country-specific advantages (CSAs) of host countries including natural resources, a local market for the incoming firm's products, and regulatory transparency and openness (Dunning, 1988; Dunning & Lundan, 2008; Hennart, 2009; Rugman & Verbeke, 1990; Verbeke, 2013). The configuration and relative strength of host environment CSAs influence a firm's choice on how to serve international markets and thus

affect the initial entry mode choice of each operation and the subsequent evolution thereof.

Assuming the MNE's deployment of non-location-bound FSAs as a precondition for international expansion, this essay creates a linkage between the 'double diamond' framework (Moon, Rugman & Verbeke, 1998) and the asset-bundling approach (Hennart, 2009). In contrast to Porter's (1990) single diamond model that largely ignores the relevance of host CSAs, these two models characterise host CSAs as indispensable parameters in the internationalisation of MNEs. Essay 1 thereby contributes to our understanding of MNE mode selection as a function of the relative efficiency of using external markets vis-à-vis internalisation and investigates international mode choice in the context of prior studies on the competitive advantage of nations (for further information on Essay 1, see Verbeke & Hillemann, 2013).

Regional integration provides attractive internal expansion opportunities for both 'insider' as well as 'outsider' MNEs. Yet, Essays 2 and 3 are among the first studies that consider the level of regional integration as an important explanatory variable for governance choices. Using the example of the European Monetary Union (EMU), representing the most advanced regional integration pact in the world, the two essays seek to contribute to the literature on regionalisation that has proposed a strong relationship between the MNE's overall costs associated with the expansion to foreign markets and the degree of regionalisation between the home country and the respective host markets (Banalieva, Jiang, & Santoro, 2010; Benito, Grøgaard, & Narula, 2003; Hejazi, 2007; Rugman & Verbeke, 2004). In this context, past research has assessed the effect of regional inte-

gration in Europe on shared equity modes (e.g., Ramsay, Kay, & Hennart, 2001) and cross-border M&As (e.g., Moschieri, Ragozzino, & Campa, 2014), but these analyses did neither consider the varying levels of regional integration nor the different entry, establishment or operating mode choices.

Essays 2 and 3, as a set, provide a two-sided perspective: Essay 2 analyses samples from insider MNEs entering foreign markets, both EMU and non-EMU ones, while Essay 3 assesses outsider MNEs from emerging economies entering Europe. The use of these two different samples intended to develop new insights on (1) entry and operating mode choices within regionally integrated home and host countries as well as initial host and subsequent host countries as entry targets, and (2) potential similarities of international investment decisions between insider and outsider MNEs.

Essay 2 provides new insights on the impact of regional integration on MNE operating mode choices by analysing Belgian MNE operating modes in foreign markets, within the EMU versus within the European Union's (EU) 'periphery' (i.e., EU countries outside the EMU) versus outside of the EU. The study

“Location advantages only constitute “real” advantages if the MNE can exploit them in one or multiple properly functioning markets, thus allowing effective asset bundling.”

offers a window on the dynamics of regional integration and sheds light on the increasing relevance of regionalisation. It considers traditional explanatory variables for governance mode strategies from TCE/internalisation theory (e.g., R&D and advertising intensity as proxies for asset specificity), and combines these with variables capturing the effect on insider MNE operating mode choices of the level of regional integration between the MNE's home country and the respective host countries on two conventional drivers, namely the national institutional context and cultural distance. In line with Meyer, Estrin, Bhaumik, & Peng (2009), I assume that cultural and institutional context variables can directly affect operating mode selection. However, I add region-specific parameters to the analysis and hypothesise that regional integration fosters a shift in the operating mode choice between wholly owned subsidiaries (WOS) and joint ventures when internationalising within the home region versus internationalising beyond this region. Building upon a sample of 783 foreign operations by 48 insider MNEs from Belgium, the multilevel logistic regression results demonstrate that regional integration, as exemplified by the EMU, has significantly changed the effect of national institutional risk on MNE internationalisation.

Figure 1. Effect of institutional risks on operating mode strategies at different levels of regional integration

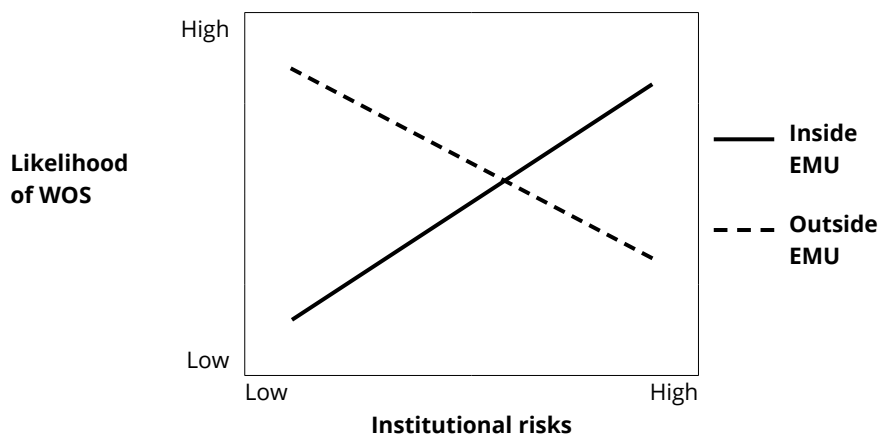


Figure 1 illustrates that insider MNEs show different decision patterns as a function of the location of the operations within an EMU member state versus non-EMU member states (i.e., 'disordinal' interaction). However, these findings only hold for national institutional risk and international operations that were established in the post-EMU period (after 1 January 2002). The host country's degree of regional integration does not have a statistically significant impact on the relation between cultural distance and MNE operating mode strategies.

Essay 3 extends the above findings to the context of emerging economy MNEs (EMNEs) from Brazil, Russia, India and China (BRIC). EMNEs from the BRIC countries represent a diverse but highly interesting set of 'outsider' MNEs, i.e., firms originating from home countries outside the EU, since this set of young, rather inexperienced firms has for the most part started its European expansion during the last two decades, and hence comprehensive information on initial European affiliates and their progress was largely available.

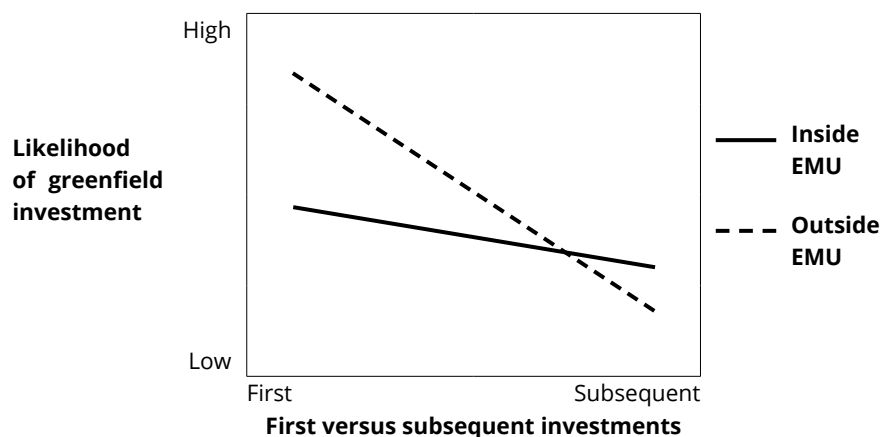
How Internalisation Theory Explains MNE Internationalisation Patterns

I assess how these firms have adapted their establishment mode strategies as a function of regional integration in the EMU and EU respectively. Figure 2 shows that EMNEs have different decision patterns for initial investments in Europe depending on the host country's membership in the EMU. EMNEs are more likely to choose acquisitions as the first European establishment mode when the host country is part of the EMU. By contrast, they have a stronger preference for greenfield investments as a first establishment when initially entering Europe through non-EMU countries. Once having established a first European operation, EMNEs tend to pay less attention to the level of regional integration across countries

when deciding on the establishment mode of subsequent investments. This is shown by the close alignment of both slopes for subsequent investments.

In addition, our research indicates that traditional key determinants of entry mode choice, such as conventional cultural and institutional distance, become less relevant to EMNE FDI decisions with increasing regional integration. Instead, corporate decision makers should focus on the 'information dynamics' associated with FDI and distinguish between first and subsequent foreign expansion moves as well as information segments available, internally and externally to the firm.

Figure 2. Regional integration as an important determinant for a first establishment decision when initially entering Europe



The empirical studies in Essays 2 and 3 make two key managerial contributions. *First*, in the case of far-reaching regional integration, this research supports the view of increasing insufficiency of widely accepted explanatory variables in operating mode choices for 'insider' as well as 'outsider' MNEs. Although further studies on the subject matter are needed, (E)MNE managers should move beyond cultural and institutional context variables that were traditionally considered critical to MNE decision making when expanding across borders and attach more importance to additional layers of institutions, regulations and laws in supranational regions that operate as a single administrative unit (Narula, 2014). *Second*, rather than focusing solely on resources and capabilities that were conventionally considered as 'location-specific', and available only in a particular, potential host country, managers should also reflect on the level of regional integration for each foreign market bearing potential as a future entry target. Regional integration *de facto* fosters the permeability of national borders of host countries and alters MNE internationalisation determinants supposedly instrumental to 'optimal' governance mode choices.

Essay 4 revisits the global factory paradigm (Buckley, 2011) and creates a direct link with the ownership choice and location decision discussed in the two preceding essays. Introducing internalisation theory as guiding tool for MNE strategic decision making in the context of a global factory network, the essay suggests a global factory ownership strategy and proposes a conceptual 'decision dynamics' matrix that results in a simple but effective managerial tool to assess the most optimal governance approach. Following internalisation theory's logic, the global factory's ownership strategy poses a 'real' optimisation challenge in which MNEs have to efficiently bundle firm resources and complementary assets of third partners in international markets, who might contribute competences in cost-efficient manufacturing or in downstream activities such as marketing and distribution (Hennart, 2009; Verbeke & Hillemann, 2013). In order to manage adequately this optimisation challenge in global factories, senior managers should focus on the efficiency of markets in which both firm resources and complementary assets are transacted. Depending on the tradability of the two different types of assets, they are then able

to assess the most suitable ownership strategy and ultimately select the referring operating mode. Table 2 provides a 2x2 matrix illustrating the global factory ownership strategy as a

function of the market efficiency of firm resources in the form of global factory-specific advantages as well as complementary assets of potential partners in the international expansion.

Table 2. Global factory ownership strategy

		Global factory-specific advantages (GFSAs)	
		Efficient market	Inefficient market
Complementary assets/ capabilities held by third party	Efficient market	1. Contractual agreements	3. Global factory subsidiaries
	Inefficient market	2. Wholly owned third-party subsidiaries	4. Strategic partnerships

Source: Hillemann & Verbeke (2014a), based on Grøgaard & Verbeke (2012) and Hennart (2009)

Global factories require senior managers to make ownership decisions as well as location decisions for each fine-sliced economic activity. In doing so, they have to consider the current ownership status and location of individual fine-sliced economic activities and balance this status against alternative combinations with respect to ownership and location, following the logic of the decision dynamics matrix as shown in Figure 3. The horizontal axis of Figure 3 defines the degree of requisite change in ownership status ranging from low to high. Here, senior managers have to decide for each fine-sliced activity whether a change in ownership is required, building upon an assessment of the net benefits or costs associated with the status quo. The vertical axis of Figure 3 defines the degree of requisite change in location ranging from low to high. In this case, senior managers have to deliberate on the location of each fine-sliced activity and determine whether the current location as status quo requires a change in location (examples for each of the four quadrants and further explanation can be found in Hillemann & Verbeke, 2014a).

Figure 3. Decision dynamics in the global factory: Requisite changes in ownership status and location for each fine-sliced activity

Requisite change in location	High	1	3
	Low	2	4
		Low	High
		Requisite change in ownership status	

Source: Hillemann & Verbeke (2014a)

The essay’s critical assessment of the global factory paradigm reveals its lack of predictive capacity as compared to mainstream IB theory. From a comparative institutional perspective, each of the global factory’s ‘strengths’ can, in particular circumstances, even be interpreted as a ‘weakness’. Essay 4 thus provides useful guidance for corporate decision makers who wish to adopt

“Regional integration de facto fosters the permeability of national borders of host countries and alters MNE internationalisation determinants supposedly instrumental to “optimal” governance mode choices.”

both internalisation and external contracting in geographically dispersed host countries, depending upon the nature of the fine-sliced activity involved and the requisite complementary resources. The essay further suggests that MNE management should scrutinise the role of the firm’s head office as a so-called ‘controlling intelligence’ (Yamin, 2011), especially if its international subsidiaries have strong subsidiary-specific advantages (Rugman & Verbeke, 2001). In the latter case, MNEs should reasonably discharge head offices from the authority to decide ‘on the outsourcing and offshoring of fine-sliced activities, as this could be detrimental to the MNE’s survival, profitability and growth prospects’ (Verbeke, Van Tulder & Lundan, 2014: 6).

Essay 5 applies an internalisation theory lens in the context of the BOP (e.g., Prahalad & Hart, 1999) and examines the complexity that MNEs from developed countries need to overcome when internationalising to BOP markets and engaging with BOP actors. When expanding internationally to BOP markets, MNEs have to bundle firm resources and complementary assets held by third parties in these markets to succeed. Following Hennart (2009), MNEs can in principle use three different markets to access complementary assets. Table 3 lists these three markets and describes how MNEs bundle their assets and which form of contracting they can use in each of the respective markets.

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Table 3. Interactions between MNEs from developed countries and BOP actors in three markets (illustrative)

Markets	Asset bundling at the BOP	BOP contracts
Market for asset services	MNE purchases the usage of knowledge from a BOP actor	MNE signs service contracts, such as labour contracts, manufacturing contracts, etc. with BOP actors
Market for assets	MNE purchases BOP actors' assets and bundles these with extant MNE know-how	MNE's local operation purchases land, buildings, machines, proprietary knowledge, etc. from BOP actors
Market for firms	MNE purchases a firm owned and controlled by a BOP actor	MNE engages in a merger or acquisition of a BOP actor

Source: Hillemann & Verbeke (2014b), inspired by Hennart (2009)

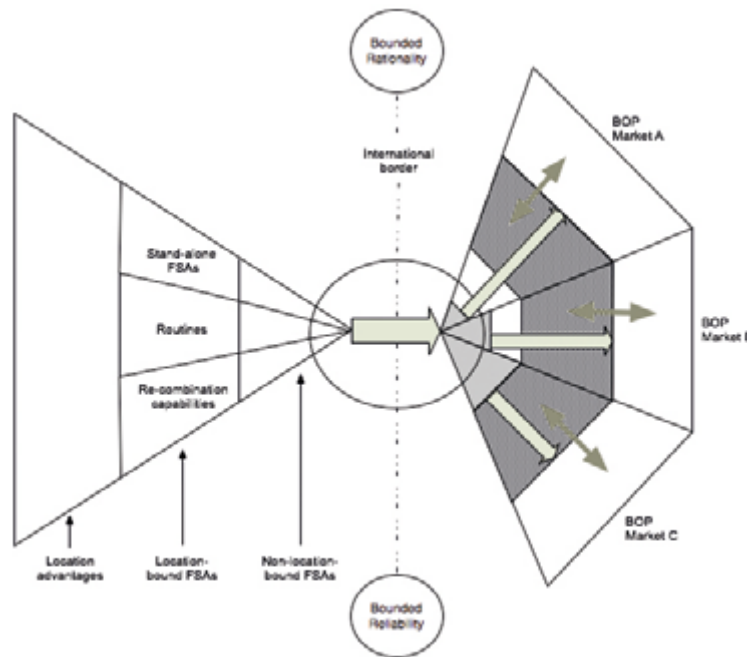
The essay introduces mainstream IB theory, namely internalisation theory, as well as bounded rationality and bounded reliability as two underlying concepts, to provide managerial guidance to MNEs, when involved in processes of internationalisation to BOP markets. By extending Verbeke's (2013) international expansion framework to the BOP markets and adapting Hennart's (2009) asset-bundling approach, Essay 5 further provides an initial attempt to analyse the 'real' attractiveness of BOP markets and to discuss the transferability of extant capabilities to and across BOP markets (Figure 4). As shown on the left-hand side of Figure 4, MNEs originating from developed home countries build their reservoir of FSA bundles on the basis of the location advantages in their respective home country. The majority of FSA bundles is typically location-bound, thus implying their deployment in the MNE's home country only. These FSA bundles can take the form of stand-alone FSAs, routines, and resource recombination capabilities. Routines represent 'stable patterns of decisions and actions that coordinate the productive use of resources, and thereby generate value' (Verbeke, 2013: 6). Recombination capabilities define the firm's competence to develop novel FSAs building upon present FSA bundles and newly accessed resources, allowing the firm to diversify in new, domestic product market areas. In order to become an MNE, a firm needs to have at least a subset of its FSAs with non-location-bound characteristics, providing the firm with the ability to transfer, deploy and exploit this subset successfully across host countries.

Internationalisation to foreign countries can trigger new challenges in terms of bounded rationality ('scarcity of mind') and bounded reliability ('scarcity of effort to make good on open-ended promises'), in particular with an increase in the cultural, economic, and institutional distance between the home country and the host country (Verbeke, 2013: 52, 57). In

this case, MNEs entering BOP markets need to engage in the efficient combination of their non-location-bound FSA bundles (whereby the relevant components in the FSA bundles may vary from one foreign market to another) with coveted location advantages in BOP markets. The transferred non-location-bound FSAs have to be complemented with new, location-bound FSAs, to be created or acquired (as shown by the shaded areas on the right-hand side of Figure 4).

The main contribution of Figure 4 is that it visualises the great differences among BOP environments to which MNEs have to adapt. The bundles of non-location-bound FSAs to be required for the international expansion as well as the location-bound FSAs to be accessed in the local host market can differ widely among BOP countries. This is indicated by the different sizes of the triangles and the arrows linking the MNE's non-location-bound FSA bundles with the location advantages in the BOP markets, thus implying a difference in need in the development of location-bound FSAs in each BOP market (shaded areas on the right-hand side of Figure 4). MNEs might generally prefer to achieve commonality in the transfer of requisite FSA bundles across BOP markets, but as Figure 4 suggests, this case may not necessarily be realistic. Instead, they have to combine different sets of non-location-bound FSAs to be transferred from the home country to BOP countries. In addition, the location advantages in individual BOP markets to be accessed by the MNE may also differ, thus requiring the MNE to develop different sets of location-bound FSAs for each BOP market individually. As a result, MNEs have to coordinate a wide spectrum of different activities (that may even include the provision of public goods, see also Hillemann & Verbeke, 2015) across their internal network while nurturing the linkages among subsidiaries across host countries, of which BOP markets in which MNEs actively operate are part (as reflected by the circle in Figure 4).

Figure 4. An extension of Verbeke's (2013) international expansion framework to BOP markets



Source: Hillemann & Verbeke (2014b), based on Verbeke (2013)

When internationalising to one BOP market and developing new FSAs in this market, the transferability of these novel resources to other BOP markets is highly uncertain. The entry into any BOP market requires the development or acquisition of idiosyncratic location-bound FSA bundles. Figure 4 acknowledges this necessity in the middle areas of BOP markets on the right-hand side. It further shows a double-headed arrow linking the MNE's newly developed location-bound FSAs in one BOP market and the location advantages in this country. This arrow underlines the importance of aligning FSA bundles of both location-bound and non-location-bound nature with location advantages in order to succeed in the international expansion to BOP markets. The analysis shows that an international expansion to BOP markets, just as to any other host market, entails MNEs engaging in the deployment of non-location-bound FSAs as a prerequisite for successful international expansion to these markets (Verbeke, 2013). The essay thus demonstrates that comparative institutional analysis of host country location factors provides substantially more insight than the extant research to make BOP market penetration work (for further information, see Hillemann & Verbeke, 2014b) and it has already been described as a 'promising new link between IB research and sustainable development' (Van Tulder, Verbeke, & Strange, 2014: 12).

3. Conclusions

From a managerial perspective, the findings of the dissertation suggest that entry mode decision makers should hence adopt a broader view on MNE governance than proposed by the mainstream MNE-centric entry mode choice literature. More specifically, they should decide on the MNE's operations based on the host country's overall relative efficiency across multiple relevant markets, since this efficiency ultimately affects the likelihood of success of the MNE's host country activities. In this context, it is critical for managers to understand the importance of location advantages for MNE internationalisation since they only constitute 'real' advantages if the MNE can exploit them in one or multiple properly functioning markets, thus allowing effective asset bundling.

The contributions of this dissertation also point to promising paths for future research projects. These include regional integration analyses focusing on the use of longitudinal data, empirical studies focusing on the relative benefits of chosen governance modes as compared to optimal governance mode choices and the further development of internalisation theory to contemporary business phenomena (e.g., international new ventures, see for example Verbeke, Zargazadeh, & Osiyevskyy,

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2014) as well as the concepts of bounded reliability and bounded rationality.

The contributions of this dissertation as well as the novel ideas for academic research avenues highlight the clear need for more research in this field that has recently been challenged by Shaver (2013). I therefore agree wholeheartedly with Hennart & Slangen's (2015: 114) affirmative response to Shaver's fundamental, yet provocative question: 'Yes, we really do need more entry mode studies!'

My hope is for this dissertation to contribute to more effective international strategic decision making by senior MNE managers and to the continuous evaluation of the status of international operations, in terms of optimal governance mode and location choice.

Biography

Jenny Hillemann is a postdoctoral fellow at the Vrije Universiteit Brussel, Belgium, from which she received a PhD in Business Economics in December 2014. She is John H. Dunning visiting fellow 2015/16 at the Henley Business School, University of Reading, UK, and guest lecturer at the University of Antwerp, Belgium. Her research includes the managerial analysis of multinational enterprise strategy and the broader governance challenges facing international firms. To date, her research contributions have been published as three edited book chapters in well-known book series with two further articles accepted in *International Business Review* and *Multinational Business Review*. She has been awarded the 2014 Academy of International Business/Sheth Dissertation Proposal Award and was nominated for the 2015 Academy of Management D'Amore-McKim School of Business, Northeastern University Award for the Best Dissertation in International Management and for the 2015 International Theme Committee & Emerald Best International Dissertation Award at the Academy of Management.

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De rol van de externe accountant binnen de Vlaamse micro-onderneming

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ABSTRACT

De traditionele rol van de externe accountant en de standaarddiensten die eruit voortvloeien, komen steeds meer onder druk te staan. Diverse evoluties hebben ervoor gezorgd dat het accountingberoep in zekere zin onder vuur komt te liggen. In dit artikel willen we ingaan op de rol die voor de externe accountant is weggelegd bij Vlaamse micro-ondernemingen. Daartoe maken we gebruik van unieke informatie, verkregen van 401 zaakvoerders van Vlaamse micro-ondernemingen. Uit onze resultaten blijkt alvast dat de zaakvoerders een toegevoegde waarde ervaren ten aanzien van de standaarddiensten, maar tegelijkertijd wordt de nood aan aanvullende informatie aangehaald. Ook op de markt van adviserende diensten is de externe accountant de belangrijkste bron van advies. Hoewel die diensten over het algemeen positief worden gepercipieerd, is dat toch nadrukkelijker het geval voor het core-businessadvies van de externe accountant. Veel zaakvoerders ervaren ook een sterke vertrouwensrelatie met hun externe accountant, maar een verband met de vraag naar adviserende diensten kunnen we in dit artikel vooralsnog niet aantonen.

1. INLEIDING

De afgelopen decennia heeft het accountingberoep veranderingen gekend op vele vlakken, en dat ten gevolge van diverse evoluties. Ten eerste zien we dat de opkomst van nieuwe informatietechnologieën, en meer bepaald het gebruik van de computer en het internet, ervoor hebben gezorgd dat de boekhoudkundige gegevensverwerking sneller en tevens kostenefficiënter is geworden (Elliott & Jacobson, 2002). Het logische gevolg daarvan is dat er voor de externe accountant van kleine en middelgrote ondernemingen (kmo's), veel tijd is vrijgekomen die normaal besteed werd aan het calculeren en registreren van de financiële gegevens (Marriott & Marriott, 2000; Nandran, 2010). Ten tweede zien we dat er een stijgende informatiebehoefte is bij kmo-zaakvoerders (Greenwood, Suddaby, & Hinings, 2002). Men is steeds meer geïnteresseerd in informatie die verder gaat dan de standaard wettelijk voorgeschreven vereisten. Marriott & Marriott (2000) en Nandran (2010) merken hieromtrent op dat de kmo-zaakvoerder behoefte heeft aan een gebruiksvriendelijke

re weergave van de financiële resultaten van zijn/haar bedrijf. Ten derde is er een Europese trend van administratieve vereenvoudiging en deregulering merkbaar op het vlak van micro-entiteiten (Commissie, 2007). Ook buiten Europa manifesteert die tendens zich (Blackburn, Carey, & Tanewski, 2010).

Voormelde evoluties hebben ervoor gezorgd dat de externe accountant¹ zich genooddaakt zag zijn portfolio van diensten uit te breiden (Blackburn *et al.*, 2010). Zijn takenpakket bevat tegenwoordig, naast het registreren en rapporteren van de financiële gegevens, ook allerhande adviserende diensten die hij levert aan zijn cliënteel. Het beroep dat eerst werd aanzien als een dat enkel strikt boekhoudkundige taken vervult, is geëvolueerd tot een quasi-consultingservice (Barbera & Hasso, 2013). Om die

¹ Het is evident dat de externe accountant zowel van het mannelijke als van het vrouwelijke geslacht kan zijn. Om echter te vermijden dat er telkens met hij/zij en zijn/haar verwezen moet worden, wordt in dit artikel steeds het oorspronkelijke genus van het woord accountant gebruikt, zijnde mannelijk.

transitie succesvol te maken, zal de accountant zich moeten ontdoen van het 'beancounter'-imago en het stereotype dat de accountant schetst als zijnde een introverte en saaie professional (Aranya, Meir, & Bar-Ilan, 1978; Matthews, 2001; Nandran, 2010).

In het verleden hebben verschillende internationale onderzoekers zich gebogen over het aanbod van en de vraag naar de diensten van de accountant binnen kmo's. Op Belgisch/Vlaams niveau is onderzoek hieromtrent eerder schaars. Dat is opmerkelijk aangezien Vlaanderen het kmo-landschap bij uitstek is (Unizo, UCM & Graydon, 2014). Everaert, Sarens en Rommel (2007) merkten die schaarste ook op, en namen de sourcing-strategie van accountingdiensten bij Belgische kmo's onder de loep. Zoals verwacht, blijken kmo's niet zomaar kleinschalige versies te zijn van grote bedrijven, maar specifieke karakteristieken te hebben, zodat ze gebruikmaken van andere methodes om beslissingen te nemen en die te implementeren.

In dit artikel willen we, gebruikmakend van de bestaande literatuur, een beeld schetsen van het aanbod van en de vraag naar die diensten op het niveau van de kleinste Vlaamse kmo's, met name de micro-ondernemingen². Met het oog op de aanstaande wetswijziging en de invoering van het concept micro-onderneming in het Belgische recht, alsook het grote aandeel van deze groep ondernemingen binnen de Belgische kmo-populatie, lijkt het belang van deze focus zeker gerechtvaardigd. Onze centrale onderzoeksvraag luidt als volgt: *'Wat is de huidige stand van zaken met betrekking tot de diensten die de externe accountant aanbiedt aan Vlaamse micro-ondernemingen en de relatie van de externe accountant met de zaakvoerder?'* Onder meer willen we te weten komen wat de accountant tegenwoordig precies doet voor deze groep van micro-ondernemingen, hoe hij zich daarbij gepositioneerd heeft in de markt van adviesdiensten en hoe de relatie met zijn klanten een invloed kan hebben.

Onze resultaten kunnen van nut zijn voor eenieder die in contact komt met accountancy in Vlaanderen. Daarbij kan er enerzijds worden gedacht aan de accountants en boekhouders zelf. Zij kunnen gebaat zijn met informatie over de vraag naar accounting- en adviserende diensten en derhalve een beter inzicht krijgen in de markt van die diensten. Ook een blik op het belang van de relatie tussen de zaakvoerder en accountant kan voor hen zeer informatief zijn. Anderzijds is er ook een moge-

lijke toegevoegde waarde voor de Vlaamse kmo-zaakvoerders. De resultaten uit het empirische deel kunnen hen een interessant inzicht verschaffen in de huidige stand van zaken en bijgevolg ook de situatie bij hun concurrenten. De manier waarop de doorsneezaakvoerder van een Vlaamse micro-onderneming tegenwoordig omgaat met de externe accountant en zijn diensten is een boeiend gegeven. Ten slotte kunnen ook regelgevende instanties zoals de overheid of de verschillende beroepsorganisaties mogelijk bruikbare informatie halen uit dit artikel.

Hoe is dit artikel opgebouwd?

We starten met een literatuurstudie en de formulering van hypothesen, en dat achtereenvolgens voor de twee soorten diensten waarop de micro-ondernemer een beroep kan doen bij zijn externe accountant. In sectie 2 wordt gefocust op de traditionele of standaarddiensten en in sectie 3 komen de bijkomende adviserende diensten die de externe accountant aanbiedt aan bod. We zien daarbij de externe accountant als een partij die de financiële gegevens enkel registreert en vervolgens de jaarrekening opstelt en neerlegt. De auditfunctie wordt hier dus buiten beschouwing gelaten. We hebben het bijgevolg voornamelijk over de leden van het IAB en het BIBF.

Merk op dat het bij het interpreteren van de internationale onderzoeken belangrijk is om de verschillende invullingen van bepaalde concepten in het achterhoofd te houden. De invulling van de term 'externe accountant' en de term 'kmo' zal sterk verschillen al naargelang het land waarop het onderzoek betrekking heeft. Het zou ons echter te ver leiden om daar uitgebreid op in te gaan. Voor meer informatie rond de bestaande literatuur, verwijzen we dan ook naar de betreffende bronnen.

Waar we wel uitgebreid op ingaan, zijn de empirische resultaten van ons onderzoek. Meer specifiek kan worden gebruikgemaakt van 401 ingevulde enquêtes. In sectie 4 gaan we in op de dataverzameling en de resulterende steekproef. Sectie 5 en sectie 6 bespreken de resultaten die daaruit voortvloeien. Terwijl vele resultaten in de lijn der verwachting liggen, zijn andere resultaten toch eerder verrassend. Sectie 7 rondt het geheel af met een bondig besluit.

2. DE STANDAARDDIENSTEN

2.1. Inhoud

De zogenaamde standaarddiensten verschillen op basis van welke definitie men gebruikt voor de externe accountant. In de Belgische context worden de standaarddiensten van de accoun-

² Micro-ondernemingen kunnen worden omschreven als ondernemingen die op balansdatum ten minste twee van de volgende drie criteria niet overschrijden: 1) jaargemiddeld personeelsbestand van maximaal 10 werknemers; 2) jaaromzet exclusief btw van maximaal € 700.000; 3) balanstotaal van maximaal € 350.000.

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tant geacht minder uitgebreid te zijn, en gebruiken we niet de brede definitie, die eveneens de auditfunctie omvat (zoals bijvoorbeeld Matthews, 2001; Blackburn *et al.*, 2010; Carey, Simnett, & Tanewski, 2005). Wij nemen integraal de opsomming van de traditionele accountingdiensten uit de jaarlijkse boekhoudcyclus over uit het handboek van Jones (2002), zoals ook in het onderzoek van Everaert *et al.* (2007) werd gedaan. Specifiek gaat het over de volgende zes diensten:

- het registreren van facturen en financiële verrichtingen;
- het opstellen van tussentijdse resultatenrekeningen;
- de eindejaarsverrichtingen en jaarafsluiting;
- het opstellen van de jaarrekening (inclusief jaarverslag);
- de btw-aangifte;
- de vennootschapsbelastingaangifte.

Volgens de resultaten van Everaert *et al.* (2007) besteden Belgische kmo's 35 % van die accountingdiensten uit. Het ingeven van facturen wordt het minst uitbesteed en het bepalen van de vennootschapsbelasting het meest. In het algemeen gebruikt 53 % van de bedrijven een selectieve outsourcingstrategie. De totale insourcingstrategie wordt verkozen door 35 % van de bedrijven en de totale outsourcingstrategie door de resterende 12 % van de bedrijven.

2.2. De perceptie van de zaakvoerder

De standaarddiensten die de externe accountant aanbiedt, zoals bijvoorbeeld het opstellen van de jaarrekening en het invullen van de vennootschapsbelastingaangifte, worden door de kmo-zaakvoerders mogelijkwerwijs ervaren als een noodzakelijke kost met weinig bruikbare gegevens als resultaat. Ze vloeien voort uit een verplichting die hun wordt opgelegd en het is maar de vraag of ze een toegevoegde waarde vormen voor het bedrijf zelf. Templeman & Wootton (1987 in Marriott & Marriott, 2000) besluiten dat de vraag naar standaarddiensten voornamelijk gedreven is door de wettelijke vereiste. De bekomen informatie biedt verder weinig toegevoegde waarde. Marriott & Marriott (2000) komen tot hetzelfde resultaat, namelijk dat de kmo-zaakvoerders de diensten eerder zien als het voldoen aan behoeften en vereisten van derden, en dat de informatie niet meteen bruikbaar is voor de kmo-zaakvoerder zelf. Ook Blackburn *et al.* (2010) concluderen dat de traditionele compliance-diensten over het algemeen worden gezien als een wettelijke verplichting waar men niets aan kan veranderen. De diensten vormen een onvermijdelijke en tevens hoge kost die weinig of geen toegevoegde waarde vertegenwoordigt voor het bedrijf.

“De externe accountant is dus de voornaamste adviseur voor onze Vlaamse micro-ondernemingen en scoort beduidend hoger dan eender welke andere aanbieder van advies.”

Volgens Keasey & Short (1990) daarentegen ervaart slechts de helft van de kmo-zaakvoerders het opstellen van een jaarrekening als een administratieve last, terwijl de andere helft eerder oordeelt dat de bekomen informatie wel degelijk een voordeel is bij het managen van het bedrijf. Die laatste conclusie werd eveneens gemaakt door Cameron (1995, in Blackburn *et al.*, 2010). Hij stelt in zijn onderzoek dat de standaarddiensten en de informatie wel degelijk als kosteneffectief en ‘waar voor je geld’ worden gezien door kmo-zaakvoerders. Tabel 1 zet die informatie op een rijtje.

Tabel 1: Overzicht van literatuur over perceptie van standaarddiensten

Auteur(s)	Conclusie	Land	Jaartal
Templeman & Wootton	Wettelijke vereiste, weinig toegevoegde waarde, men gebruikt de resultatenrekening verder niet	Verenigd Koninkrijk	1987
Keasey & Short	50 %: administratieve last 50 %: informatievoordeel bij het managen van het bedrijf	Verenigd Koninkrijk	1990
Cameron	Kosteneffectief en waar voor je geld	Nieuw-Zeeland	1995
Marriott & Marriott	Voldoen aan vereiste, niet zo zeer bruikbare informatie voor de kmo-zaakvoerder. 2/3 weet niet wat de accountant precies doet	Verenigd Koninkrijk	2000
Blackburn, Carey, & Tanewski	Onvermijdelijke en hoge kost, weinig of geen toegevoegde waarde	Australië en Verenigd Koninkrijk	2010

De algemene tendens in landen als het Verenigd Koninkrijk en Australië neigt dus eerder naar een negatieve perceptie ten aanzien van de standaarddiensten. Onder meer Blackburn *et al.* (2010) stellen dat die bevinding zonder problemen kan worden doorgetrokken naar andere landen met ontwikkelde economieën. We verwachten dan ook gelijkaardige resultaten voor onze doelgroep, ook al doen de aangehaalde onderzoeken geen uitspraak over micro-ondernemingen in het bijzonder. Dat levert de eerste hypothese op:

Hypothese 1: De standaarddiensten van de externe accountant en de daaruit resulterende informatie worden door de meer-

derheid van de Vlaamse micro-ondernemingen niet gezien als een toegevoegde waarde.

3. DE ADVISERENDE DIENSTEN

3.1. Inhoud

Zoals reeds aangegeven, zal de externe accountant in de toekomst steeds meer evolueren naar een professional die naast de traditionele accountingdiensten andere services aanbiedt, zoals het verstrekken van allerhande advies. Volgens Hanot (2012: 2) moet 'de boekhouder niet langer als een cijfergoochelaar worden aanzien, maar eerder als een bedrijfsadviseur, zeker in tijden van crisis'. Carey *et al.* (2005) stellen dat het beroep dat eens werd geacht enkel boekhoudkundige taken te verrichten, zich heeft ontwikkeld tot een quasi-consultingservice, met advies over talrijke aspecten van de bedrijfsvoering, naast zuiver boekhoudkundig advies. Barbera & Hasso (2013) confirmeren dat idee en zien de accountant als 'one-stop shop' voor de familiale kmo. De zogenaamde Big 4-kantoren zijn het schoolvoorbeeld van die diversificatiestrategie, aangezien zij een uitgebreide waaier aan diensten aanbieden. Frank, Hanson, Lowe, & Smith (2001) zien die evolutie echter ook bij kleine accountantskantoren en zelfstandige accountants en beweren dat ook zij een steeds grotere rol zullen spelen in de multidisciplinaire ontwikkeling van het beroep. Volgens Blackburn *et al.* (2010) en Døving & Gooderham (2008) zullen die kleinere spelers eerder een doorverwijzende rol vervullen met een eigen netwerk van experts.

Uniformiteit over de indeling of definitie van dergelijk advies is in de wetenschappelijke literatuur niet te bespeuren. Gezien de grote diversiteit werken wij in dit artikel met een relatief uitgebreide lijst van vijftien adviserende diensten, overgenomen uit het onderzoek van Døving & Gooderham (2008). Meer bepaald gaat het over de volgende soorten advies die de zaakvoerders al dan niet inwinnen:

- belastingen en fiscale planning;
- erfeniskwesties/successieplanning;
- keuze rechtsvorm;
- beheer van schulden en het sluiten van bedrijven;
- financieel management en budgettering;
- pensioenregeling;
- eigendomsoverdracht;
- marketing, sales en strategische planning;
- externe accountant als secretaris in raad van bestuur;
- administratieve routines en IT;

- management, organisatie, humanresourcesmanagement;
- training en het ontwikkelen van vaardigheden;
- externe accountant als financieel directeur;
- beloningsbeleid en salarisadministratie;
- waardebeoordeling bedrijf, fusies en splitsingen.

3.2. De externe accountant als aanbieder van adviserende diensten

Het staat vast dat de externe accountant een gevestigde waarde is in het verlenen van advies. Uit de literatuur leiden we af dat hij door een groot percentage van kmo's wordt geraadpleegd voor adviserende diensten. Uit de vragenlijst van Bennett & Robson (1999) blijkt aldus dat in 1997 83 % van de kmo's in het Verenigd Koninkrijk een beroep deed op de externe accountant voor advies. Ook bij het onderzoek van Bennett & Smith (2002, in Barbera & Hasso, 2013) komt een percentage van 75 tot 95 % naar voren, terwijl Berry, Sweeting, & Goto (2006) via interviews tot het besluit komen dat 85 % van de kmo's in het Verenigd Koninkrijk advies vroeg aan de externe accountant. Een iets lager percentage, namelijk 67 %, werd gevonden in het rapport van Carey *et al.* (2005) voor Australische kmo's.

Naast de hoge gebruikspercentages wordt in enkele onderzoeken (Bennett & Robson, 1999; Berry *et al.*, 2006; en Blackburn *et al.*, 2010) ook vastgesteld dat de externe accountant de voornaamste bron is van advies voor kmo's. De resultaten van de enquête van het BIBF 'Vertel ons alles over het contact met uw boekhouder' verschaffen ons een beeld van de Belgische situatie. De respondenten van de enquête waren bedrijven van alle groottes en vrije beroepers. Daaruit bleek dat 60 % van de Belgische bedrijven de boekhouder als hun bevoorrechte raadgever beschouwde (Hanot, 2012). Voorgaande informatie wordt in tabel 2 kort samengevat.

Tabel 2: Overzicht van literatuur over gebruik van adviserende diensten

Auteur(s)	Conclusie	Land	Jaartal
Bennett & Robson	83 % van de kmo's doet een beroep op externe accountant voor advies Accountant is voornaamste bron van advies voor kmo's	Verenigd Koninkrijk	1999

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Auteur(s)	Conclusie	Land	Jaartal
Bennett & Smith	75 %-95 % van de kmo's doet een beroep op externe accountant voor advies	Verenigd Koninkrijk	2002
Carey, Simnett, & Tanewski	67 % van de kmo's doet een beroep op externe accountant voor advies	Australië	2005
Berry, Sweeting, & Goto	85 % van de kmo's doet een beroep op externe accountant voor advies Externe accountant is meest voorkomende bron van advies voor kmo's	Verenigd Koninkrijk	2006
Blackburn, Carey, & Tanewski	Externe accountant is voornaamste adviseur van kmo's	Australië en Verenigd Koninkrijk	2010
Hanot	60 % van de bedrijven beschouwt de externe accountant als bevoorrechte raadgever	België	2012

We stellen vast dat internationaal gezien de externe accountant vaak de voornaamste raadgever is van de kmo's, naast banken, advocaten, vrienden en dergelijke. Ook in België werd een gelijkaardig resultaat gevonden. De verwachting voor de Vlaamse micro-ondernemingen ligt in dezelfde lijn, ook al situeren ze zich op een kleinschaliger niveau. Die verwachting levert de volgende hypothese op:

Hypothese 2: De externe accountant is de voornaamste bron van adviserende diensten voor de meerderheid van de Vlaamse micro-ondernemingen.

3.3. De perceptie van de zaakvoerder

Wanneer we kijken naar de adviserende diensten van de externe accountant, merken we dat de meeste onderzoekers besluiten dat die diensten een toegevoegde waarde betekenen voor de kmo-zaakvoerder. Uit het onderzoek van Carey *et al.* (2005) blijkt dat 80 % van de kmo-eigenaars tevreden was over het zakelijk advies dat ze aankochten. Doggett & Hepple (1995, in Bennett & Robson, 1999) concluderen dat 53,7 % van de kmo's het advies van de accountant beoordeelde als 'good' en 42,1 % als 'fairly good'. We kunnen dus stellen dat 95,8 % overwegend tevreden was. Ook in het onderzoek van Bennett & Robson (1999) trekt men een gelijkaardige conclusie. Het zakelijk advies van de externe accountant kreeg een impactscore van 'important' of beter, oftewel een gemiddelde score die hoger lag

dan 3 op 5. Dezelfde auteurs deden in 2005 nogmaals een onderzoek en daaruit bleek eveneens dat 77 % van de kmo-eigenaars tevreden was over het advies van de externe accountant (Bennett & Robson, 2005).

Toch zijn er ook onderzoeken te vinden die daar niet in mee-gaan. Cameron (1995, in Blackburn *et al.*, 2010) merkte in zijn onderzoek dat de zaakvoerder een eerder neutrale mening had over de kostenefficiëntie van het zakelijk advies dat hij/zij aan de externe accountant vroeg. De voordelen van het advies zouden volgens dat onderzoek niet altijd opwegen tegen de relatief hoge kosten. Ook Kirby & King (1997) concludeerden dat de meerderheid van de zaakvoerders niet altijd een toegevoegde waarde ziet in de adviserende diensten. Uit hun enquête bleek dat slechts 41,9 % van de respondenten vond dat het 'value for money'-aspect van het advies 'fairly influential' of 'very influential' was. Een overzicht van die onderzoeken wordt weergegeven in tabel 3.

Tabel 3: Overzicht van literatuur over perceptie van adviserende diensten

Auteur(s)	Conclusie	Land	Jaartal
Cameron	Zaakvoerders hebben neutrale mening over kostenefficiëntie van zakelijk advies van externe accountant	Nieuw-Zeeland	1995
Doggett & Hepple	53,7 % beoordeelt advies van externe accountant als 'good', 42,1 % beoordeelt het als 'fairly good' (95,8 % 'tevreden')	Verenigd Koninkrijk	1995
Kirby & King	41,9 % ziet de adviserende diensten van externe accountant als 'fairly influential' of 'very influential' op het vlak van 'value for money'	Verenigd Koninkrijk	1997
Bennett & Robson	Het zakelijk advies van de externe accountant kreeg impactscore van 'important' of beter	Verenigd Koninkrijk	1999
Carey, Simnett, & Tanewski	80 % is tevreden over het advies. Financieel voordeel en beter evenwicht tussen werk en ontspanning	Australië	2005

Auteur(s)	Conclusie	Land	Jaartal
Bennett & Robson	77 % van de kmo-eigenaars is tevreden over het advies van de externe accountant	Verenigd Koninkrijk	2005

Uit deze gegevens kunnen we afleiden dat een groot deel van de kmo-eigenaars de adviserende diensten die de externe accountant levert, ziet als een toegevoegde waarde voor hun bedrijf. We verwachten dat eveneens terug te zien in de Vlaamse context op het niveau van micro-ondernemingen. Dat leidt tot de volgende hypothese:

Hypothese 3: De adviserende diensten van de externe accountant worden door de meerderheid van de Vlaamse micro-ondernemingen die er gebruik van maken, gezien als een toegevoegde waarde.

3.4. De invloed van de opgebouwde vertrouwensrelatie op de vraag

Uit de literatuur blijkt dat de vertrouwensrelatie tussen de zaakvoerder en de externe accountant een belangrijke rol speelt bij de vraag naar adviserende diensten. Dat proces van vertrouwen begint bij de standaarddiensten van de externe accountant en ontwikkelt zich doorheen de jaren. Collis & Jarvis (2002) stellen dat de rol die de externe accountant speelt in het voorbereiden en opstellen van de jaarrekening hem de mogelijkheid biedt om advies te geven. De resultaten van Kirby & King (1997) ondersteunen die bevinding en stellen dat de relatie gevestigd door de standaarddiensten de meest invloedrijke factor is bij de vraag naar advies. Bennett & Robson (1999) suggereren eveneens dat de mate van gebruik van advies sterk afhangt van de vertrouwensrelatie tussen de adviseur en de zaakvoerder. In een later onderzoek bevestigen ze nogmaals dat het concept vertrouwen en de intensiteit van zakelijk advies positief gerelateerd zijn aan elkaar (Bennett & Robson, 2005). Ook Carey *et al.* (2005) stellen dat betrouwbaarheid en competentie, naast prijs/kwaliteit, de sleutelfactoren zijn bij de vraag naar advies bij de externe accountant. Ook wij verwachten bijgevolg dat er een verband merkbaar is tussen de vertrouwensrelatie en de vraag naar advies bij de Vlaamse micro-ondernemingen. De laatste hypothese van dit artikel stelt:

Hypothese 4: Hoe sterker de vertrouwensrelatie tussen de zaakvoerder en de externe accountant, hoe meer er gebruik wordt gemaakt van de adviserende diensten van de externe accountant.

4. DATAVERZAMELING EN STEEKPROEF

4.1. Dataverzameling

Om de gegevens te verzamelen die nodig zijn om de vooropgestelde hypothesen te toetsen, werd er een online-enquête (opgesteld in Qualtrics) naar Vlaamse micro-ondernemingen verstuurd. Meer specifiek werden via de Bel-first-databank van Bureau van Dijk de contactgegevens opgezocht van volgende doelgroep: de actieve ondernemingen in het Vlaamse Gewest met maximaal tien werknemers³ (in de rechtsvorm nv, Comm. VA, Comm. V, bvba, EBVBA en vof). Na een manuele schifting van bedrijven met een opvallend hoog balanstotaal en/of omzetcijfer, bleven er 12.836 ondernemingen over. De gegevens werden in juli 2014 uit de Bel-first-databank onttrokken en de data op zich hebben betrekking op de jaren 2012 en 2013.

De enquête werd via mail uitgestuurd op 1 augustus 2014. Exact één week na het lanceren van de enquête hadden 601 ondernemingen daar gevolg aan gegeven en de enquête gestart. Niet elke zaakvoerder heeft de enquête echter volledig ingevuld. In 166 gevallen werd de vragenlijst vroegtijdig beëindigd op zulke wijze dat er geen bruikbare informatie werd vergaard. Die resultaten werden verwijderd. Er bleven bijgevolg nog 435 volledige cases over. Dat stemt overeen met een voltooiingspercentage van 72,38 % en globaal gezien is er een succesvolle response rate van 3,39 %.

Uit deze steekproef werden nog een aantal ondernemingen verwijderd, met name omdat hun werknemersaantal (beduidend) hoger lag dan vermeld in de Bel-first-databank (12 cases) en/of omdat ze geen gebruikmaakten van de diensten van een externe accountant (22 cases). Alles samen werden er 401 cases overgehouden. Zij vertegenwoordigen hier de populatie van micro-ondernemingen die een beroep doen op de standaarddiensten en/of de adviserende diensten van de externe accountant.

Bij de empirische verwerking wordt er echter gebruikgemaakt van afzonderlijke deelsteekproeven. Enerzijds hebben bepaalde hypothesen enkel betrekking op het deel van de micro-ondernemingen dat gebruikmaakt van de standaarddiensten van de externe accountant. Die deelsteekproef bevat 400 ondernemingen. Anderzijds zijn er hypothesen die enkel van toepassing zijn op de micro-ondernemingen die

³ Hoewel ook de criteria van omzet en balanstotaal het concept van micro-onderneming bepalen (zie voetnoot 2), besluiten we ons enkel op het tewerkstellingscijfer te focussen (en dat voornamelijk vanwege de niet-beschikbaarheid van het omzetcijfer voor vele kleine ondernemingen). In totaal waren er op het moment van de opzoeking 124.086 Belgische ondernemingen met een rechtsvorm in de Bel-first-database opgenomen, met een werknemersbestand van 0 tot 10, waarvan 75.644 in Vlaanderen.

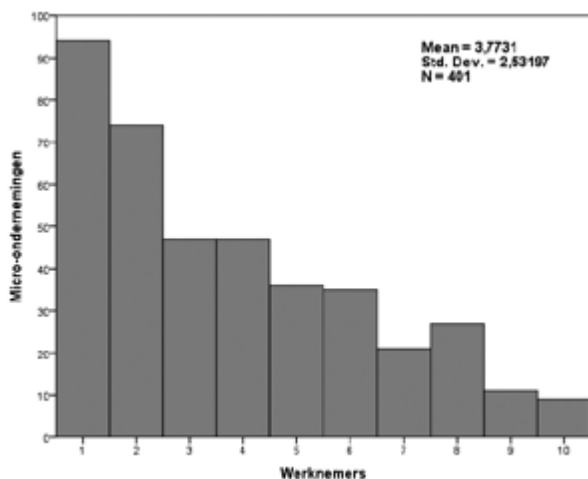
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een beroep doen op de adviserende diensten van de externe accountant. Die deelsteekproef bevat 366 bedrijven. In andere gevallen moet de deelsteekproef worden aangepast aan het aantal respondenten dat een geldig antwoord gaf op een bepaalde vraag.

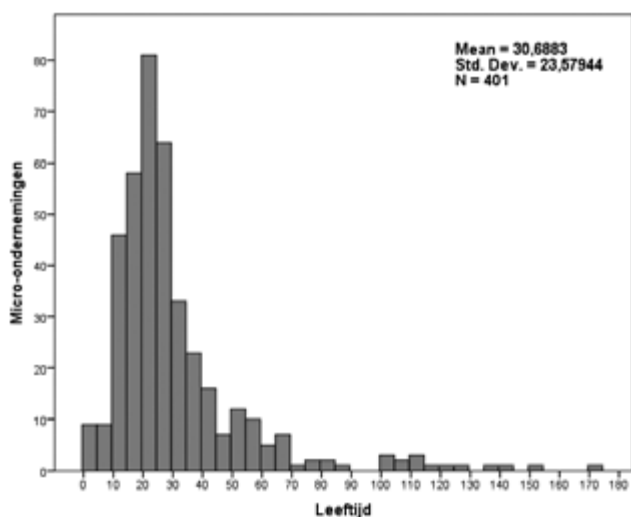
4.2. De steekproef

Zoals gesteld, bevat onze totale steekproef 401 ondernemingen. In figuur 1 en 2 worden de beschrijvende statistieken in verband met het aantal personeelsleden en de leeftijd van de ondernemingen weergegeven.

Figuur 1: Aantal werknemers in de steekproefondernemingen (N = 401)

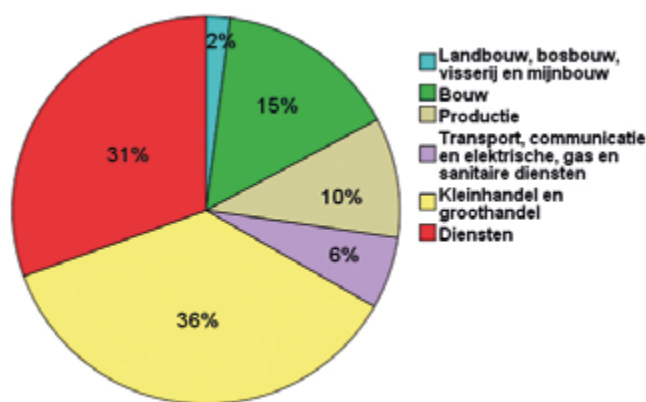


Figuur 2: Leeftijd van de steekproefondernemingen (N = 401)



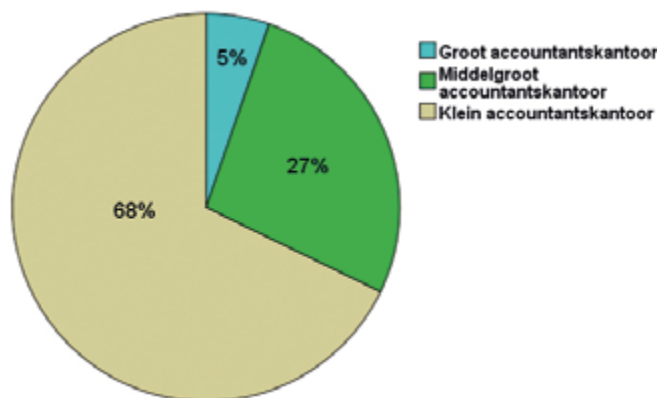
Informatie over de sectoren is te vinden in figuur 3. Het is duidelijk dat vooral de dienstensector en de klein- en groothandel het sterkst vertegenwoordigd zijn in de steekproef. Dat ligt in de lijn der verwachting gezien het hier uitsluitend micro-ondernemingen betreft.

Figuur 3: Sector van de steekproefondernemingen (N = 401)



Ook werd de respondent gevraagd aan te geven bij welk soort accountantskantoor hij/zij klant is. Zoals blijkt uit figuur 4, wendt de overgrote meerderheid van de micro-ondernemingen in onze steekproef zich tot een klein accountantskantoor. Ook dat is geen verrassend resultaat aangezien grotere accountantskantoren zich vaak eerder richten op grotere klanten.

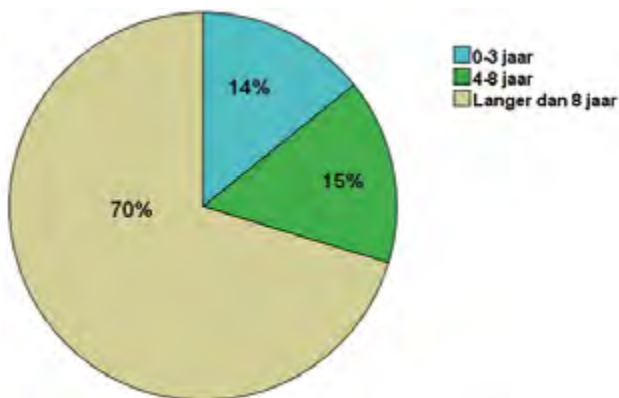
Figuur 4: Grootte accountantskantoor van de steekproefondernemingen (N = 401)



De duur van de zakelijke relatie met de externe accountant werd eveneens bevraagd. Uit figuur 5 blijkt dat 70 % van de respondenten een zakelijke relatie heeft met de externe ac-

countant die langer duurt dan acht jaar. Wanneer we enkel rekening houden met de ondernemingen die minstens acht jaar bestaan, stijgt dat aandeel tot 72 %.

Figuur 5: Duur zakelijke relatie met accountant van de steekproefondernemingen (N = 401)



5. RESULTATEN WAT BETREFT DE STANDAARDDIENSTEN

5.1. Gebruik van de standaarddiensten

In de enquête werd de respondenten gevraagd om aan te geven welke van de zes standaarddiensten, weergegeven in sectie 2, ze in hoofdzaak zelf uitvoeren. Zoals blijkt uit tabel 4, wordt het inboeken van facturen en financiële verrichtingen door een groot deel van de micro-ondernemingen zelf gedaan. De btw-aangifte en het opstellen van tussentijdse resultatenrekeningen wordt door een derde van de respondenten bin-

nenshuis verzorgd. Het opstellen van de jaarrekening en de vennootschapsbelastingaangifte worden dan weer door het overgrote deel uitbesteed aan de externe accountant.

Tabel 4: Intern uitgevoerde standaarddiensten

Categorie	Percentage intern
Het registreren van facturen en financiële verrichtingen	70,50 %
Het opstellen van tussentijdse resultatenrekeningen	31,00 %
De eindejaarsverrichtingen en jaarafsluiting	6,50 %
Het opstellen van de jaarrekening (inclusief jaarverslag)	0,50 %
De btw-aangifte	36,30 %
De vennootschapsbelastingaangifte	2,30 %

N = 287

5.2. Perceptie van de zaakvoerder (hypothese 1)

Indien de respondent een bepaalde dienst uitbesteedt aan de externe accountant, werd hem/haar gevraagd aan te geven in welke mate hij/zij ervaart dat die dienst en de bekomen informatie een toegevoegde waarde vormt voor het bedrijf. Deze perceptie wordt gemeten door middel van een 5-punts Likert-schaal (1 = onnuttig, 5 = nuttig).

Uit tabel 5 valt meteen op dat de beoordelingen voor de zes diensten behoorlijk hoog liggen. De gemiddelde beoordeling ligt namelijk steeds boven 4 op een schaal van 5.

Tabel 5: Perceptie van standaarddiensten

	N	Minimum	Maximum	Gemiddelde	Std. Deviatie
Facturen	127	1	5	4,19	,990
Tussentijdse resultatenrekening	281	1	5	4,30	,887
Eindejaarsverrichtingen en jaarafsluiting	384	1	5	4,78	,548
Jaarrekening	398	2	5	4,81	,497
Btw-aangifte	260	1	5	4,62	,779
Vennootschapsbelastingaangifte	387	1	5	4,74	,620

Met deze data kunnen we aan de slag om hypothese 1 te testen. De dataset wordt daarbij opgedeeld in twee groepen, enerzijds die respondenten die geen toegevoegde waarde ervaren (dat is indien de waardering lager is dan of gelijk is aan 3/5), en

anderzijds die respondenten die wel een toegevoegde waarde ervaren (dat is indien de waardering groter is dan 3/5). Op basis daarvan voeren we een 'one-sample binomiale test' uit met SPSS, wat resulteert in de output, weergegeven in tabel 6.

De rol van de externe accountant binnen de Vlaamse micro-onderneming

Tabel 6: One-sample binomial test: gepercipieerde toegevoegde waarde standaarddiensten

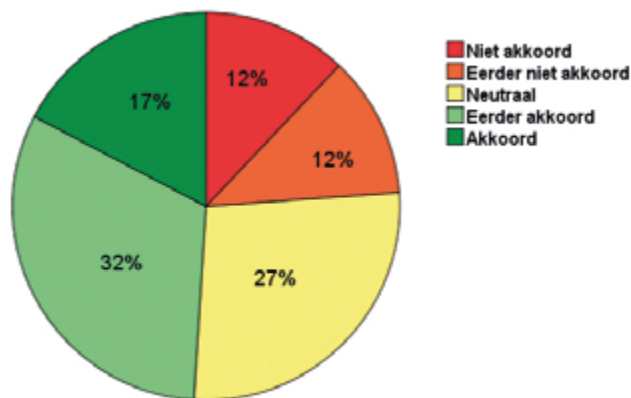
		Categorie	N	Waargenomen Prop.	Test Prop.	Exact Sig. (1-zijdig)
Toegevoegde waarde	Groep 1	Geen TW	12	,03	,50	,000
	Groep 2	Wel TW	388	,97		
	Totaal		400	1,00		

De gevonden proportie van zaakvoerders die geen toegevoegde waarde percipiëren, bedraagt 12/400 oftewel 3 %. Dat percentage wijkt sterk af van de vooropgestelde proportie van 50 %. De zeer lage p-waarde wijst op een hoge graad van betrouwbaarheid. Concreet betekent dit dat een groot deel van de micro-ondernemingen wel een toegevoegde waarde toeschrijft aan de standaarddiensten van de externe accountant, en dat we hypothese 1 dus kunnen verwerpen.

5.3. Informatiebehoefte van respondenten

In de enquête werd er ook gepolst naar de informatiebehoefte van de zaakvoerders. Concreet werd er gevraagd of er naast de zes standaarddiensten de behoefte was om extra informatie te verkrijgen omtrent de financiële resultaten. Voorbeelden die daarbij werden aangehaald waren grafieken, diagrammen, boordtabellen en ratio's. Figuur 6 brengt de antwoorden in beeld. Ongeveer de helft van de respondenten geeft aan eerder akkoord of helemaal akkoord te gaan met de stelling omtrent de extra informatiebehoefte.

Figuur 6: Informatiebehoefte naar meer standaarddiensten (N = 400)



Als uitbreiding op deze zuiver statistische gegevens werd er in de enquête vrijblijvend gevraagd om een persoonlijke mening of opmerking te geven. In totaal deelden 38 zaakvoerders hun mening.

De algemene consensus is dat visuele informatie een welgekomen afwisseling is naast de puur cijfermatige data. Een respondent rapporteert: 'Het omzetten van puur boekhoudkundige cijfers naar een managementstool is belangrijk.' Een aantal respondenten geven aan dat hun externe accountant op dat vlak tekortschiet. Zo stelt een respondent: 'De standaarddiensten lopen perfect, maar extra ondersteuning/informatie omtrent financiële resultaten/investeringen missen we wel.' Eenzelfde punt komt naar voren in deze quote: 'Die extra gegevens verkrijg ik te weinig van mijn huidig accountant, onder meer omdat hij het te druk heeft en zich strikt aan zijn basisdiensten houdt.' Nog een andere zaakvoerder stelt meer in het algemeen: 'Algemeen externe accountant = te veel gericht op cijfertjes. Te weinig het grote geheel zien van klanten, innovatie, opportuniteiten... Het inlevingsvermogen naar de onderneming ontbreekt meestal bij de externe accountant.'

Iets wat daarnaast meermaals terugkomt, is het nut van de terbeschikkingstelling van informatie tijdens het lopende boekjaar. Enkele respondenten voelen aan dat zij tijdens het jaar meer zouden hebben aan informatie die hun financiële prestaties beoordeelt. De accountant zou volgens deze respondenten korter op de bal moeten spelen. Een zaakvoerder schrijft bijvoorbeeld: 'Een goede accountant zou in de loop van het jaar afhankelijk van de tussentijdse resultaten advies moeten geven, vind ik.' Daarnaast is er een andere respondent die stelt: 'Ik zou inderdaad wat meer informatie tijdens het jaar willen bekomen om van daaruit bepaalde beslissingen te kunnen nemen.' Uit deze informatie kunnen we besluiten dat de traditionele jaarrekening voor bepaalde zaakvoerders een informatiebron is die veelal achter de feiten aanloopt.

Een andere respondent geeft dan weer aan dat een online-platform zeer nuttig zou kunnen zijn. De zaakvoerder zou dan alle informatie omtrent zijn onderneming up-to-date kunnen raadplegen. Verder zijn er ook enkele respondenten die zelf overgaan tot het opstellen van grafieken en boordtabellen op basis van de financiële gegevens. De accountant helpt hen dan bij het analyseren en verklaren van die gegevens.

Door twee respondenten wordt verder aangegeven dat de externe accountant naar hun mening relatief duur is op het vlak van standaarddiensten. Zo stelt een respondent 'Vergoeding

van +/- € 1000 voor kwartaalaangifte ligt aan de hoge kant vermits het voorbereidend werk van registratie van facturen en bankuittreksels door onszelf gebeurt.' Een tweede respondent deelt deze mening, hij schrijft: 'Opmaken loonstaten, balansen, jaarrekeningen: is heel duur!!!'

Enkele respondenten maken gebruik van de kans om in het vak van de opmerkingen reeds de behoefte aan adviserende diensten aan te halen. Het advies omtrent kostenbesparende maatregelen op het vlak van fiscaliteit, is een veelvoorkomend element. Men verwacht van de accountant dat hij op de hoogte is van wetwijzigingen en advies kan geven over fiscale optimalisatie. Het constructief meedenken over de toekomst komt ook meermaals terug in de opmerkingen. Zo rapporteert een zaakvoerder: 'We verwachten van de externe accountant, zeker in een klein bedrijf, dat hij met ons meedenkt over de toekomst: wat kunnen we investeren, vennootschapsvorm, successie.'

6. RESULTATEN WAT BETREFT DE ADVISERENDE DIENSTEN

6.1. De accountant als een van de aanbieders (hypothese 2)

Een eerste feit dat vermeld kan worden, is dat een groot percentage van de micro-ondernemingen gebruikmaakt van de adviserende diensten die de externe accountant aanbiedt. Van de 380 respondenten die de vragen omtrent de adviserende diensten correct invulden, wendt 96,3 % zich daarvoor tot hun externe accountant (zijnde 366 respondenten).

Om te weten of de accountant daarmee al dan niet een belangrijke adviseur is binnen een onderneming, werd in de enquête gevraagd om aan te geven hoe vaak de accountant en andere adviseurs werden geraadpleegd in de loop van het voorgaande jaar. In totaal werden acht adviseurs voorgelegd, die werden

geselecteerd aan de hand van de literatuurstudie. De bevindingen worden in tabel 7 weergegeven.

Tabel 7: Aantal raadplegingen per jaar

Bron van advies	Niet	1-2 keer	3-5 keer	Meer dan 5 keer
Advocaat	34,82 %	38,72 %	16,99 %	9,47 %
Bank	20,33 %	39,55 %	21,73 %	18,38 %
Beroepsorganisatie	55,34 %	26,12 %	12,36 %	6,18 %
Externe accountant	9,14 %	21,88 %	25,76 %	43,21 %
Overheid	59,49 %	30,31 %	6,80 %	3,40 %
Sociaal secretariaat	8,86 %	23,27 %	30,19 %	37,67 %
Verzekeringsmaatschappij	16,48 %	42,74 %	26,26 %	14,53 %
Vrienden en familie	51,69 %	21,47 %	12,99 %	13,84 %

N = 361

Uit deze cijfers blijkt dat de externe accountant, samen met het sociaal secretariaat, het frequentst geraadpleegd wordt voor advies. Andere bronnen van advies die door de respondenten zelf worden vermeld zijn de notaris, het internet, de bedrijfsrevisor en Voka.

Om het belang van de externe accountant als adviseur (in vergelijking met andere adviseurs) te bepalen, werd daarnaast aan de respondent gevraagd deze acht adviseurs te rangschikken van belangrijkste naar minst belangrijk. Op deze vraag gaven 362 respondenten een geldig antwoord. De respondenten worden in twee groepen ingedeeld: voor de ene groep is de externe accountant de belangrijkste bron van advies, voor de andere groep is dat niet het geval. Op basis daarvan voeren we een 'one-sample binomiale test' uit met SPSS, wat resulteert in de output weergegeven in tabel 8.

Tabel 8: One-sample binomial test: belang externe accountant

		Categorie	N	Waargenomen Prop.	Test Prop.	Exact Sig. (1-zijdig)
Belang van externe accountant	Groep 1	Belangrijkst	232	,641	,50	,000
	Groep 2	Niet belangrijkst	130	,359		
			362	1,00		

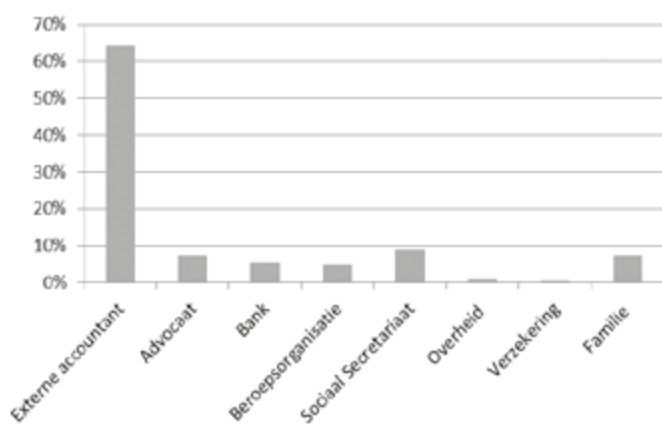
Uit de analyse van de data blijkt dat voor 64,1 % van de respondenten de externe accountant op de eerste plaats komt als adviseur. Op basis van de p-waarde van deze output kunnen we bijgevolg hypothese 2 bevestigen.

De externe accountant is dus de voornaamste adviseur voor onze Vlaamse micro-ondernemingen en scoort beduidend hoger dan eender welke andere aanbieder van advies. Dat gegeven wordt nog eens duidelijk geïllustreerd aan de hand van

De rol van de externe accountant binnen de Vlaamse micro-onderneming

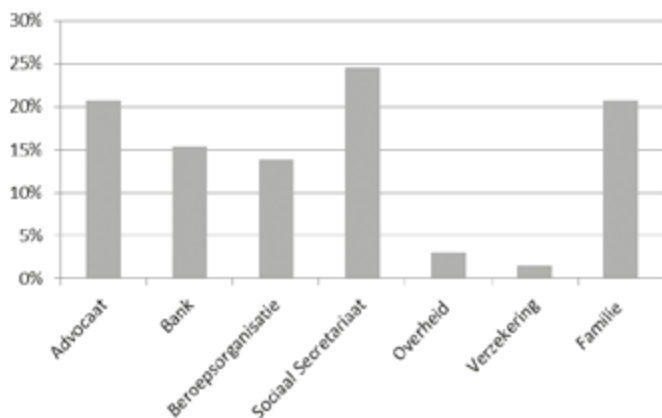
figuur 7. Op de tweede plaats komt het sociaal secretariaat, vermits 9 % van de respondenten dat als voornaamste bron van advies ziet. Voor 7 % van de bevroegde micro-ondernemingen vervullen de categorieën 'advocaat' en 'vrienden en familie' die rol.

Figuur 7: Belangrijkste adviseur voor de micro-ondernemingen (N = 362)



In totaal gaven 130 ondernemingen aan dat de externe accountant niet de voornaamste bron van advies is voor hun onderneming. De externe accountant staat voor 50 %, oftewel 65 van deze ondernemingen, wel op de tweede plaats. Voor slechts 14 ondernemingen komt de externe accountant op de zesde, zevende of achtste plaats. In figuur 8 wordt weergegeven welke adviseurs dan wel het belangrijkste zijn voor die 130 respondenten die de externe accountant niet als voornaamste bron van advies zagen. Ook hier primeert het sociaal secretariaat, op de voet gevolgd door advocaat en familie.

Figuur 8: Belangrijkste adviseur voor micro-ondernemingen die niet voor de externe accountant opteren (N = 130)



6.2. Gebruik van de adviserende diensten

In de enquête werd de respondenten gevraagd om aan te geven welke van de 15 adviserende diensten, weergegeven in sectie 3, de externe accountant in het verleden heeft verleend aan de onderneming. Per adviserende dienst werd het gebruikspercentages berekend (met name het aantal respondenten dat een bepaald advies heeft gevraagd in het verleden, gedeeld door het totale aantal respondenten voor de vraag).

Tabel 5: Gebruik adviserende diensten

Categorie	Percentage gebruik
Belastingen en fiscale planning	85,30 %
Erfeniskwesties / successieplanning	47,90 %
Keuze rechtsvorm	62,90 %
Beheer van schulden en stopzetting van bedrijf	42,40 %
Financieel management en budgettering	47,10 %
Pensioenregeling	51,10 %
Eigendomsoverdracht	51,80 %
Marketing, sales en strategische planning	23,90 %
Externe accountant als secretaris in raad van bestuur	22,10 %
Administratieve routines en IT	25,80 %
Management, organisatie, humanresourcesmanagement	23,20 %
Training en het ontwikkelen van vaardigheden	20,80 %
Externe accountant als financieel directeur	19,50 %
Beloningsbeleid en salarisadministratie	37,60 %
Waardebepaling bedrijf, fusies en splitsingen	57,60 %

N = 380

Het soort advies dat het meest gevraagd wordt, situeert zich op het vlak van fiscaliteit, de keuze van de geschikte rechtsvorm en de waardebepaling van het bedrijf. Het is duidelijk dat er in mindere mate een beroep wordt gedaan op de externe accountant voor bedrijfstakingen die zich eerder in de interne sfeer situeren. Het gaat dan over taken als financieel directeur en secretaris van de raad van bestuur, training en het ontwikkelen van vaardigheden, management, marketing, sales en strategische planning. Het feit dat de micro-ondernemingen zulke interne processen in mindere mate outsourcen, is eveneens een eerder logische bevinding.

6.3. Perceptie van de zaakvoerder (hypothese 3)

Indien de respondent de externe accountant om een bepaald advies heeft gevraagd, diende hij/zij aan te geven in welke mate werd ervaren dat die dienst nuttig was voor het bedrijf, en dat aan hand van een 5-punts Likertschaal (1 = onnuttig, 5 = nuttig).

Tabel 10 illustreert dat de beoordelingen van de toegevoegde waarde van de adviserende diensten waarvan wordt gebruikgemaakt, erg kan verschillen afhankelijk van het soort advies dat wordt gevraagd.

Tabel 10: Perceptie van adviserende diensten

Categorie	N	Minimum	Maximum	Gemiddelde	Std. deviatie
Belastingen en fiscale planning	324	2	5	4,40	,680
Erfeniskwesties / successieplanning	191	1	5	4,02	1,066
Keuze rechtsvorm	237	1	5	4,18	,847
Beheer van schulden en stopzetting van bedrijf	162	1	5	3,85	1,121
Financieel management en budgettering	185	1	5	3,86	1,022
Pensioenregeling	194	1	5	3,92	,944
Eigendomsoverdracht	196	1	5	4,07	,909
Marketing, sales en strategische planning	92	1	5	2,68	1,240
Externe accountant als secretaris in raad van bestuur	85	1	5	2,68	1,293
Administratieve routines en IT	100	1	5	2,84	1,220
Management, organisatie, humanresourcesmanagement	90	1	5	2,63	1,293
Training en het ontwikkelen van vaardigheden	77	1	5	2,39	1,149
Externe accountant als financieel directeur	72	1	5	2,40	1,134
Beloningsbeleid en salarisadministratie	142	1	5	3,31	1,143
Waardebepaling bedrijf, fusies en splitsingen	219	1	5	4,17	,811

De gemiddelde beoordeling ligt voor een aantal adviserende diensten boven 4 op een schaal van 5. Dat is het geval voor advies omtrent fiscaliteit, successieplanning, de keuze van de rechtsvorm, eigendomsoverdracht en de waardebepaling van het bedrijf. Men zou deze categorieën kunnen beschouwen als zijnde de corebusiness van de externe accountant. Anderzijds zijn er ook adviserende diensten waarvan de gepercipieerde toegevoegde waarde lager ligt. Dat is het geval voor trainingen, de taken van financieel directeur en secretaris van de raad van bestuur, management, marketing en administratieve routines. Die soorten advies kwamen eerder al naar voren als zijnde advies dat het minst vaak wordt gevraagd aan de externe accountant. De adviserende diensten waar bedrijven minder snel gebruik van maken, blijken dus

ook diegene te zijn die het minst goed beoordeeld worden door diegene die er wel gebruik van maken.

Met deze data kunnen we aan de slag om hypothese 3 te testen. Die stelt dat de adviserende diensten van de externe accountant door de meerderheid van de Vlaamse micro-ondernemingen die er gebruik van maken, worden gezien als een toegevoegde waarde. De dataset wordt vervolgens opgedeeld in twee groepen: enerzijds diegenen die geen toegevoegde waarde ervaren (dat is indien de waardering lager is dan of gelijk is aan 3/5), en anderzijds diegenen die wel een toegevoegde waarde ervaren (dat is indien de waardering groter is dan 3/5). Op basis daarvan wordt een 'one-sample binomiale test' uitgevoerd met SPSS, wat resulteert in de output van tabel 11.

Tabel 11: One-sample binomial test: gepercipieerde toegevoegde waarde adviserende diensten

		Categorie	N	Waargenomen prop.	Test prop.	Exact sig. (1-zijdig)
Toegevoegde waarde	Groep 1	Wel TW	313	,86	,50	,000
	Groep 2	Geen TW	53	,14		
	Totaal		366	1,00		

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De gevonden proportie van zaakvoerders die wel een toegevoegde waarde ervaren, bedraagt 313/366, wat overeenkomt met 86 %. Uit tabel 11 en de bijbehorende p-waarde kunnen we dus afleiden dat de proportie p significant groter is dan 50 %, waarmee hypothese 3 kan worden bevestigd.

6.4. Aanvullende bevindingen

Om nog een beter beeld te krijgen van deze problematiek, werden er nog twee bijvragen gesteld.

Aan elke respondent die aangaf gebruik te maken van adviserende diensten bij de externe accountant, werd gevraagd wat precies de reden is om zich tot de externe accountant te wenden. De volgende opties werden alvast gegeven, maar meerdere antwoorden zijn mogelijk:

- Door de standaarddiensten die de externe accountant uitvoert, kent hij/zij mijn bedrijf het beste.
- Het is de goedkoopste optie.
- Mijn externe accountant is het makkelijkst bereikbaar (telefonisch of fysiek).
- Onduidelijk welke andere partij me zou kunnen helpen/ adviseren.
- Het is een betrouwbare partner.
- Andere, nl.: ...

Figuur 9 stelt de antwoorden grafisch voor. De twee voornaamste redenen blijken de kennis van het bedrijf en de betrouwbaarheid te zijn. De redenen die door de respondenten werden opgegeven onder de noemer 'andere' hebben vooral te maken met de expertise/specialisatie van de externe accountant. Samenvattend stelt een respondent: 'Omdat hij de wetgeving op het vlak van boekhouding kent (en ook moet bijleren).' Voor een zeer klein deel van de respondenten is de kostenfactor een reden om voor de externe accountant te kiezen.

Figuur 9: Redenen vraag om advies bij externe accountant (N = 366)

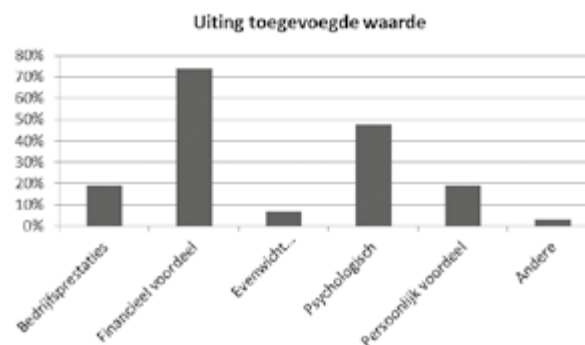


Aan elke respondent die één of meerdere adviserende diensten een beoordeling gaf van 4/5 of 5/5, werd vervolgens gevraagd op welke manier die toegevoegde waarde zich uit. Verschillende opties werden gegeven, maar wederom konden er meerdere antwoorden worden aangeduid:

- verbeterde bedrijfsprestaties;
- financieel/belastingvoordeel;
- beter evenwicht werk/ontspanning;
- psychologisch voordeel (geruststelling);
- persoonlijk voordeel (privésfeer);
- andere, nl.: ...

In figuur 10 worden de antwoorden grafisch voorgesteld. Daaruit blijkt dat de toegevoegde waarde van de adviserende diensten zich vooral uit in de vorm van een financieel voordeel en een psychologische geruststelling. Onder de noemer 'andere' werden zaken als een 'overzichtelijk en helder resultaatoverzicht', 'beter inzicht' en 'bewuster met zaken omgaan' aangehaald. Ook vermeldt een respondent 'de bijstand en verdediging bij fiscale controles'.

Figuur 10: Uiting van toegevoegde waarde van advies (N = 366)



Tot slot werd aan de respondent de mogelijkheid gegeven om een extra opmerking te formuleren aangaande adviserende diensten. Twaalf respondenten deden dit. De algemene tenor in die opmerkingen is echter niet overwegend positief voor de externe accountant.

Eenzijds geven enkele zaakvoerders aan dat ze geen gebruik maken van de adviserende diensten die de externe accountant aanbiedt, omdat ze niet op de hoogte zijn van het aanbod of omdat ze liever op een andere partij een beroep doen. 'We weten niet dat dergelijk advies/begeleiding mogelijk is bij onze externe accountant', schrijft een zaakvoerder hieromtrent. Een andere respondent stelt dan weer: 'Bepaalde diensten kunnen beter door anderen geadviseerd worden uit een specifieke sector.' Een andere respondent wijst op de mogelijke afwezigheid

van assertiviteit bij de externe accountant, en stelt: 'Heb dit allemaal niet gevraagd maar zou wel nuttig zijn mochten ze dat aanbieden zonder te vragen.' In dezelfde lijn stelt een andere zaakvoerder dat zijn externe accountant niet ver genoeg meegaat om problemen op te lossen.

Anderzijds wijzen enkele respondenten op het mogelijke gebrek aan kennis van de externe accountant. Die zaakvoerders schrijven: 'ze zijn over veel zaken niet goed ingelicht, te weinig kennis' en 'advies niet altijd correct'. Ook merkt een respondent op: 'Volgens mij kan de externe accountant niet op de hoogte zijn van alle in de eerste kolom vermelde activiteiten. Bijvoorbeeld een externe accountant is géén IT'er, géén marketeer, géén humanresourcespecialist ...' Een andere zaakvoerder stelt voor dat de externe accountant zich zou kunnen specialiseren in bepaalde sectoren, en schrijft: 'Specifieke problemen voor de sector (hier havenbedrijf). Welke facturen met of zonder btw? De externe accountant zou zich moeten specialiseren voor bepaalde economische sectoren.'

Verder geeft een andere zaakvoerder aan dat hij/zij geen behoefte heeft aan advies op het vlak van interne bedrijfsvoering. De zaakvoerder meldt: 'Een externe accountant moet ons bedrijf professioneel begeleiden binnen zijn vakgebied, niet ons bedrijf (mee)leiden en/of de strategie bepalen, daar zijn we zelf ondernemer voor.'

6.5. De invloed van de opgebouwde vertrouwensrelatie (hypothese 4)

Het vertrouwen van de zaakvoerder in de externe accountant wordt gemeten door de optelling van twee scores, met name de beoordeling op vijf eigenschappen van de externe accountant enerzijds en de duur van de relatie anderzijds (Bolton, 1998 in Blackburn *et al.*, 2010).

De vijf eigenschappen worden gedefinieerd in het onderzoek van Grönroos (1990, in Blackburn *et al.*, 2010). Het gaat om drie kenmerken met betrekking tot het zakelijke aspect (namelijk competentie, betrouwbaarheid en punctualiteit) en twee eigenschappen op interpersoonlijk niveau (namelijk empathie en vriendelijkheid). De vijf kenmerken worden in de enquête gemeten aan de hand van semantische differentiaal. De respondent krijgt daarbij telkens twee tegenpolen (bijvoorbeeld aan de linkerzijde onbetrouwbaar en aan de rechterzijde betrouwbaar) met tussenin vijf gradaties. Hij/zij dient dan aan te geven hoe hij/zij de externe accountant beoordeelt door een van de vijf bolletjes aan te duiden.

De gemiddelde beoordelingen op een schaal van 1 tot 5 kan men in tabel 12 terugvinden. De beoordelingen op de vijf ei-

genschappen zijn over het algemeen positief. Vooral op de kenmerken betrouwbaarheid en vriendelijkheid scoort de externe accountant zeer hoog. De externe accountant krijgt in het algemeen de minst hoge quotering op de eigenschap empathie. In tegenstelling tot bij de andere schalen, geeft de meerderheid van de respondenten hier geen maximumscore.

Tabel 12: Gemiddelde beoordeling op de vijf eigenschappen van vertrouwen

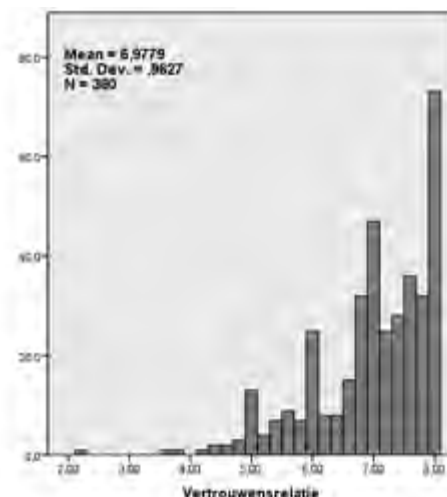
Eigenschap	Gemiddelde score
Competentie	4,42
Betrouwbaarheid	4,57
Punctualiteit	4,38
Empathie	4,15
Vriendelijkheid	4,55

N = 380

Om de duur van de zakelijke relatie te meten, wordt er gevraagd aan de respondent om aan te geven hoe lang hij/zij reeds klant is bij de externe accountant. Er zijn drie opties, '0-3 jaar', '4-8 jaar' en 'Meer dan 8 jaar'.

De eerste term van de som is bijgevolg een continue variabele die kan variëren van 1 tot 5. De tweede term van de som is een intervalvariabele die drie waarden kan aannemen. De totale som representeert de sterkte van de vertrouwensrelatie en kan dus minimaal gelijk zijn aan 2 en maximaal gelijk zijn aan 8. De verdeling van de som wordt in figuur 11 weergegeven, en doet vermoeden dat er een sterke vertrouwensrelatie is bij een groot deel van de respondenten.

Figuur 11: Vertrouwensrelatie met de externe accountant (N = 380)



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Hypothese 4 stelt dat zaakvoerders die een vertrouwensrelatie ervaren met de externe accountant, meer gebruikmaken van zijn adviserende diensten. Om dat te testen, berekenen we de correlatie tussen de vertrouwensrelatie en het aantal gevraagde

de categorieën van advies aan de hand van Pearsons correlatiecoëfficiënt r . Deze test is geoorloofd aangezien er voldaan is aan de lineariteitsvereiste.

Tabel 13: Bivariate correlatie: vertrouwensrelatie en aantal gevraagde categorieën van advies

		Vertrouwensrelatie	Aantal gevraagde categorieën van advies
Vertrouwensrelatie	Pearson Correlation	1	,138**
	Sig. (2-zijdig)		,007
	N	380	380
Aantal gevraagde categorieën van advies	Pearson Correlation	,138**	1
	Sig. (2-zijdig)	,007	
	N	380	380

** Correlatie is significant op het 0.01-niveau (2-zijdig).

Het resultaat is weergegeven in tabel 13, en wijst op een licht positieve correlatie tussen het niveau van vertrouwen en het aantal gevraagde categorieën van advies. De p-waarde wijst voorts op de significantie van deze correlatie. Respondenten met een hoger niveau van vertrouwen doen aldus een beroep op meer categorieën van advies.

Voor de volledigheid testen we ook de correlatie tussen de vertrouwensrelatie en de frequentie van de vraag naar adviserende diensten bij de externe accountant in het voorgaande jaar. Naast het aantal gevraagde categorieën van advies, vormt immers ook de frequentie een weergave van de kwantiteit van het gevraagde advies.

Tabel 14: Bivariate correlatie: vertrouwensrelatie en frequentie vraag om advies

		Vertrouwensrelatie	Frequentie vraag om advies
Vertrouwensrelatie	Pearson Correlation	1	,082
	Sig. (2-tailed)		,121
	N	380	361
Frequentie vraag om advies	Pearson Correlation	,082	1
	Sig. (2-tailed)	,121	
	N	361	361

Het resultaat van deze test, weergegeven in tabel 14, wijst echter op de afwezigheid van een significante correlatie tussen de twee variabelen. Hypothese 4 kan daarom niet geheel worden aanvaard.

7. BESLUIT

In dit artikel hebben we tot doel om de rol van de externe accountant in Vlaamse micro-ondernemingen in beeld te brengen. De informatie werd ingewonnen door middel van een online-enquête, die op een relatief grote respons kon rekenen. Daaruit bleek dat meer dan 96 % van de respondenten effectief een beroep doet op een externe accountant, en dat daarbij 91 % zelfs gebruikmaakt van diens adviserende diensten.

Zonder in details te treden, kunnen we stellen dat de standaarddiensten voor de micro-ondernemingen wel degelijk

een toegevoegde waarde lijken te hebben, maar dat de helft wel aangeeft gebaat te zijn met extra informatie omtrent hun financiële resultaten. Het is voor de externe accountant mogelijks opportuun om aan die behoefte tegemoet te komen en de boekhoudkundige resultaten op andere manieren voor te stellen aan de klant. Andere mogelijke verbeteringen in de traditionele dienstverlening zijn een onlineplatform en meer actuele informatie betreffende de financiële prestaties.

Wat de vraag naar adviserende diensten betreft, wordt de externe accountant het vaakst geraadpleegd voor advies dat we kunnen aanmerken als zijnde zijn corebusiness. Dat advies wordt voorts ook positief beoordeeld door de zaakvoerders die er gebruik van maakten. De toegevoegde waarde uit zich vooral in een financieel en een psychologisch voordeel. Voor andere soorten advies kiezen de zaakvoerders van micro-ondernemingen eerder voor alternatieve adviseurs en wanneer

ze de externe accountant er wel voor raadplegen, ervaren ze dat advies niet meteen als waarde toevoegend.

Enerzijds kunnen we dus concluderen dat indien de externe accountant in de toekomst uit zijn traditionele rol wil stappen en op een succesvolle manier een bredere waaier aan adviserende diensten wil aanbieden, hij/zij in de eerste plaats extra kennis zal moeten verwerven. Een grotere bagage aan kennis zou kunnen resulteren in een hogere klanttevredenheid. Bovendien zal een assertievere houding en een groter inlevingsvermogen eveneens op een positieve wijze bijdragen tot dit succes.

Anderzijds kunnen we stellen dat de corebusiness van de externe accountant tot op de dag van vandaag nog steeds het meest succesvol is. Van dit succesrijke recept afstappen, is mogelijkwijze nog niet meteen opportuun. Een diepgaande kennisvergaring of specialisatie op het vlak van corebusiness-advies kan een oplossing bieden in de toekomst indien de traditionele standaarddiensten verder eroderen. Men kan dan specifiek denken aan adviserende diensten met betrekking tot fiscaliteit, waardebeoordelingen, fusies en splitsingen of zelfs exclusief bepaalde deelaspecten binnen deze domeinen.

Het is onze hoop dat we met dit exploratieve onderzoek in enige mate de vooropgestelde bijdrage hebben geleverd naar de accountants en boekhouders, naar de kmo-zaakvoerders en naar de regelgevende instanties toe. We zijn ons er weliswaar van bewust dat nog vele vragen onbeantwoord blijven, zoals: wat verklaart de positieve perceptie ten aanzien van de standaarddiensten? Waarom doen sommige micro-ondernemingen geen beroep op de externe accountant? Wat is het belang van de graad van vertrouwen etc.? We hopen dan ook dat dit artikel de aanzet kan zijn naar verder, meer diepgaand wetenschappelijk onderzoek. Andere metingen van de variabelen, de integratie van multiple regressies etc. kunnen meer inzichten bieden in deze boeiende materie.

BIOGRAFIE

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