

# How small business advisory program delivery methods (collective learning, tailored, and practice-based approaches) affect learning and innovation

Sawang, S, Parker, R & Hine, D

Author post-print (accepted) deposited by Coventry University's Repository

**Original citation & hyperlink:**

Sawang, S, Parker, R & Hine, D 2016, 'How small business advisory program delivery methods (collective learning, tailored, and practice-based approaches) affect learning and innovation' *Journal of Small Business Management*, vol 54, no. 1, pp. 244-261

<https://dx.doi.org/10.1111/jsbm.12142>

DOI 10.1111/jsbm.12142

ISSN 0047-2778

ESSN 1540-627X

Publisher: Wiley

**This is the peer reviewed version of the following article: Sawang, S, Parker, R & Hine, D 2016, 'How small business advisory program delivery methods (collective learning, tailored, and practice-based approaches) affect learning and innovation' *Journal of Small Business Management*, vol 54, no. 1, pp. 244-261, which has been published in final form at <https://dx.doi.org/10.1111/jsbm.12142>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving.**

Copyright © and Moral Rights are retained by the author(s) and/ or other copyright owners. A copy can be downloaded for personal non-commercial research or study, without prior permission or charge. This item cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder(s). The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holders.

This document is the author's post-print version, incorporating any revisions agreed during the peer-review process. Some differences between the published version and this version may remain and you are advised to consult the published version if you wish to cite from it.

# **How small business advisory programme delivery methods affect learning and innovation**

## **Abstract**

Past studies relate small business advisory programme effectiveness to advisory characteristics such as advisory intensity and scope. We contribute to existing literature by seeking to identify the impact of different advisory programme methods of delivery on learning and subsequent firm innovation behaviour. Our research is based on a survey of 257 Australian firms completing small business advisory programmes in the three years preceding the research. We explore the range of small business advisory programme delivery methods in which our surveyed firms participated and, with reference to the literature on organisational learning and innovation, we analyse predictors of firms' learning ability and innovativeness based on the identified delivery methods. First, we found that business advisory programmes that involved high levels of collective learning and tailored approaches enhanced firms' perceptions of their learning of critical skills or capabilities. We also found that small business advisory programmes that were delivered by using practice-based approaches enhanced firms' subsequent organisational innovation. We verified this finding by testing whether firms that have participated in small business advisory services subsequently demonstrate improved behaviour in terms of organisational innovativeness, when compared with matched firms that have not participated in an advisory programme.

## **Keywords**

Business advice, SMEs, innovation, learning

# **How small business advisory programme delivery methods affect learning and innovation**

## **Introduction**

The use of publicly-funded business advisory support has gradually increased throughout the manufacturing and service sectors (Bennett and Robson, 1999b). This is because there is increasing evidence that small business advisory programmes improve firms' growth and performance (Bennett, 2008; Mole et al., 2009). Firms can thus increase their competitive advantage by increasing strategic knowledge through these business advisory programmes (Bennett and Robson, 2004). Based on empirical evidence, improving SMEs' performance leads to an increase in overall economic performance, therefore government pays specific attention to providing effective business advisory support (Porter and Ketels, 2003).

Past studies relate advisory programme effectiveness to advisory characteristics such as advisory intensity and scope of advice (e.g. Robson and Bennett, 2000; Kusters and Obschonka, 2011). For example, Kusters and Obschonka (2011) examined the effectiveness of business advice based on the intensity of the programme, which was measured in terms of the provision of ongoing support and repeated, regular, contact between the advisors and the firms. The authors concluded that programmes incorporating more intensive advice had a greater impact on businesses than less intensive advisory programmes. Similar findings were reported by Mole and colleagues (2011) when they examined the effectiveness of advisory programmes based on breadth and depth of the advice. Their results indicated that a more in-depth approach in which advisors spent more time assisting a smaller proportion of SMEs worked better in terms of maximising the impact on firm performance.

Our study contributes to existing literature on the impact of business advice delivery methods on firm outcomes. The effectiveness of small business advisory programmes is not

only about ‘what’ the advisors deliver (the content of advice), but also about ‘how’ programmes are delivered (the delivery method) (Bennett and Robson, 2004). Our contribution is distinguishable from prior research, which has focused on the intensity of advice, in that it looks at a range of other delivery method characteristics. We explore the range of small business advisory programme delivery methods in which our surveyed firms participated and, with reference to the literature on organisational learning and innovation, we analyse predictors of firms’ learning ability and innovativeness based on the identified delivery methods. We also compare the level of firms’ innovativeness with a matched sample of assisted and unassisted firms.

The remainder of this paper is organised as follows. In the next section we review the business advisory literature. In the following two sections we then identify the delivery approaches for business advisory programmes – the subject of this research – and include the hypothesis development. Following this we focus on the data, method, analysis and results. The final sections conclude the paper with a discussion of the implications of the results.

### **Small business advisory services**

The provision of business advisory services has become a major aspect of business improvement (Bennett et al., 2000). Although some studies found no positive, or only partial, impact (Kosters and Obschonka, 2011), there is some evidence of a positive effect from business advisory services on SMEs’ growth and performance (e.g. Harrington et al., 1991; Bryson et al., 1997; Ramsden and Bennett, 2005; Bennett, 2007; Mole et al., 2009). Bennett (2007) assessed the economic effect of government advisory services in the United Kingdom and found that recipient SMEs demonstrated improved profitability and return on investment. Both Ramsden and Bennett (2005) and Bennet (2007) conclude there is a positive link between business advisory services and SMEs’ growth, measured by business

turnover and profitability. Another study by Mole and colleagues (2008) also confirmed the positive effect of business advisory services on sales and employee growth.

Although there is evidence of a positive link between business advisory services and firm performance, there is increasing interest in how different types of advisory programmes differentially impact on firm outcomes. Past research suggested that the type of interaction between recipient firms and business advisors influenced the level of impact of the business advisory service (e.g. Ramsden and Bennett, 2005; Bennett, 2007; Mole and Keogh, 2009). The interaction was measured by number of contacts between advisors and the firm and the programme duration. Similar to previous studies, Mole et al. (2008) compared the economic effect of intensive and non-intensive advisory programmes. The intensiveness of the programme was classified by the degree of interaction—that is non-intensive programmes were ‘one-off’ events while intensive programmes involved the provision of a service over an extended period of time. The finding demonstrated that advisory programmes which incorporated an intensive delivery approach had a better influence on economic effect.

A recent study by Mole and colleagues (2011) looked beyond the degree of interaction and proposed that the intervention strategy of the business advisory service also influenced business growth. The author classified the strategy based on the level of financial spending per intervention and the proportion of assisted firms (Mole et al., 2011). The findings suggested that the more focused, high investment assistance yielded a better impact on business growth. The weakest strategy was found to be when the business advisory service aimed to provide a relatively inexpensive service to a relatively high proportion of firms. Although we have learnt from previous studies that both the extent of interaction with advisors and the nature of the intervention strategy affects business growth, little is known about other variations in delivery methods and their potential impact on firm outcomes.

Our study expands previous research by examining the effect of business advisory services on organisational learning and organisational innovativeness from a delivery approach perspective. We define organisational learning as abilities and new knowledge that firms acquire from participating in business advisory programmes. Organisational innovativeness is defined as changes in products, services or processes of the firm (Damanpour, 1991).

In this paper we examine business advisory programmes which were delivered by a public agency, QMI Solutions.<sup>1</sup> Four major advisory programmes were identified: ‘Ideas to Market’,<sup>2</sup> ‘Microscope Action Plan’ (MAP), ‘Technology Access Programme’ (TAP) and ‘Lean Manufacturing’. “Ideas to Market” program focuses on training SMEs accessing to new ideas, knowledge and technologies, to enable businesses to become more innovative, efficient and competitive. MAP and TAP are aim to drive manufacturing performance meeting with international standard through process and technology knowledge. Lean Manufacturing program is designed to train SMEs in relation to inventory management, capacity building, effective communication, and operation efficiency. Nonetheless, the common goal of these programmes is to promote entrepreneurial and innovative capabilities.

Government subsidy between 25% and 100% to attend these programs was available depending on various conditions. There was no specific eligibility to attend these programs. General participated firm’s characteristics can be described as firms that were uncertain with their own problems, sought for solutions to problem or wanted to improve their performance. Firms that participated in one of these programs have been approached directly by QMI. In addition, firms heard about QMI programs from past participants, industry network or

---

<sup>1</sup> QMI solutions is an independent not-for-profit organisation partly funded by government whose aim is to promote manufacturing excellence through a range of activities including research and training to support the implementation of world’s best practice and technologies in manufacturing firms.

<sup>2</sup> This service is delivered by the Australian Institute for Commercialisation, a sub-division of QMI.

through QMI events attendance. Prior to the program attendance, firms went through a need analysis process using different tools ranging from basic discussion with senior management to sophisticated questionnaire covering organisation and culture; manufacturing cycle times, quality, plant and equipment, innovation, engineering operations and practice, product development process and business management. Then tailored workshops (ranging from one to five days) were delivered on site addressing emerged issues with follow up session (up to 12 months after the initial workshop).

Through nine interviews with programme trainers and managers who participated these programs, we identified that there were a variety of delivery methods used by different trainers within and across each of these programmes. We identified three major business advisory programme delivery characteristics: collective learning, tailoring of content and practice-based approaches. The details of each approach are discussed in the following sections.

### **Organisational learning**

A key objective of many small business advisory programmes is for firms to learn new skills and capabilities. We draw on the literature on adult and organisational learning to develop an understanding of how small business advisory methods are likely to impact on the learning of skills and capabilities. Knowledge is generated through social processes when people are willing to work together and share their stories. Learning occurs when organisational members observe and learn from other organisations (Levinson and Asahi, 1995). Collective learning thus enhances organisational learning of critical skills or abilities. Further, when a business advisory programme is tailored to the organisation's needs, it engages the learner in the learning process and is therefore more likely to enhance learning outcomes (Brown and Duguid, 1998). Drawing on the learning literature, the following discussion explains the way

in which collective learning experiences and tailoring in small business advisory programmes might impact on learning.

### *Collective learning approach*

A potentially important mechanism through which small business advisory programmes facilitate learning is through the creation of social exchange. The process of social exchange is the mechanism through which knowledge and meaning are created and, as such, small business programmes potentially enable learning by creating relationships and interactions that allow for collective learning (Wenger and Snyder, 2000; Wenger, 1998). Collective learning involves the development of common visions, collective goals, a sharing of experiences and group decision-making (Hoban, 1999: 171-172). Hoban explains that the key attribute of learning communities is the ‘social emphasis on learning’ (1999: 172). Learning communities involve action learning in which colleagues address relevant problems, reflect on their practice, share ideas and provide feedback (Hoban, 1999: 175). Organisations create knowledge through socialisation (Nonaka and Takeuchi, 1995). Socialisation involves individuals grouping together and sharing what they experienced or what they know. By sharing experiences and hearing stories, individuals within a firm will collectively learn common phenomena and unwritten rules about how to respond to business problems (Järvinen and Poikela, 2001).

Further, social interactions play an essential role in fostering the ability of firms to think creatively and to minimise egocentric perceptions of a business problem (Meyers, 1991; Roglio and Light, 2009). Importantly, the collective learning experience enables learners to confront questions raised by others, consider perspectives that had not previously been considered, share difficulties and problems, and become aware of problems that were previously unrecognised (Meyers, 1991; Roglio and Light, 2009).



### *Tailoring of content approach*

While a number of small business training programmes use the traditional trainer-centred model, in which knowledge is transmitted from the trainer to the learner(s), it is gradually being replaced by an alternative model which is learner-centred, in that it is focused on learners' needs, rather than pure knowledge transmission (Brookfield, 1991; Duffy and Cunningham, 1996). This distinction can also be understood in terms of whether the Business advice is 'operational' or 'strategic' in focus (Hjalmarsson and Johansson, 2003). With operational services the objective of the programme is determined prior to the beginning of the service. This type of business advice is static and the relationship between the advisor and the business is that of expert-client. In contrast, some business advisors deliver strategic services to SMEs, which are more dynamic and in which the issues addressed in the service are generated by interplay between the advisor and the business over time. This latter type of service is 'learner-centred' and does not depend exclusively on the transmission of expert advice.

Business advisory programmes that employ this tailoring of content method use facilitators (rather than trainers) as resource managers, encouraging firms to bring their experiences and beliefs into the learning process. Individuals learn best when they are engrossed in the topic and they are motivated to seek out new knowledge and skills because they need them in order to solve problems at hand (Norman and Spohrer, 1996). To achieve the best learning outcome, business advisory services should be tailored to organisational needs. Business advisory services should deliver programmes that align with identified organisational problems (Lundström and Stevenson, 2005).

H1: Business advisory programmes which are delivered by focusing on a collective learning approach will positively predict organisational learning of critical skills or capabilities.

H2: Business advisory programmes which are delivered by focusing on a tailored approach will positively predict organisational learning of critical skills or capabilities.

### **Organisational innovativeness**

Innovation involves firms making active changes in products, services or processes (Damanpour, 1991). While we would expect organisational learning outcomes to depend on a collective learning experience and the tailoring of programme content as described above, we argue that organisational innovativeness involves changes in behaviour and therefore depends on participation in practice-based advisory programmes which involve the adoption of immediate changes within the firm. That is, a change in behaviour is best achieved through an advisory programme in which the learner is active, rather than passive, and in which the learner is engaged in doing things in their own business. The following section explains how practice-based learning approaches influence organisational innovation.

#### *Practice-based approach*

The practice-based approach focuses on integrating thought and action through reflection (Schön, 1983). Facilitators encourage programme participants to become researchers in the context of practice, to be free from established theory and techniques and to be able to construct a new theory to fit the firm's situation. Business advisory programmes which adopt a practice-based approach stimulate participants to evaluate their problem and context and determine if the proposed solutions can actually be applied in their context (Marsick, 1988). Participants can learn theoretical knowledge (e.g. learning about new available technology), but without practical knowledge (e.g. how to apply such a technology in their business operation) they cannot effectively innovate or adopt new technology (Brown and Duguid, 2001). Knowing that the technology exists does not lead to effective implementation or

innovation. Brown and Duguid (2001) therefore argue that to achieve innovation involving the useful application of knowledge a practice-based learning approach is required.

Knowledge is a productive resource for innovation (Johannessen et al., 1999). Business advisory programmes which adopt a practice-based approach require programme participants to learn by using, doing and experimenting, through informal brainstorming meetings, using metaphors, stories and analogies. Thus, participants learn to apply knowledge in practice and to innovate by creating new products and services, or to add value to existing ones (Seagal and Horne, 1997).

To increase innovativeness, firms should be able to better understand what they know and how to implement that knowledge in practice (Schön, 1992). Through practice-based approaches, firms learn to critically evaluate their business environment, make sense of it, and figure out implications for action (Teece, 2007). Business advisory programmes that adopt a practice-based approach will focus on authentic situations rather than theoretical scenarios. As a result, programme participants develop skills that can detect latent demand, the structural evolution of industries and markets, and likely supplier and competitor responses (Teece, 2007) which then lead to firms' improvement of their innovativeness in various aspects, such as product, core business and organisational processes (Damanpour, 1991). Through a practice-based approach, individual firms develop skills to coordinate and adapt in relation to changing environments which results in changes in their business practices (Augier and Teece, 2008).

H3: Business advisory programmes which are delivered by focusing on practice-based approaches will positively predict firms' innovativeness.

## **Method**

In this section we discuss the sources of our data and our data collection procedure. We also provide measures that were used in our survey as well as validation information.

### *Participants and procedure*

The population of interest included all small to medium sized firms that participated in one or more business advisory programmes over the past three years. We contacted senior management or business owners of every firm ( $N = 562$ ) that participated in one of these programmes for the telephone survey which employed the use of a computer-assisted telephone interviewing (CATI) system. This method allows interviewers to clarify answers from respondents during the data collection and to obtain more substantive answers (Greenfield et al., 2000). A total of 257 firms agreed to participate in the study (a response rate of 45.73%). The majority of firms attended at least one business advisory programme and 26 firms reported that they had participated in 10 or more business advisory programmes. Firms' demographic information is displayed in Table 1.

-----  
INSERT TABLE 1 ABOUT HERE  
-----

Storey (2000, 2003) commented that many evaluations of business advisory service programmes only go as far as measuring satisfaction with the programme. Our study thus attempted to employ the most advanced stages of 'six steps to heaven', suggested by Storey (2000), in assessing business advisory services' impact. The six steps are:

1. Measuring the number of participating firms as an indicator of the programme's impact.

2. Analysing assisted firms' satisfaction with the programme.
3. Measuring assisted firms' views regarding the difference made by the assistance on their business performance.
4. Undertaking a comparison of the performance of assisted firms with 'typical' firms from the general population.
5. Undertaking a comparison of assisted firms with a sample of firms from the general population of firms that have been 'matched' with the assisted population on key demographic characteristics likely to impact on business performance.
6. Using a random panel approach in which firms are randomly excluded from participation in the programme and their performance compared with assisted firms over time.

The first phase of our analysis (Hypotheses 1 and 2) was concerned with firms' perceptions of the skills and abilities they acquired from participation in the programme – this reaches the third step of Storey's (2000) 'six steps to heaven' involved in assessing SME policy impact. As this stage of the research was focused on learning from the programme we necessarily had to rely on firms' perceptions of the impact of the programme. However, for the second phase of our analysis (Hypothesis 3), we were interested in changed behaviour in the form of firms' subsequent organisational innovative behaviour. For this phase of the analysis we were able to reach step 5 of Storey's (2000) 'six steps to heaven' by using matched samples. We did not use a random panel approach (sixth step) because it would have involved an ethical challenge to undertake this step in research on publicly-funded SME programmes, because it would involve randomly excluding firms from support, at least in the short-term (Storey, 2000).

We matched our data (assisted firms) with unassisted firms, drawing on the Australian Bureau of Statistics (ABS) survey which was collected on behalf of the Australian federal government during 2009-2010. This survey comprised self-administered, structured, questionnaires containing essentially closed questions. The ABS collected information on business activities and business characteristics which were relevant to organisational performance. All SMEs in the Australian economy were included except for business units in non-employing businesses and government enterprises. In the ABS sample, there were 1,690 firms that did not receive business advice in the form of government assistance.

Following Storey's (2000) recommendation we matched the firms in relation to key demographic characteristics such as industry sector, location of main market and firm size. By matching firms in this way we were able to 'control' for potentially extraneous influences on firm innovation in the two samples. This ensured that differences in the levels of firm innovation between the two groups could more confidently be explained with reference to whether or not firms participated in a small business advisory programme.

### *Measures*

*Programme delivery approach.* We developed the new measures for programme characteristics based on our nine interviews with program managers and trainers. Three major themes emerged from the interviews regarding the delivery approaches which were used in the business advisory programme. These themes were *collective learning*, *tailored* and *practice-based approaches*. Each measure employed a five-point Likert scale, '1 = not at all' and '5 = a great deal'. A list of questions is reported in the Appendix.

*Collective learning approach.* This construct measures the degree that business advisory programmes encourage firms to learn from each other. The respondents were asked

to rate the nature of the programme, a sample item included '*In this programme,<sup>3</sup> participants shared business know-how with other participants in the programme.*' The Cronbach's alpha for collective learning was .71, indicating good reliability.

*Tailoring of content approach.* This construct measures to what extent the business advisory programme was tailored to each firm's context and needs. The respondents were asked to rate the programme, a sample item included '*This programme was tailored to the specific needs of my enterprise.*' The Cronbach's alpha for collective learning was .78, indicating good reliability.

*Practice-based approach.* This construct measures the degree of business advisory programmes' use of practical methods such as reflection on business practice and the adoption of changes within the business. The respondents were asked '*To what extent do you agree that this programme used \_\_\_\_\_ as a part of learning process?*' The Cronbach's alpha for collective learning was .82, indicating good reliability.

*Organisational innovativeness.* We adopted questions from the Business Longitudinal Survey (Australian Bureau of Statistics, 2009) measuring firms' organisational innovativeness in terms of changes in products, processes and core business. The respondents were asked '*To what extent did the business make changes to the following during the last financial year?*' A list of questions is reported in the Appendix. The Cronbach's alpha for organisational innovation was .81, indicating good reliability.

*Organisational learning.* This was a single item and respondents were asked to rate the following question using a five-point Likert scale '1 = strongly disagree' and '5 = strongly agree': '*To what extent do you agree or disagree that your enterprise has been successful in learning critical skills or capabilities from participation in this programme?*'

---

<sup>3</sup> The respondents were asked to name all participated programs in the past three years and then were asked to identify the program with the most impact on their enterprise.

*Controls.* Previous research shows that firm characteristics such as size, revenue and industry sector may influence programme outcomes (Kafouros et al., 2008). The number of participants from each firm may impact on the level of collective learning which is important for innovation performance. Therefore, we included these variables as controls in our analysis. We also controlled for firms' motivation to seek advice. Firms that seek business advice are often more dynamic, growth-oriented and have more highly motivated owners/managers than firms that do not seek business advice (Deschoolmeester et al., 1997; Mole et al., 2011). Therefore, firms that participate in business advisory programmes may be highly innovation-oriented and that would result in high levels of innovative behaviour even without attending a business advisory programme. To minimise this potential bias we controlled for motivation to seek advice. Participants were asked to report their motivation to attend the business advisory programme. We categorised two types of motivations: firms who were driven by internal motivation (e.g. increasing competitiveness or gaining more knowledge) and external motivation (e.g. cost subsidy availability).

### **Construct validity**

Construct validity was tested using factor analysis. All independent construct items loaded uni-dimensionally on one factor and had no significant cross-loadings with other factors. Cross-loadings were all well below the cut-off of .40 suggested by Raubenheimer (2007) and our factor loadings were all above .50, which is considered a good loading (Hair et al., 1998). Three factors (namely collective learning, programme modification and programme practicality) were found to have eigenvalues over 1.0, explaining 64.45% of the total variance.

### **Results**



In this section we compare the level of organisational innovativeness between assisted and unassisted firms. Given that our samples are matched, we have improved confidence that differences in innovation performance between the two groups can be attributed to the fact that one group has completed a business advisory programme. Second, we examine the impact of different programme delivery approaches on learning and organisational innovativeness.

*A comparison of organisational innovativeness between assisted and unassisted firms*

We found that between 45% and 69% of firms which participated in an advisory programme reported that they introduced changes to their products/services, operational systems, managerial processes or market penetration (see Table 2). Amongst the matched sample of 226 firms that did not participate in an advisory programme only between 20% and 24% reported innovations in those same areas.

-----  
 INSERT TABLE 2 ABOUT HERE  
 -----

*The impact of business advisory programme delivery approaches: Hypothesis testing*

Table 3 provides the bivariate correlation coefficient for all variables in the current study. Organisational innovation was positively correlated with collective learning ( $r = .27, p < .01$ ), tailored ( $r = .27, p < .01$ ) and practice-based approaches ( $r = .43, p < .01$ ). Organisational learning was also positively associated with collective learning ( $r = .37, p < .01$ ), tailored ( $r = .46, p < .01$ ) and practice-based approaches ( $r = .28, p < .01$ ). None of the control variables significantly correlated with organisational innovation or learning outcomes, except industry which was marginally significantly associated with learning outcomes ( $r = .13, p < .05$ ).

-----  
 INSERT TABLE 3 ABOUT HERE  
 -----

To examine the role of programme delivery approaches on organisational learning and innovation outcomes specified by the research hypotheses, two identical hierarchical multiple regression analyses were constructed. To control possible confounding variables, firm characteristics (industry, size, tenure and revenue), number of participants from each firm, duration of programme and motivation to seek advice were entered into each equation at step one. To test the main effect of programme delivery approaches, collective learning, tailored and practice-based approaches were entered at step two.

The initial two steps in the regression equations explained 23% of the variance in organisational innovativeness ( $F(11, 206) = 5.29, p < .001$ ) and 29% of the variance in organisational learning ( $F(11, 206) = 7.12, p < .001$ ). With the exception of motivation to seek advice, the control variables did not significantly influence our results as none of them obtained significant regression coefficients. The results show that internal ( $\beta = .17, t = 2.37, p < .05$ ) and external motivations ( $\beta = .18, t = 2.47, p < .05$ ) influenced innovativeness. We also found that only internal motivation ( $\beta = .20, t = 2.98, p < .05$ ) significantly influenced organisational learning, but not external motivation ( $\beta = .12, t = 1.77, ns$ ). By including motivation to seek advice as a control in our analysis it demonstrated that the following results accounted for these confounding factors.

Our results in Table 4 demonstrates that organisational innovativeness was significantly positively predicted by the practice-based approach ( $\beta = .41, t = 5.13, p < .001$ ), thus Hypothesis 3 was supported. Organisational learning of critical skills or capabilities was

significantly positively predicted by the collective learning approach ( $\beta=.13, t=2.07, p<.05$ ) and tailored approach ( $\beta=.41, t=4.90, p<.001$ ), thus Hypotheses 1 and 2 were supported.

Although it was not hypothesised, we also examined a possible moderation effect but did not find any significant results.

-----  
INSERT TABLE 4 ABOUT HERE  
-----

## **Discussion**

This paper investigated the relationship between delivery approaches used in business advisory programmes and their impact on the learning of skills and abilities and organisational innovativeness. Our contribution is twofold. First, we demonstrate that firms that participate in small business advisory services report higher levels of subsequent innovation behaviour than matched firms that do not participate in such services. Our study therefore proposes that business advisory services can be considered an antecedent of firms' innovation behaviour. Second, we provide insights into how the delivery style of advisory programmes affects organisational learning and subsequent innovation behaviour.

While many studies have focused on the economic effect of business advisory services, the question of 'what are effective ways to deliver the services' has been largely ignored in previous evaluations (Mole et al., 2011). Due to the nature of business advisory services, which are described as intangible services with dependent relationships between advisors and participating firms, past research focused on interaction intensity as a key factor driving impact (Bennett and Robson, 1999a). Interaction intensity is measured by the number of contacts, number of participants and programme duration. In our study these

measures of intensity were shown to have made no, or minimal, impact on the effect of the business advisory service on learning and innovation. This finding may suggest that the effectiveness of business advisory services can be explained by something other than the intensity of interaction.

The recent study by Mole and colleagues (2011) sheds some light on this area. Mole et al. (2011) proposed an alternative way to look at how business advisory services are delivered, proposing that advisory services are delivered in two ways: broader or deeper, differentiated by the level of financial resources spent per intervention and the proportion of assisted firms. Our study expands the broader versus deeper approach by 'looking under the hood' to identify how the business advisory services are delivered, based on programme managers' and facilitators' views. Instead of focusing on cost per intervention or service, we argued that other delivery elements are antecedents of firms' learning and innovation.

We found that business advisory services that were delivered by using collective learning and tailored approaches enhanced organisational learning of critical skills or capabilities. This finding is akin to previous literature, suggesting that when firms group together they learn collectively to find solutions for their problems by hearing stories and sharing their experiences (Järvinen and Poikela, 2001). Further, each firm's context is different, thus it is important for programme facilitators to ensure that the programme is tailored to suite organisational contexts and facilitate knowledge sharing for new knowledge creation (Zahra and George, 2002). We also found that the small business advisory services that were delivered by focusing on practice-based approaches enhanced organisational innovativeness. To stimulate changes within organisations, learning experiences should involve firms making changes in their business. When business advisory programmes encouraged participating firms to critically evaluate their business and adopt new approaches

to solving business problems they were more likely to make innovative changes responding to their dynamic environment (Augier and Teece, 2008).

There are some limitations to our study that should be acknowledged. Our research involved a retrospective design in which respondents were asked to recall characteristics of small business advisory programmes that they attended in the previous three years. This approach may create response bias or a recall limitation (Miller et al. 1997). Our study minimised this concern by using a telephone survey which enabled us to clarify questions for respondents and allowed us to exclude any respondents who could not describe the programme(s) that they attended (Forgues and Vandangeon-Derumez, 2001). Further, as our study involves a cross-sectional design, future research may examine the longitudinal impact of various programme delivery methods on small businesses' learning and innovation, as we might expect the impact of programmes to decline with time.

### **Conclusion and implications**

As there are limited resources available in the provision of small business advisory services, such services should be delivered strategically in order to maximise their impact. Our study has highlighted that the way in which business advisory services are delivered does matter. To enhance organisational learning, business advisory services should be custom designed to suite each participant firm and the programme should be facilitated in a way that programme participants can share and learn from each other. To encourage firms to improve their innovation behaviour, business advisory services should deliver practical experiences to programme participants which require them to make changes in their business.

Governments are often faced with a dilemma in designing publicly-funded business advisory services in terms of allocating spending priorities between generic or tailored service provision (Mole et al., 2011). Generic advisory services are generally focussed on

low financial resource consumption and involve once-off advice. Because of the fewer resources spent per firm, these types of programmes can achieve a relatively higher penetration rate (more firms can receive the service). On the other hand, tailored advisory services require a higher level of investment for each individual assisted firm, and thus a relatively lower penetration rate is achieved. However, targeted services are more likely to allow SMEs to learn new knowledge and skills for dealing with their situation (Mole and Bramley, 2006). Our research suggests that government investment in tailored services involving collective learning experiences is more likely to achieve learning outcome and involving the introduction of changes in the business is more likely to achieve innovation outcome. Therefore, these delivery methods are a more effective mechanism for achieving the aims of small business advisory programmes.

## Appendix

To what extent do you agree with the following statements regarding this programme?

### Collective learning approach

1. In this programme participants had similar needs to my enterprise.
2. In this programme, participants shared business know-how with other participants in the programme.
3. In this programme, I learnt a lot from the programme facilitator.
4. In this programme, I learnt a lot from other programme participants.

### Tailoring for content approach

1. This programme addressed the specific needs of my enterprise.
2. The programme facilitators understood my business context.
3. The knowledge in this programme was immediately useful in my business.

### Practice-based approach

1. This programme used 'implementation of changes within your enterprise' as part of the learning.
2. This programme used 'analysis of your own enterprise' as part of the learning.
3. This programme used 'instruction on best practice' as part of the learning.
4. This programme used 'reflection on your business practices' as part of the learning.

**Organisational innovativeness:** *To what extent did the business make changes to the following...*

1. Organisational/managerial processes.
2. Operational processes.
3. Management structure.
4. Business structure.
5. Changes in core business.
6. Changes in the range of products or services offered.

**Organisational learning of critical skills or capabilities:** *To what extent do you agree or disagree that your enterprise has been successful in learning some critical skills or capabilities from participation in this programme?*

## Funding

This work was supported by the Australian Research Council (grant number LP0776386)

## References

- Australian Bureau of Statistics. (2009). Technical manual: Business longitudinal database. (cat.no.8168.0.55.002). from ABS, Canberra
- Augier M and Teece DJ (2008) Strategy as evolution with design: The foundations of dynamic capabilities and the role of managers in the economic system. *Organization Studies* 29(8-9): 1187.
- Bennett R (2008) SME policy support in Britain since the 1990s: What have we learnt? *Environment and Planning C: Government & Policy* 26(2): 375-397.
- Bennett R and Robson P (2004) Support services for SMEs: Does the franchisee make a difference to the business link offer? *Environment and Planning C: Government and Policy* 22: 859-880.
- Bennett RJ (2007) Expectations-based evaluation of SME advice and consultancy: An example of business link services. *Journal of Small Business and Enterprise Development* 14(3): 435-457.
- Bennett RJ, Bratton WA, Paul J and Robson A (2000) Business advice: The influence of distance. *Regional Studies* 34(9): 813-828.
- Bennett RJ and Robson PJA (1999a) Intensity of interaction in supply of business advice and client impact: A comparison of consultancy, business associations and government support initiatives for SMEs. *British Journal of Management* 10(4): 351-369.
- Bennett RJ and Robson PJA (1999b) The use of external business advice by SMEs in Britain. *Entrepreneurship & Regional Development* 11(2): 155-180.
- Brookfield SD (1991) *Developing Critical Thinkers*. San Francisco, CA: Jossey-Bass.
- Brown JS and Duguid P (1998) Organizing knowledge. *California Management Review* 40(3): 91-111.



- Brown JS and Duguid P (2001) Knowledge and organization: A social-practice perspective. *Organization Science* 12(2): 198-213.
- Bryson JR, Keeble D and Wood P (1997) The creation and growth of small business service firms in post-industrial Britain. *Small Business Economics* 9(4): 345-360.
- Damanpour F (1991) Organizational innovation: A meta-analysis of effects of determinants and moderators. *The Academy of Management Journal* 34(3): 555-590.
- Deschoolmeester D, Schamp T and Vandebroucke A (1997) *The Influence of Management Training on the Entrepreneurial Attitudes and Managerial Techniques of Small Business-Starters (SMEs): A comparative study of business planning business-owners*. Paper presented at the Internationalizing Entrepreneurship Education and Training Monterey Bay, California.
- Duffy TM and Cunningham DJ (1996) Constructivism: Implications for the design and delivery of instruction. In: Jonassen DH (ed.) *Handbook of Research on Educational Communications and Technology*. New York: Scholastic, pp. 170-198.
- Forgues, B and Vandangeon-Derumez, I (2001). Longitudinal analyses. In Thietart RA (Ed.), *Doing Management Research. A Comprehensive Guide* (pp. 332-351). London: Sage Publications.
- Greenfield TK, Midanik LT and Rogers JD (2000) Effects of telephone versus face to face interview modes on reports of alcohol consumption. *Addiction* 95(2): 277-284.
- Hair JF, Anderson RE, Tatham RL and Black WC (1998) *Multivariate Data Analysis with Readings* (5 ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Harrington JW, MacPherson AD and Lombard JR (1991) Interregional trade in producer services: Review and synthesis. *Growth and Change* 22(4): 75-94.
- Hjalmarsson D and Johansson AW (2003) Public advisory services-theory and practice. *Entrepreneurship & Regional Development* 15(1): 83-98.

- Hoban, G (1999). The role of community in action learning: A Deweyian perspective. In Retallick J Cocklin B and Coombe K (Eds.), *Learning communities in education* (pp. 171 - 183).
- Järvinen A and Poikela E (2001) Modelling reflective and contextual learning at work. *Journal of Workplace Learning* 13(7/8): 282-290.
- Johannessen JA, Olsen B and Olaisen J (1999) Aspects of innovation theory based on knowledge-management. *International Journal of Information Management* 19: 121-140.
- Kafouros MI, Buckley PJ, Sharp JA and Wang C (2008) The role of internationalization in explaining innovation performance. *Technovation* 28(1-2): 63-74.
- Kosters S and Obschonka M (2011) Public business advice in the founding process: An empirical evaluation of subjective and economic effects. *Environment and Planning C: Government and Policy* 29(4): 577-604.
- Levinson NS and Asahi M (1995) Cross-national alliances and interorganizational learning. *Organizational Dynamics* 24(4): 50-63.
- Lundström A and Stevenson L (2005) *Entrepreneurship Policy: Theory and Practice*. New York: Springer.
- Marsick VJ (1988) Learning in the workplace: The case for reflectivity and critical reflectivity. *Adult Education Quarterly* 38(4): 187-198.
- Meyers C (1991) *Teaching Students to Think Critically*. San Francisco, CA: Jossey Bass.
- Miller CC, Cardinal LB and Glick WH (1997) Retrospective reports in organizational research: A reexamination of recent evidence. *The Academy of Management Journal* 40(1): 189-204.

- Mole K, Hart M, Roper S and Saal D (2008) Differential gains from business link support and advice: A treatment effects approach. *Environment and Planning C: Government & Policy* 26(2): 315-334.
- Mole K and Keogh W (2009) The implications of public sector small business advisers becoming strategic sounding boards: England and Scotland compared. *Entrepreneurship and Regional Development* 21(1): 77-97.
- Mole KF and Bramley G (2006) Making policy choices in nonfinancial business support: An international comparison. *Environment and Planning C: Government & Policy* 24(6): 885-908.
- Mole KF, Hart M, Roper S and Saal DS (2009) Assessing the effectiveness of business support services in England. *International Small Business Journal* 27(5): 557-582.
- Mole KF, Hart M, Roper S and Saal DS (2011) Broader or deeper? Exploring the most effective intervention profile for public small business support. *Environment and Planning A* 43(1): 87-105.
- Nonaka I and Takeuchi H (1995) *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.
- Norman DA and Spohrer JC (1996) Learner-centered education. *Communications of the ACM* 39(4): 24-27.
- Porter ME and Ketels HM (2003) *UK Competitiveness: Moving to the Next Stage*. DTI Economics Papers 3, Department of Trade and Industry, U.K.
- Ramsden M and Bennett R (2005) The benefits of external support to SMEs: 'Hard' versus 'soft' outcomes and satisfaction levels. *Journal of Small Business and Enterprise Development* 12(2): 227-243.
- Raubenheimer J (2007). An item selection procedure to maximise scale reliability and validity. *SA Journal of Industrial Psychology*, 30(4): 59-64.

- Robson PJA and Bennett RJ (2000) SME growth: The relationship with business advice and external collaboration. *Small Business Economics* 15(3): 193-208.
- Roglio KDD and Light G (2009) Executive MBA programs: The development of the reflective executive. *The Academy of Management Learning and Education* 8(2): 156-173.
- Schön DA (1983) *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.
- Schön DA (1992) *The Reflective Turn: Case Studies in and on Educational Practice*. New York: Teachers College Press.
- Seagal S and Horne D (1997) *Human Dynamics: A New Framework for Understanding People and Realizing the Potential in our Organizations*. Cambridge, MA: Pergasus Communications.
- Storey D (2000) Six steps to heaven: Evaluating the impact of public policies to support small business in developing economies. In: Sexton D and Landstrom H (eds) *The Blackwell Handbook of Entrepreneurship*. Oxford: Blackwell, pp. 176–192.
- Storey D (2003) Public policies to assist small and medium sized enterprises. In: Audretsch ZAA (ed.) *Handbook of Entrepreneurship Research*. London: Kluwer, pp. 473-511.
- Teece DJ (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13): 1319-1350
- Wenger E (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Wenger E and Snyder W (2000). Communities of practice: the organizational frontier. *Harvard Business Review*, January-February, 139-145.

Zahra SA and George G (2002) Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review* 27(2): 185-203.