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Enhancing SMEs' Responsiveness Through IT-enabled
Collaboration

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中小企業透過科技化合作促進回應能力之探討

摘要

近年來服務產業迅速的擴張與發展，對於經濟的影響力也不斷提升，其中中小型的企業(SMEs)扮演了相當重要的角色。先前許多研究顯示回應能力對於中小企業績效成長的重要性，然而卻少有文獻提及如何定義中小企業的回應能力與如何發展中小企業的回應能力。本研究從文獻回顧中分別定義出了三個層面的回應能力：市場感應能力、顧客連結能力與敏捷度。此外，我們認為中小企業可以透過資訊科技為基礎之協同合作促進本身的回應能力，提供更佳的服務給顧客，進而提升企業績效。因此，我們提出研究架構來驗證資訊科技為基礎之協同合作、企業回應能力以及企業績效三者之間的關係，並且選擇宜蘭縣枕頭山休閒農業區為我們的實驗對象。從研究結果中我們發現中小企業透過資訊科技為基礎之協同合作來提升回應能力並且也使績效有正向的成長。也幫助中小企業更了解如何運用科技化協同合作提升企業績效。

關鍵字：中小企業、回應能力、資訊科技化協同合作、企業績效、休閒農業

Enhancing SMEs' Responsiveness Through IT-enabled Collaboration

ABSTRACT

The service economy has been expanding recently, with small- and medium-sized enterprises (SMEs) playing an important role. Previous research has shown that responsiveness is one of the most important strategic capabilities that SMEs should consider for enhancing their performance; however, how to define responsiveness and how to develop it in the SME context are seldom discussed. A review of the literature leads us to propose three dimensions of responsiveness in the SME context: market sensing, customer linking, and promptness. Moreover, we propose that IT-enabled collaboration should facilitate this capability. We develop a research framework to examine the relations between IT-enabled collaboration, responsiveness, and organizational performance. To verify our research framework, a case study that was deployed in the Mt. Pillow Leisure Agricultural Area in Yilan County. We observe that SMEs can achieve higher level of performance after they have enhanced responsiveness through cooperation via the IT-enabled platforms. The results of this study can also help SMEs improve their performance by realizing the importance of responsiveness and how to enhance responsiveness through IT-enabled collaboration.

Keywords: SMEs, responsiveness, IT-enabled collaboration, performance, leisure agriculture

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1. INTRODUCTION

1.1. Research Motivations

Over the last few decades, small- and medium-sized enterprises (SMEs) have played an important role in the world's economy (Mira, 2006; Robles-Estrada & Gómez-Suárez, 2007; Eikebrokk & Olsen, 2007). In recent years, SMEs have constituted a growing proportion of the service sector.

Appiah-Adu and Singh (1998) found that SMEs are more service oriented than other enterprises in the service sector, and Flynn and Flynn (2004) suggest that service-oriented organizations need to have a common strategic capability for better organizational performance. Responsiveness is one of the most important strategic capabilities that should be considered for enhancing the performance of service organizations (Stalk & Hout, 1990; Teare, 1996). Responsiveness refers to the willingness to help customers and provide prompt service (Zeithaml et al., 1990). It contributes to organizations' ability to deal with changes in customer demands (Tsui, 1994; Sharifi & Zhang, 1999) and enhances organizational performance (Stalk, 1988). In the service industry, quality, speed and flexibility are associated with responsiveness (Zeithaml & Bitner, 2000). Customers are becoming more sophisticated in their needs and are increasingly demanding a higher standard of service. Therefore, when considering levels of performance as part of setting customer service objectives, service providers must take responsiveness into account as an important capability (Payne, 1995).

Responsiveness is critical to the success of SMEs in remaining competitive and sustaining high performance levels. However, SMEs often have limited funding, time, staff, resources and technologies. Therefore, a primary task for resource-limited

SMEs in emerging economies has been to develop low-cost and easily implemented measures to improve their sustainability and to increase their chances of success when faced with rapid and often unforeseen changes in their external environments.

One strategic response to increasing uncertainty is to establish collaboration between SMEs, often using information technology (IT) (Hitt et al., 2004; Sivadas & Dwyer, 2000; Bastos, 2001). Rosabeth Moss Kanter (1994) mentions that a well-developed ability to create and sustain fruitful collaborations gives organizations a significant competitive edge. Through IT-enabled collaboration, SMEs can become more responsive by searching and collecting information quickly and efficiently from their partners and customers, thus improving their sustainability (Varadarajan & Cunningham, 1995; Malecki & Tootle, 1996; Suarez-Villa, 1998).

In short, due to customers' growing influence, collaboration among SMEs through IT is increasingly important for enhancing responsiveness and thus performance. Nevertheless, little research has described how SMEs are responding to this challenge.

1.2. Research Objectives

Few existing studies have addressed the role of IT-enabled collaboration among both SME partners and customers in enhancing SMEs' responsiveness to improve their performance. The main purpose of our research is to study the relationships between IT-enabled collaboration, responsiveness, and organizational performance. Our study proposes that the performance of SMEs could be improved through IT-enabled collaboration, with the relationship between these two constructs mediated by responsiveness. Specifically, the objectives of this study are as follows:

- 1) To measure SME responsiveness.

- 2) To examine the relationship between IT-enabled collaboration and responsiveness.
- 3) To examine the relationship between responsiveness and organizational performance.

1.3. Research Questions

Given the theoretical positions taken for this study and the status of the field as briefly described above, this study aims to answer the following questions:

- 1) Why is responsiveness so important for SMEs?
- 2) How will IT-enabled collaboration enhance SMEs' responsiveness?
- 3) How does responsiveness relate to organizational performance?



2. LITERATURE REVIEW

To better understand how IT-enabled collaboration might enhance SMEs' responsiveness, it is first necessary to understand what IT-enabled collaboration is and who should collaborate. In addition, it is necessary to have a basic understanding of SMEs and of how responsiveness plays an important role in this context and in related contexts. The literature review is composed of two parts. We introduce responsiveness in the first part and IT-enabled collaboration in the second.

2.1. Responsiveness

As mentioned earlier, responsiveness is defined as the willingness to help customers and provide prompt service (Zeithaml et al., 1990). In the service industry, quality, speed and flexibility are all associated with responsiveness (Zeithaml & Bitner, 2000). Responsiveness is important to organizations' ability to deal with changes in customer demand (Tsui, 1994; Sharifi & Zhang, 1999) and to enhance organizational performance (Stalk, 1988).

As suggested by Carson (1990), the characteristics of SMEs are different from those of large enterprises. SMEs are likely to be flatter, more informal, and more flexibly structured organizations (Staniforth, 1994). For this reason, SMEs are usually more responsive in providing service that is more innovative and more customer-oriented, with quicker response times for implementing changes (Humphrey & Schmitz, 1995; Pelham, 2000; Walczuch et al., 2000; Hmelnitchi & Neamtu, 2009). Therefore, we can conclude that responsiveness is a crucial factor that enables SMEs to implement their marketing actions more productively, which in turn, delivers greater value to customers, enhancing the organizations' long-term survival.

A summary of the literature on responsiveness is shown in Table 2-1. We classified prior studies' definitions of responsiveness into three categories: (1)

Market-related, focusing on how organizations learn about changes in their market environment and adapt to changing market demands; (2) Customer-related, emphasizing how organizations manage their relationships with customers, including relation maintenance and understanding of customers; and (3) Time-related, highlighting an organization's response time.

Based on the three categories mentioned above, we defined three types of responsiveness capabilities in our research: (1) Market-sensing capability, which is a process for learning about present and prospective market environments; this capability enables firms to formulate, test, revise, update and refine their market views, which are simplified representations of the market and how it works (Day, 1994; Anderson & Narus, 2007). (2) Customer-linking capability, which is an ability to create and manage relationships with customers (Day, 1994). (3) Promptness, which is the capability of organizations to react quickly and effectively to changing markets driven by customer-designed products and services (Gunasekaran, 1999). Zhang and Sharifi (2000) argued that an organization's current level of promptness can be assessed through general factors such as the organization's responsiveness to changes in its business environment and effectiveness at capturing the market and customer needs (Zaheer & Zaheer, 1997; Olavarrieta & Ellinger, 1997).

We discuss each capability below.

Table 2-1. Previous definitions of the Responsiveness

Author	Year	Definition
Zeithaml et al.	1990	The willingness to help customers and provide prompt service.
Dickson	1992	The ability of an organization to learn about changes in its market environment.
Tunc & Gupta	1993	A firm's ability to respond in a timely manner to

		customer's needs and wants.
Upton	1995	The ability to fill customer's requirement quickly.
Barclay & Dann	1996	The ability to react purposefully and within an appropriate timescale, to significant events, opportunities or threats to bring about or maintain competitive advantage.
Gindy et al.	1999	The ability to make a rapid and balanced response to the predictable and unpredictable changes characterizing today's environment.
Dayr & Leticia	2000	Being responsive, come down with customer needs and concerns are basic to any service quality improvement effort.
Catalan & Kotzab	2003	The ability to respond and adapt time-effectively based on the ability to read and understand actual market signals.
Harrison & Godsell	2003	The ability to plan and control the flow of materials through a sequence of supply chain processes in order to meet end customer buying behavior.
Chen et al.	2004	The firm's ability to respond in a timely manner to the needs and wants of its customers.
Atuahene-Gima et al.	2005	The ability of a firm to quickly adapt to changing market demands.
Hooley et al.	2005	The ability to recognize customer's demand that create, maintain and improve the way organizations providing service and products.

2.1.1. Market-Sensing Capability

Market-sensing capability is critical to an organization’s ability to learn about customers, competitors, and channel members and continually sense and act on event and trends in present and prospective markets (Day, 1994). In current research, “market-sensing capability” refers to a firm’s ability to use market intelligence obtained through formal and informal mechanisms from various personal and public sources (Menon & Varadarajan, 1992; Moorman et al., 1992; Maltz & Kohli, 1996). Generally speaking, market-sensing capabilities are important in developing market focus and thus, ultimately, organizational performance (Day, 1994).

Market-sensing can be divided into three processes: sensing activities, sense-making activities and reflection (Day, 1994; 2002), as shown in Figure 2-1. Sensing activities include acquisition of information on consumers, competitors, and other channel members; sense-making activities involve interpretation of gathered information based on past experiences and knowledge; reflection means the utilization of the gathered and interpreted information in decision-making. Through the above three processes, intangible information and knowledge are transformed into visible marketing responses.

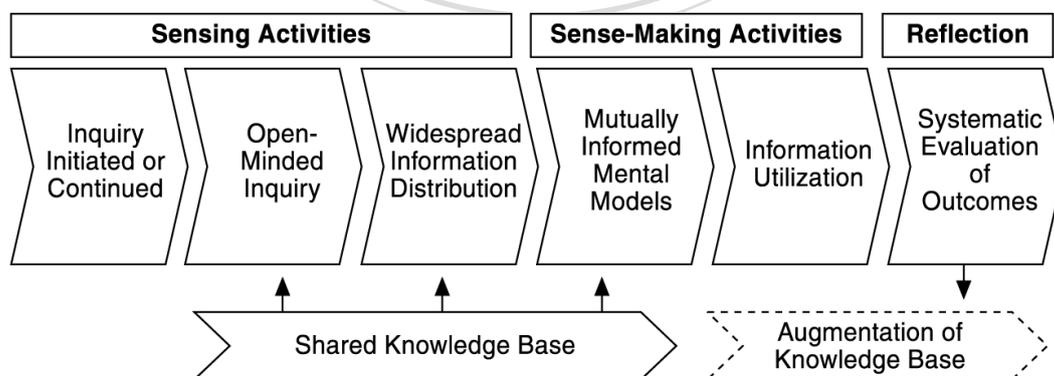


Figure 2-1. Market-driven processes for learning about markets (Day, 2002)

Because market-sensing capability is inseparable from organization performance (Day, 2002), it can be assumed that organizations that are proficient in market-sensing activities gain a competitive advantage and achieve superior organization performance (Day, 2002). That is to say, an organization's ability to learn about its market environment and use this information appropriately in its decision-making is the key driver of its performance (Dickson, 1992; Vorhies & Morgan, 2005).

2.1.2. Customer-linking Capability

Customers are becoming more sophisticated in their requirements and are increasingly demanding a higher standard of service. To customers, service means customer satisfaction, customer delight, service delivery, and customer relationships, among other definitions. Day (1994) refers to the ability to develop and manage close customer relationships as customer-linking capability and argues that this capability is among the most valuable of any organization. Because customer-linking capabilities take time to develop, rely on the integration of resources, and are inherently difficult for competitors to duplicate, customer-linking capabilities are distinctive in their potential to create a competitive advantage for firms that develop these capabilities.

In a resource-based view, customer relationships are an intangible, market-based resource that may be relatively rare and difficult for rivals to replicate (Srivastava et al., 1998). Hooley et al. (2005) also point out that this kind of relationship with customers is based on tacit knowledge and interpersonal skills, which are difficult to duplicate.

Despite the theoretical importance of customer-linking capability, few empirical studies have examined its antecedents or outcomes. As noted by Day (2000), establishing good relationships helps organizations to learn more about their

customers. Organizations can easily collect and integrate customers' thoughts, feedback and experiences for better service performance. Customer-linking capability thus refers to an organization's ability to recognize customer demand and to create, maintain and improve the way it provides services and products to achieve a higher level of customer satisfaction and loyalty as well as increased sales and profits (Dick & Basu, 1994; Hooley et al., 2005). An organization's customer-linking capability creates a potential competitive advantage in business (Rapp et al., 2010). Well-managed customer relationship creates a great opportunity to increase customer value and provides a way to systematically attract, acquire and retain customers (Lin & Su, 2003).

2.1.3. Promptness

According to surveys conducted in the service domain, many business people believe that mistakes drive customers away, but that is a misconception. Customers tolerate mistakes, but the failure to respond promptly to resolve conflicts has the potential to destroy relationships. Because a responsive organization is better prepared to thrive in a competitive and turbulent environment, promptness has become a necessary component in an organization's competitive strategy (Richards, 1996; Yusuf et al., 1999; Meredith & Francis, 2000; Highsmith, 2004).

Given the importance of promptness known as the agility, many definitions have emerged since Nagel and Dove (1991) first associate agility with organizational abilities. Kumar and Motwani (1995) define it as the ability to accelerate activities on a critical path that commences with the identification of a market need and terminates with the delivery of customized products and services. Vokur and Flidner (1998) consider promptness to be the ability to produce and market successfully a broad range of low-cost, high-quality services with short lead times in varying lot sizes,

thereby providing enhanced value to individual customers through customization. Sharifi and Zhang (1999) define it as the ability to cope with unexpected challenges, to survive unprecedented threats in the business environment, and to take advantage of changes as opportunities. McGaughey (1999) and Gunasekaran (1999) both describe it as the ability to provide service to customers quickly and effectively. For Sanchez and Nagi (2001), promptness is an overall strategy focused on thriving in an unpredictable environment by making prompt responses to the complexity brought about by constant change. Sambamurthy et al. (2003) define it as the ability to detect and seize market opportunities with speed and surprise.

Among all of the definitions, the one Kidd (2000) provides is the most comprehensive: A prompt organization is a fast-moving, adaptable and robust business. It is capable of rapid adaptation in response to unexpected changes and events, market opportunities, and customer requirements. Such a business is founded on processes and structures that facilitate speed, adaptation and robustness and that deliver a coordinated enterprise capable of achieving competitive performance in a highly dynamic and unpredictable business environment to which the enterprise's current practices are poorly suited.

SMEs must work especially hard to maintain the loyalty of their customers because they face an endless stream of competition from larger companies that have the money and manpower to be “on call” for their clients constantly. Based on the definitions above, we can conclude that fast responses and efficient communication in market, partners and customers are vital for SMEs if they are to achieve business success.

2.2. IT-enabled collaboration among SMEs

SMEs' performance is usually limited by their scarce resources, such as their limited financial budget, few qualified employees, managerial and technological competency barriers, and a lack of long-term strategies (OECD, 2010). Many researchers have shown that collaboration is an effective way for SMEs to achieve better performance and long-term survival (Dollinger & Golden, 1992; Gomes-Casseres, 1997; Sivadas & Dwyer, 2000; Bastos, 2001; Hitt et al., 2004; Merrifield, 2007; OECD, 2010). Collaborations can be conducted either horizontally with SME partners or vertically with customers.

The flourishing of IT in the last decade has facilitated collaboration (Pavlou, 2002; José-Juan et al., 2006; Skipper et al., 2008). Barua et al. (2004) and Martinez-Fernandez (2001) state that information technology has provided the means to share information more efficiently and effectively, thus improving coordination and collaboration activities. We will discuss two types of IT-enabled collaboration below: (1) collaboration with SME partners; and (2) collaboration with customers.

2.2.1. Collaboration with SME Partners

SMEs have faced challenges to their survival with their limited resources and little support from governments. These unfavorable circumstances deteriorate further in uncertain economic periods like the current crisis because SMEs do not have access to capital markets and their sources of external financing are much more limited than those of large organizations (Udell, 2009). However, studies have shown that collaboration between SME partners is an essential way for such companies to survive today (Berry, 1997; Hoffmann & Schlosser, 2001; Varamaki & Vesalainen, 2003; Narula, 2004).

Collaboration between partners is the process by which two or more business partners work together to pursue a common purpose or goal using shared resources and co-commitment (Michael & Lois, 2010). The introduction of information technology communication tools offers a new way for organizations to form and maintain cooperative relationships with one another (Martinez-Fernandez, 2001). This IT-enabled collaboration creates new kinds of interfaces between organizations that can take a multitude of forms.

An examination of the literature shows four types of benefits of collaboration among SMEs: (1) Strategy-oriented, where organizations collaborate through information technology to achieve strategic objectives, such as gathering information, maximizing profit, and gaining market advantages; (2) Transaction-cost-oriented, where transaction costs can be reduced by including a larger population of stakeholders in transactions for minimal marginal expense (Berry, 1997; Dhanaraj & Parkhe, 2006; Biswas et al., 2007; Meixner & Haas, 2008); (3) Resource-oriented, where organizations in need of additional resources that cannot be purchased via market transactions or built internally with acceptable cost (risk) or within an acceptable amount of time (Eisenhardt & Schoonhoven, 1996) are able to engage in value creation by combining internal and external resources in innovative ways (Ma, 2009); and (4) Knowledge-oriented, where, through seamless knowledge management, information exchange creates a convenient communication channel that establishes a sense of exclusivity among those organizations with collaborative access (José-Juan et al., 2006; Pavlou, 2002; Ma, 2009), and knowledge storage is achieved while collaborating (Meixner & Haas, 2008).

2.2.2. Collaboration with Customers

Both large and small organizations must focus on their customers to survive. Customers tend to be slow to adopt new services if organizations do not provide effective cognitive tools to help customers learn about the benefits associated with these new services. Acquiring a new customer can cost up to five times more than persuading an existing customer to make a new purchase (Adrian, 2002). The insertion of the customer into the chain of value by acquiring direct knowledge of his/her opinions and complaints is a factor in the success of businesses engaged in IT-enabled collaboration (José-Juan et al., 2006). Therefore, it is important to help resource-limited SMEs to create innovative offerings with low-cost and easily obtained benefits to improve their sustainability and to increase their chances of success.

Today, organizations increasingly involve their customers in service and product processes (Kausch, 2007). One crucial reason for collaborating with customers is their low satisfaction with an organization's existing services and products (Atuahene-Gima, 1995; Goldenberg et al., 2001). The main problem is that customers have requirements and expectations that are unknown to the service provider with the means to satisfy them (Thomke & Von Hippel, 2002). Encouraging customer collaboration from the beginning can provide better insight into customers' requirements and expectations and can yield a product or service that is better suited to the market (Kausch, 2007). Another reason to collaborate with customers, offered by Chesbrough (2004), is the reduced amount of time available to develop new services and products due to the growing speed of information technology.

Collaboration with customers can be facilitated by information technology. Alam (2002) describes four stages in which organizations maintain relationships with

their customers, as shown in Table 2-2: (1) passive acquisition of customers; (2) information and feedback on specific issues; (3) extensive consultation with customers; and (4) customer representation. Whereas the first two stages represent passive involvement of customers in the service development processes (with limited input and feedback), customers are increasingly being asked to contribute ideas and suggestions themselves, as in the latter two stages (Sawhney et al., 2005). Kristensson et al. (2004) find that ordinary customers are better able to develop original and valuable ideas than are professional customers. Matthing et al. (2004) find a similar result in their study: contributions from customers were rated more helpful than those from professional service developers. Clayton and Criscuolo (2002) find that IT facilitates collaboration to improve these four stages by turning ideas into marketable decisions for a wide range of customers, with reduced search costs and costs of access to markets; changed processes and shared information and resources between organizations and customers; and a shift in the balance of power between organizations and customers due to the increased availability of information. Thus, IT now views customers as service producers and assists organizations in providing better service.

Table 2-2. Four levels of customer involvement (Alam, 2002)

Stage	Explanations
Passive acquisition of input.	Users take the initiative to provide input into the development process. For example, a customer approaches the service producer with a new service idea.
Information and feedback on specific issues.	The service developers may approach major service users to obtain information and feedback on specific issues at various stages of the development process.

<p>Extensive consultation with users.</p>	<p>The service producers take the initiative and invite user input by means of a planned process governed by predetermined objectives. Common examples include detailed interviews with the users, focus group research, and group discussions.</p>
<p>Representation</p>	<p>Users are invited to join a new service development team, where they contribute to the specific stages of the development process in their capacity as a team member.</p>



3. RESEARCH MODEL AND HYPOTHESES

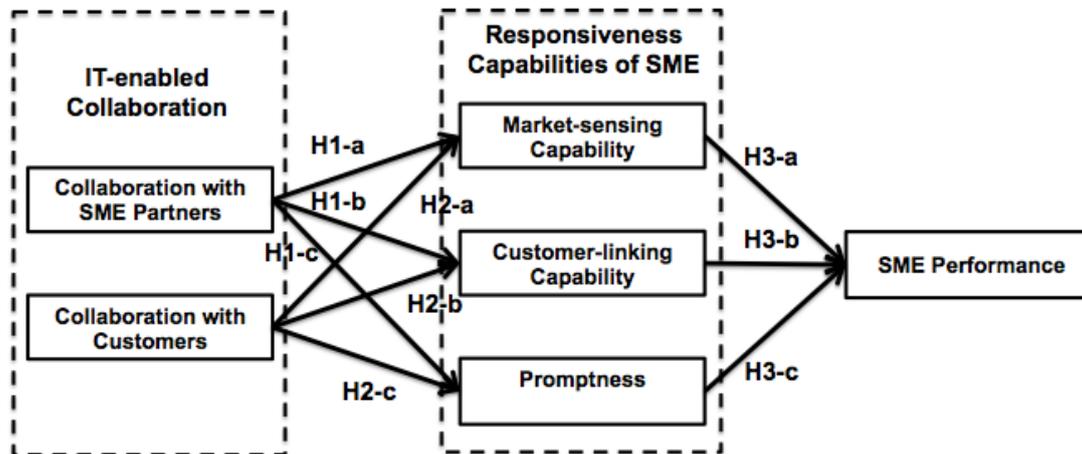


Figure 3-1. Research framework

Our research framework is shown in Figure 3-1. We argue that SMEs can enhance their responsiveness through IT-enabled collaboration and that these enhanced responsiveness capabilities will in turn improve SME performance.

SME performance can be measured in many different ways. According to Dixon et al. (1990), until the 1980s, performance measurements in the literature largely concentrated on financial indicators, including profitability (e.g., return on investment [ROI], earnings before interest and tax [EBIT], and gross profit margins), market share growth, sales growth, and efficiency (e.g., return on sales [ROS] and return on equity [ROE]). In the 1990s, non-financial performance was widely discussed. For example, Huselid (1995) and Youndt et al. (1996) suggest that performance could be measured by product quality and delivery time, employee morale and productivity, and inventory management and equipment utilization. Wahlberg et al. (2009) suggest that an organization's performance could also be

measured by CRM processes. Reinartz et al. (2004) investigate organizational performance by implementing CRM processes through relationship initiation, maintenance, and termination.

To summarize the literature, measurements of organization performance fall into three categories: financial, operational and relational. We will measure SME performance accordingly, and the details of our research framework are described below.

3.1. The Effects of IT-enabled Collaboration

3.1.1. Effects of Collaboration with SME Partners

Marketing theorists stress the importance of continually learning about the market environment. This learning process involves a series of information processing activities (Day, 1994). Through IT-enabled collaboration with business partners, information on consumers, competitors and other channel members can be acquired and interpreted in light of past experiences and knowledge on the same platform, then used to assist in decision-making. Through the above processes, intangible information and knowledge are transformed into a visible marketing response (José-Juan et al., 2006; Ma, 2009). Appropriate use of information is fundamental to the ability to sense market requirements (Rogers et al., 1991). If an organization does not have adequate and accessible resources and information, it stands at a distinct competitive disadvantage (Herbig & Shao, 1993). Haeckel and Nolan (1993) further stress that information technology is critical to managing conditions that are too turbulent to make sense of. IT-enabled collaboration thus allows resource-limited SMEs to acquire and share information efficiently and effectively, which strengthens their ability to read the market. Therefore, we hypothesize the following:

Hypothesis 1-a: *IT-enabled collaboration with SME partners has a positive impact on market-sensing capability.*

Although customer relationships are viewed as an intangible resource that may be relatively rare and difficult for others to replicate (Srivastava et al., 1998; Hooley et al., 2005), the capability of SMEs to acquire and manage customer information is limited due to their smaller scale. By coordinating information and activities with strategic partners, a SME can develop more ways to attract customers, and become more responsive to customer requests and build greater customer loyalty and better customer relations (Stock, 1990; Rapp et al., 2010). Therefore, we predict that customer-linking capability can be improved by collaboration through information technology:

Hypothesis 1-b: *IT-enabled collaboration with SME partners has a positive impact on customer-linking capability.*

SMEs usually lack promptness because of their lack of resources. To enhance promptness, it is important to increase communication and collaboration and improve decision-making processes (Lee et al., 2006). SMEs can acquire necessary resources and capabilities by forming alliances (Fernández & Nieto, 2005). Smith et al. (2007) argue that organizations involved in alliances are better able to utilize resources, improving their speed to the market and their speed in serving customers. Information technology makes such coordination more feasible (Kumar & Dissel, 1996). Paulraj and Chen (2007) state that IT-enabled collaboration increases information processing speed by providing an intermediary platform for partners to share knowledge, provide

timely information, and transcend each firm's boundaries. We hypothesize the following:

***Hypothesis 1-c:** IT-enabled collaboration with SME partners has a positive impact on promptness.*

3.1.2. Effects of Collaboration with Customers

Unlike large organizations, SMEs do not have the resources to engage in formal market research (Keh et al., 2007). For SMEs to sense the market precisely and adapt to it, they must collaborate with their customers to collect a significant amount of data and analyze it. This analysis will provide them with better insight into customer requirements and expectations, ultimately resulting in a service that is more suited to the market (Kausch, 2007). With the help of information technology, SMEs are able to gather, store, access, and analyze customer data to effectively make strategic business decisions (Swafford et al., 2006). Therefore, we hypothesize that IT-enabled collaboration with SME customers provides an environment for organizations to collect and analyze market data from customers and thus enhances the capability of organizations to sense the market.

***Hypothesis 2-a:** IT-enabled collaboration with SME customers has a positive impact on market-sensing capability.*

One crucial reason for conducting customer-linking activities is low customer satisfaction with services and products provided by organizations (Atuahene-Gima, 1995; Goldenberg et al., 2001). It is especially important for SMEs to listen to

customers' opinions and complaints directly to raise their level of service and product satisfaction. However, linking to customers is a time-consuming and resource-demanding process for SMEs. It is therefore essential for SMEs to enhance their customer-linking capability by collaborating with customers through a friendly, accessible, and directly interactive channel so that customers feel comfortable giving feedback (Kausch, 2007). Fuller et al. (2009) observe that, with the help of IT, organizations are able to form new channels to collaborate with customers, effectively sharing knowledge and managing relationships. As a result, IT-enabled collaboration with customers may reduce the distance between resource-limited SMEs and customers. Thus, we develop the following hypothesis:

***Hypothesis 2-b:** IT-enabled collaboration with SME customers has a positive impact on customer-linking capability.*

Whereas large organizations can simply employ a number of people to take care of their customers immediately, resource-limited SMEs may struggle to respond quickly to the demands of their customers. For SMEs, a fast and efficient communication tool to learn about customers is vital if they are to achieve business success. Through collaboration with customers, SMEs are able to learn about their customers in multiple ways, shortening development time. Moreover, IT enables organizations to reduce the time required to share information and reduce response time to unforeseen events, thereby enhancing promptness (Katayama & Bennett, 1999; Mondragon et al., 2004). Therefore, we hypothesize that SMEs gain promptness through IT-enabled collaboration with customers.

Hypothesis 2-c: IT-enabled collaboration with SME customers has a positive impact on promptness.

3.2. The Impact of Responsiveness Capabilities on Performance

Lack of financial assets is a problem that has long troubled SMEs, preventing their sustainable development and competitiveness in the long run. Therefore, it is especially important for SMEs to attract new customers at low cost. The literature suggests that market-sensing capability is related to aspects of firm performance such as profit and customer satisfaction. According to Slater and Narver (2000), better market-sensing capability allows an organization to discover underserved market segments and those where its rivals' offerings may not be fulfilling customers' needs. These underserved and unsatisfied segments are good targets for organizations seeking new customers. Hult (1998) and Morgan et al. (2009) suggest that market-sensing capability provides market insights that enable organizations to reduce their costs through effective use of resources by better matching the organization's resource acquisitions and deployments with customer and prospect opportunities. By doing so, we assume that SMEs are better able to forecast the value of different resources accurately, which enables them to manage resources better to achieve higher performance (Makadok, 2001). As a result, we expect the following:

Hypothesis 3-a: Market-sensing capability has a positive impact on SME performance.

SMEs may spend their limited resources and time on other tasks at the cost of customer satisfaction. This trade-off is a significant way in which SMEs lose business to their larger competitors. Managing relationships with customers is therefore critical.

In our study, customer-linking capability has been defined as an organization's ability to manage its relationship with its customers by contacting them directly. Direct customer contacts shorten service cycles and lower service costs. Nielsen (2002) and Hooley et al. (2005) suggest that customer-linking capability enables the development and maintenance of strong customer relations and ultimately improves customer satisfaction and loyalty. As a result, we expect the following:

***Hypothesis 3-b:** Customer-linking capability has a positive impact on SME performance.*

Due to their smaller scale and limited funds, SMEs need to determine the most efficient and effective market strategies for improving their performance. A firm's promptness represents the strength of the interface between the organization and the market (Mason-Jones & Towill, 1999). Organizations that are prompt in response to customer requirements demonstrate operational flexibility, which can eliminate waste in their operations, better direct their interactions with their customers to improve customer retention, and in general, reduce the costs incurred in servicing their customer base. We believe that promptness can yield better SME performance in two ways: gaining profit by quickly adapting to market changes and reducing cost by eliminating waste from operations. Thus, we posit:

***Hypothesis 3-c:** Promptness has a positive impact on SME performance.*

4. RESEARCH METHODS

To test our research framework, we developed a case study of eight different case SMEs in the Mt. Pillow Leisure Agriculture Area in Yilan County. In this section, we will provide the background descriptions of our cases.

4.1. Case Background & Research Methodology

Tourism is an important industry for the Taiwanese economy and is dominated by SMEs, which represent 90% of all tourism businesses. Economic growth and social change have made leisure activities an important means of satisfying people's recreational needs. The recent rapid development of leisure agriculture in Taiwan illustrates the growing demand for recreation resources.

Leisure agriculture is a new trend in agricultural operations that combines local industry, cultural characteristics, leisure, natural ecology, and accommodations. With its unique geography and diverse cultural and natural resources, Taiwan possesses significant potential to develop leisure agriculture. However, SMEs involved in leisure agriculture are seldom able to collaborate to enhance their competitiveness. Operating independently, they continue to suffer from low productivity, lack of innovation, and slow growth due to their lack of the necessary resources to manage and fulfill customer needs efficiently.

Based on our discussion above, we believe that IT-enabled collaboration will enable SMEs to enhance their responsiveness capabilities to achieve a higher level of service performance.

For our study, we selected the SMEs in Mt. Pillow Leisure Agriculture Area, Yilan County. These SMEs in this area include, among others, farms, orchards, gardens, restaurants, natural landscapes, natural ecological areas, and accommodations. The case firms are as follows: A1 is a B&B with the part-time host.

A2 is a medium-sized sightseeing orchard. A3 is a small-sized Chinese snack wholesale who intending to transform into DIY provider which allows customers to make their own snack. A4 is a well-run B&B with some Taiwanese trendy dramas promotion. A5 and A6 are B&Bs who share their spare rooms to more or less support their family. A7 is a leisure farm of white michella and the new host only recently began renting the farm from the original proprietor and aims to add new services and products. Finally, A8 is a leisure farm growing bamboo shoots, but its main source of revenue is the well-known organic restaurant.

Because the SMEs in the Mt. Pillow Leisure Agriculture Area did not yet have a unified IT-enabled collaborative platform, we extended the target platform to anything that can provide a channel for SMEs to obtain and share information, directly communicate and interact, and engage in collaborative projects with customers and other SME partners. Therefore, the IT-enabled collaborative platforms we took into consideration included, among others, blogs, guestbooks, and Facebook. A background description of each SME covered in our study is shown in Table 4-1.

Table 4-1. Case background description

SME	Type	Description	IT-enabled Collaborations
A1	B&B	A SME that provides customers with accommodations and homemade products.	Blog Facebook Guestbook
A2	Orchard	A SME that provides customers with orchard for fruit picking and DIY experiencing.	Blog Facebook Guestbook
A3	Restaurant	A SME that makes a variety of Chinese snacks and intend to transform into DIY experiencing which will be available few months after.	Blog
A4	B&B	A SME is known for Taiwanese trendy drama filming location that provides accommodations with	Facebook Guestbook

		high-class facilities and natural landscapes of Mt. Pillow.	
A5	B&B	A SME that provides customers with home-feel accommodations, natural landscapes of Mt. Pillow beside, orchard in the backyard, and DIY experiencing.	Blog Facebook Guestbook
A6	B&B	A SME that provides customers with accommodations and an overlook of the natural landscapes at top of the Mt. Pillow in the backyard.	Facebook
A7	Farm	A SME that provides customers with magnolia garden for visiting, DIY experiencing, and related products.	Blog Facebook
A8	Farm	A SME that provides all kind of bamboo shoots DIY experiencing, meals, and related activities.	Blog

To better examine the responsiveness and performance of these SMEs, we used the case study methodology to determine how IT-enabled collaboration impacts SMEs' responsiveness and performance, and analyzed these in our assessment framework. Our research roadmap is shown in Figure 4-1.

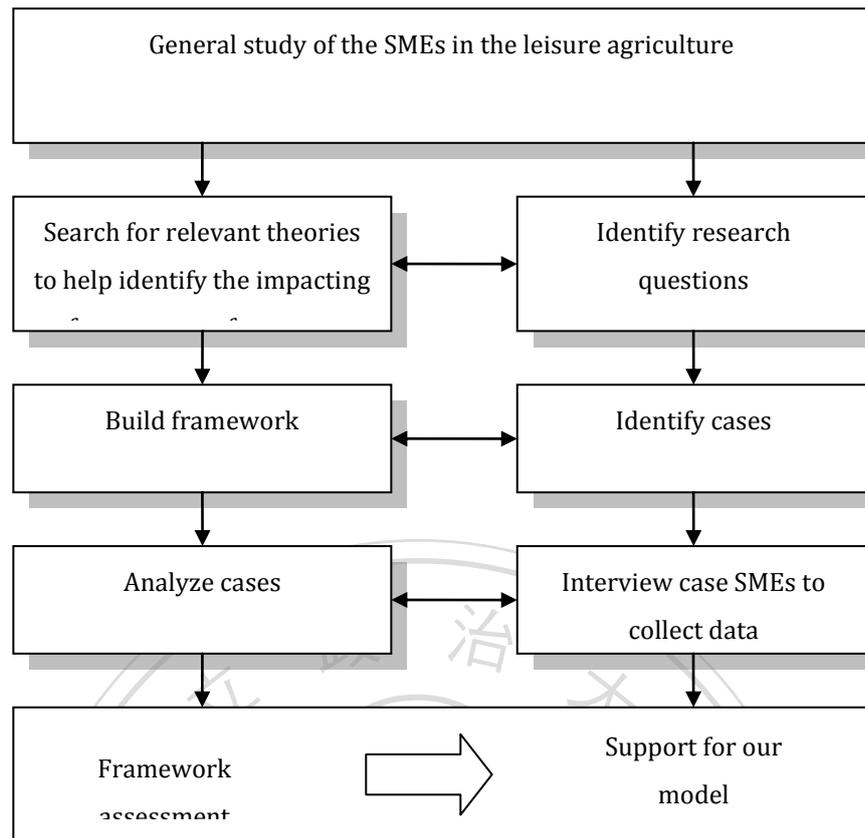


Figure 4-1. The research road map

4.2. Data Collection

The primary data sources were interviews conducted from April 2012 to May 2012 with key respondents who were able to offer useful insights into their experience using IT-enabled collaborative platforms. For each SME, we conducted two interviews, each lasting approximately 1 to 2 hours. All interviews were tape recorded, and all sessions were transcribed before the data were analyzed. To enhance the validity of answers, summaries of the major finding in each interview were verified by the participants after the end of each interview session. Moreover, to ensure the construct validity, internal validity, external validity and reliability of the case study, as suggested by Yin (2003), the recommended case study tactics were used. The results of this assessment are presented in Table 4-2.

Table 4-2. Validities and reliability tests

Tests	Case Study Tactic and the phase in which tactic occurs (Yin, 2003)	Implementation in this study
Construct validity	Use multiple sources of evidence in data collection phase	The primary data sources were collected via interviews with eight SMEs. Other information from the meeting minutes and prospectus were considered simultaneously.
Internal validity	Do explanation-building in data analysis phase	A series of iterative work were conducted to examine the framework application. Consequently, led to a cross-case analysis in our multiple-case study.
External validity	Use replication logic in multiple-case studies in research design phase	A theoretical framework was developed to process the case studies (Figure 3-1). With such replications could the theoretical framework later become a basis for generalizing to new cases.
Reliability	Use case study protocol in data collection phase	A semi-structured interview guide was used for all interviews. The interview guide included several open format questions to allow the participants flexibility in their responses. (see Appendix A)

5. RESEARCH ANALYSIS

5.1. Case Analysis

IT-enabled Collaborations

1. IT-enabled collaboration with SMEs

IT-enabled collaboration with SME partners is described as the degree of SMEs interaction through IT platforms. We assessed IT-enabled collaboration with SME partners based on three levels: do not/mostly do not interact with other SMEs through IT platforms; engage in basic interactions with SMEs through IT platforms; and engage in discussion or coordination with business partners through IT platforms. We gave these levels the corresponding ratings of "Low", "Medium", and "High". Our interviews and analysis revealed that A2, A3, A6 and A8 do not interact with other SMEs through IT and usually conduct their communications in person or over the phone. We thus rated these 4 cases as having low IT-enabled collaboration with partners. A1, A4, A5 and A7 engage in basic interactions, such as leaving messages and sharing pictures with other SMEs through Facebook as well as maintaining friendships. We thus gave these 4 cases a medium rating. However, our interviews revealed that no case firm cooperates with partners with the help of IT.

Below are excerpts from our interviews:

We (SMEs) interchange information sometimes, such as on difficult customers. But only using face-to-face communications, we seldom go through Internet. (A6)

I sometimes interact with other SMEs in Facebook. Give them a "like" or leave some messages;K just like with non-business friendships. (A5)

2. IT-enabled collaboration with customers

As mentioned above, we define IT-enabled collaboration platforms as common integrated service system, such as social networking websites, blogs, and message boards, that can make firms communicate with both existing and potential customers. Through these platforms, managers are able to work alongside customers to generate new ideas. Therefore, to measure value co-creation through IT platforms, the frequency of the firm's communication with customers through IT-enabled collaboration was used.

According to the interviews, in the past, A1 often replied to customers on its maintained guestbook and contacted them by e-mail. However, for personal reasons, she has changed her opinion and behavior with regard to IT-enabled collaboration. We gave this special case a Medium rating. Unlike the precedent case, A2, A5, and A7 show similar characteristics and communicate with their customers at a medium frequency. They sometimes interact with their customers, and believe that the IT-enabled collaboration platforms are truly effective. Because of their medium frequency in interactions with customers through IT platforms, we give these three cases a medium rating for this category. A3, A6, and A8 are similar in their little use of information technology to support their business operation, let alone to engage in collaboration opportunities on IT-enabled platforms. Only A4 was given a high rating due to daily interactions with people on various Internet platforms. A4 regards these different platforms as valuable not only for promoting his business but also for knowing more about customers. This case is an ideal example of customer-friendly cooperation through information technology.

Below are excerpts from our interviews:

In the past, I have often interacted with customers. For example, I took some photos for my customers, uploaded them to my blog, and then e-mailed them out, the B&B holder said. She often replied to customers on the firm's message board, and sent some greeting cards for Chinese New Year or other holidays. (A1)

For example, it really works. If someone tells us that here have too many mosquitoes, I need to handle the situation; or if someone says that the area is messy, I will sweep immediately. (A7)

Responsiveness

1. Market-sensing capability

In our research, we assessed the degree of SMEs' market-sensing capability based on how SMEs participate in the three stages of market-sensing activities, which we have mentioned in the previous chapter: collecting information on customers, partners, and competitors; interpreting and understanding the collected information; and making informed decisions in the market. We measured the degree of market-sensing capability with the ratings "Low", "Medium", and "High". From the interviews, we found the following: A1 collects information only for basic understandings and does not want to follow market trends. A2 collects information to understand customer preferences and business operating conditions, but does so only as a reference tool. A4 has full knowledge of information not only on other SMEs and customers but also on its own advantages and positioning, all of which helps to make informed market decisions. A5 and A7 are similar in this regard, having collected some information and having fostered a certain degree of understanding and willingness to cooperate and change. Meanwhile, A3, A6 and A8 have not collected any information through IT-enabled platforms from partners or customers. We thus

gave A3, A6 and A8 a low rating, A1 and A2 a medium rating, and A4, A5 and A7 a high rating for market-sensing capability.

Below are excerpts from our interviews:

I understand the market trend, but it's uneconomical to spend a lot of money if I decide to change our room. (A1)

I have information on customers and SMEs, but I prefer gaining experience in person. Information from the Internet is only for reference. (A2)

When products and services are different than others, all of the resources will come to me, so, it's important to maintain our strengths. I know where are my customers and understand them as well, it is important. (A4)

If we go the wrong direction (market trend), that will be terrible, so it is important to understand what others SMEs are doing and change the way we operate our business. (A7)

2. Customer-linking capability

In our research, we assessed the degree of SMEs' customer-linking capability based on how SMEs attract, acquire and retain customers. To measure this degree, we gave the ratings "Low", "Medium", and "High". From the interviews, we found that A1 used to attract their customers to make purchase by using interesting photos and words, and contacting them with e-mails and interacting with them on Facebook to maintain the relationship. However, due to personal factors, A1 has changed its mind and behavior on customer relationship management. A2, A3, A6 and A8 seldom use computers to interact with their customer. A4 uses multiple avenues to increase its exposure, using the most natural way to attract customers and frequently contacting

and interacting with its customers on Facebook to maintain relationship. A5 did not expend much effort to attract the attention of consumers but was very successful in interacting with customers after serving them. A7 has several ideas for how to attract customers and has set up a fan page to interact with future customers and maintain good relationships, but the current owner took control of the business only a few months ago and has not yet begun operations. Our results show that A2, A3, A6 and A8 have a low level of customer-linking capability, A1, A5 and A7 have a medium level, and A4 has a high level.

Below are excerpts from our interviews:

I wrote blogs about travel, food, and B&B to attract customers, and I used to build customer files and contact the customers often. (A1)

I will use different advertising to help our B&B, so that customers can naturally recognize the surrounding environment here, rather than strong placement marketing. In fact, I just often post something on Facebook of my. Many people said that I could be the spokesperson of Wong Lung Pi. (A4)

Some customers said that the photo shoots on our website are not very good, but that was a surprise. I think natural photo shoots are not very good, but customer's actual feeling is more important. (A5)

I would like to interact with my customers. The ecology here is very rich, like tree frogs and fireflies, I take photos to it and post it on the blog. (A7)

3. Promptness

In our research, we assessed the degree of SMEs' promptness based on whether there is an immediate response to the market, partners and customers. We

measured promptness with ratings of "Low", "Low-to-Medium", "Medium", and "High". We learned from interviews that A1 can quickly respond to partners and customers and also interact with them as well but has not responded to market changes. A2 responds regularly only to customers' demands and questions. A3, A6 and A8 cannot respond immediately to partners, customers, or the market. A4 responds immediately to customer feedbacks, constantly adjusts to the latest information on partners, and quickly adapt to popular market trend. Finally, A5 and A7 can respond quickly to customers and local activities. We determined that A4 has the highest level of promptness, followed by A1, A5 and A7 which were given a medium rating, A2, which was given a low-to-medium level, and A3, A6 and A8 which were given a low rating.

Below are excerpts from our interviews:

Facebook's sharing feature is very good, you can see instant message anytime. (A1)

I contact customers mostly by phone, but if I see message I will reply to it as soon as possible. When someone sends a message, I get an automatic alert. (A2)

When a customer mentions us, a notification is automatically sent to me. I will see it immediately. (A4)

I will regularly update the B&B information and check messages. (A5)

Performance

In our research, we assessed the case firms' performance based on whether they are improving in terms of income generation, customer relationships, and partner relationships. We rated performance as either "Low", "Low-to-Medium", "Medium",

or "High". We learned from the interviews that A1 earns income by selling the product and has a better relationship with customers by interacting with them. In addition, A2, A3, A6 and A8 have not experienced income growth or an improvement in their relationship with customers. A4 has successfully reduced the advertising cost, gained income, and improved relationships with both customers and partners. A5 has not substantially increased income but finds that interactions with partners and customers is helpful for maintaining a good relationship, and A7 has not yet begun to operate but has forged good relationships with partners. Therefore, we determined that A4 shows high performance, A1 and A5 show medium performance, A7 shows low-to-medium performance, and A2, A3, A6 and A8 show low performance.

Below are excerpts from our interviews:

I am selling our products on Facebook now. (A1)

I use the information technology to do the marketing for free. I also have 900 friends on Facebook both SMEs and customers, most of whom added me as friend actively. I think this kind of interaction is pretty good, not too commercial, and unobtrusively promote our B&B. (A4)

Through Facebook, I recognize some SMEs in other areas, and we have interaction sometimes on Facebook. Additionally, customers have asked me to recommend few restaurants for the New Year on Facebook, and then later thank me on Facebook, because the restaurant I recommended was really good and cheap. (A5)

For example, I have good relationship with some SMEs. The friends of theirs, though without connection currently, I still try to add them as friend on Facebook.

(A7)

The interviews, some preliminary analyses from the interview records on eight SME cases are summarized in Table 5-1.



Table 5-1. Cross-case analysis

Factor	Item	Definition/Evidence	A1	A2	A3	A4	A5	A6	A7	A8
Independent variable	IT-enabled collaboration with partners	The level of interaction with partners through IT	Medium	Low	Low	Medium	Medium	Low	Medium	Low
	IT-enabled collaboration with customers	The level of interaction with customers through IT	Medium	Medium	Low	High	Medium	Low	Medium	Low
Independent variable	Market-sensing capability	<ul style="list-style-type: none"> ◆Information collecting ◆Information interpreting ◆Decision-making 	Medium	Medium	Low	High	High	Low	High	Low
	Customer-linking capability	<ul style="list-style-type: none"> ◆Customer attract ◆Customer acquire ◆Customer retain 	Medium	Low	Low	High	Medium	Low	Medium	Low
	Promptness	<ul style="list-style-type: none"> ◆ Immediate response to partners ◆ Immediate response to customers ◆ Immediate response to market 	Medium	Low-Medium	Low	High	Medium	Low	Medium	Low
Dependent variable	Performance	<ul style="list-style-type: none"> ◆Income generating ◆Partner relationship building ◆Customer relationship building 	Medium	Low	Low	High	Medium	Low	Low to Medium	Low

5.2. Analysis Results

5.2.1. Impact of IT-enabled Collaboration with Partners on Responsiveness

Figure 5-1 shows the summary of the case analysis presented previously. As charts (a), (b), and (c) indicate, we can see the impact of the IT-enabled collaboration with SME partners on the responsiveness capabilities defined in our study of each SMEs.

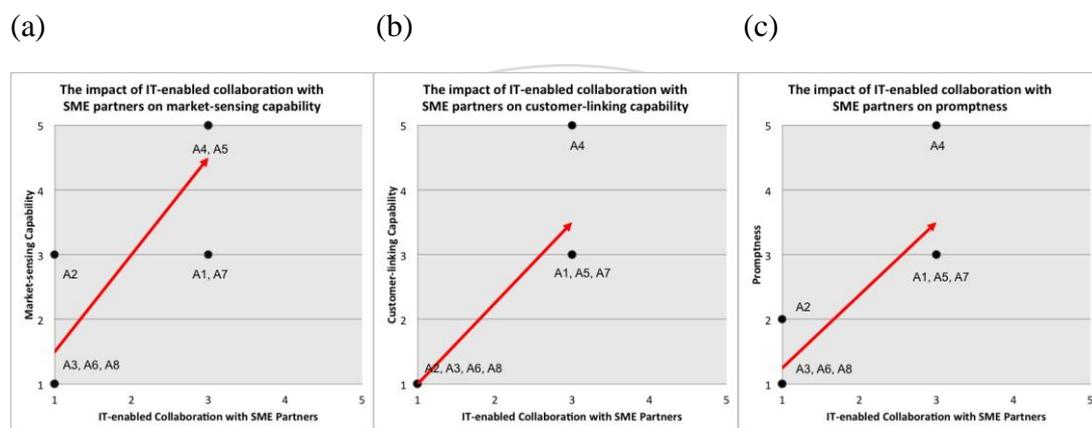


Figure 5-1. Summary of case analysis (I)

First, we examine our hypothesis 1-a, which states that IT-enabled collaboration with SME partners has a positive impact on market-sensing capability. As chart (a) of Figure 5-1 indicates, a trend line shows a positive relationship between IT-enabled collaboration with SME partners and market-sensing capability. We found that more interaction with partners firms make SME understand what others are doing or actions they might take. In sum, our case study supports hypothesis 1-a, which stated: when there is good IT-enabled collaboration between SMEs, SMEs can contribute to higher levels of market-sensing capability.

The second hypothesis we examine is hypothesis 1-b, which states that IT-enabled collaboration with SME partners has a positive impact on customer-linking capability. As chart (b) of Figure 5-1 indicates, the trend line shows a positive

relationship between IT-enabled collaboration with SME partners and customer-linking capability. By obtaining information from partners, SMEs can generate more ideas, become more responsive to customer requests, and build greater customer loyalty and better customer relations. In sum, our case study support hypothesis 1-b, which stated: when there is good IT-enabled collaboration between SMEs, SMEs can contribute to higher levels of customer-linking capability.

The third hypothesis we examine is hypothesis 1-c, which states that IT-enabled collaboration with SME partners has a positive impact on promptness. As chart (c) of Figure 5-1 indicates, the trend line shows a positive relationship between IT-enabled collaboration with SME partners and promptness. In sum, our case study supports hypothesis 1-c, which states that when there is good IT-enabled collaboration with other firm, SMEs can contribute to higher levels of promptness.

5.2.2. Impact of IT-enabled Collaboration with Customers on Responsiveness

Figure 5-2 presents a summary of the case analysis presented above. As charts (a), (b), and (c) indicate, we can observe the impact of the IT-enabled collaboration with customers on the responsiveness capabilities defined in our research of each SMEs.

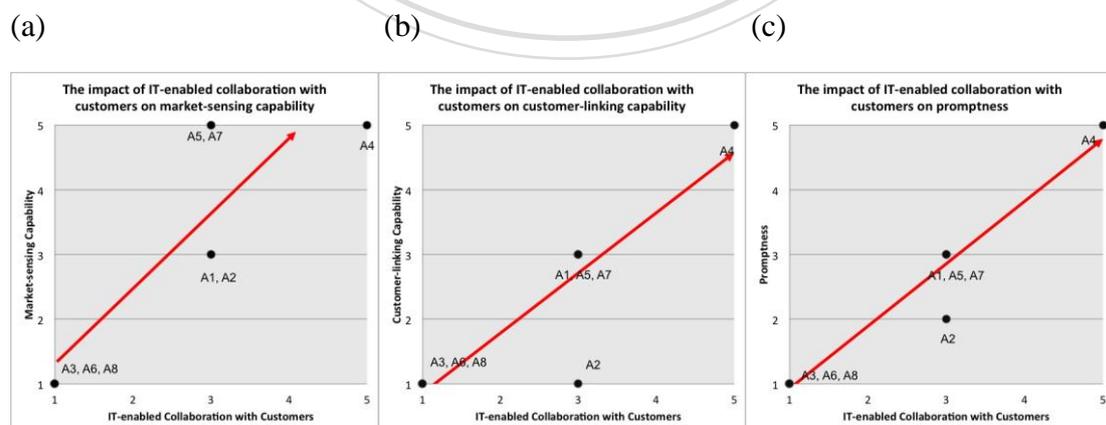


Figure 5-2. Summary of case analysis (II)

First, we examine our hypothesis 2-a, which states that IT-enabled collaboration with customers has a positive impact on market-sensing capability. As chart (a) of Figure 5-2 indicates, the trend line shows a positive relationship between IT-enabled collaboration with customers and market-sensing capability. We observe that through direct contact with customers, SMEs are able to accurately apprehend present and future market trends. In sum, our case study supports hypothesis 2-a, which states that when there is good IT-enabled collaboration between customers, SMEs can contribute to higher levels of market-sensing capability.

Second, we examine hypothesis 2-b, which states that IT-enabled collaboration with customers has a positive impact on customer-linking capability. As Figure 5-2 chart (b) indicates, A2 has a medium level of IT-enabled collaboration with customers but a low level of customer-linking capability. We observe that A2 regularly replies to customers' questions but has not used this advantage to engage in further interactions with customers using IT resources. Therefore, A2 is not able to enhance its customer-linking capability through IT-enabled collaboration with customers. Although the case of A2 does not show a positive relationship, the trend line shows that IT-enabled collaboration with customers have a positive impact on customer-linking capability. In sum, our case study continues to support hypothesis 2-b, which states that when there is good IT-enabled collaboration between customers, SMEs can contribute to higher levels of customer-linking capability.

The next hypothesis we examine is hypothesis 2-c, which states that "IT-enabled collaboration with customers has a positive impact on promptness. As the trend line in chart (c) of Figure 5-2 indicates, most SMEs demonstrate a positive relationship. The exception to this case is A2, which has a medium level of IT-enabled collaboration with customers but a low-to-medium level of promptness.

Although this is not classified as being on the same level, we can still classify this as a positive relationship. In sum, our case study still supports hypothesis 2-c, which states that when there is good IT-enabled collaboration between customers, SMEs can contribute to higher levels of promptness.

5.2.3. Impact of Responsiveness Performance

Figure 5-3 shows the summary of the case analysis presented previously. As charts (a), (b), and (c) indicate, we can see the impact of the responsiveness capabilities defined in our research on the performance of each SMEs.

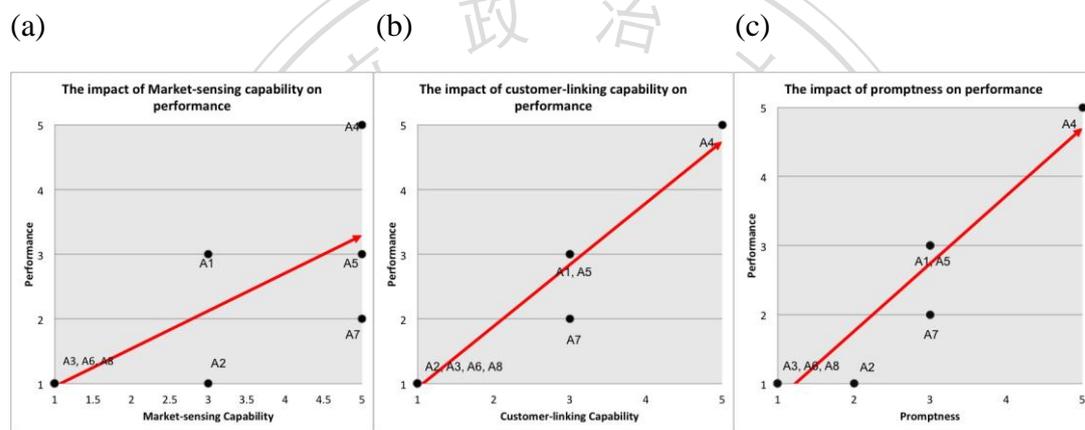


Figure 5-3. Summary of case analysis (III)

We examine hypotheses 3-a, 3b, and 3-c, which state that market-sensing capability, customer-linking capability, and promptness have a positive impact on SME performance. As charts (a), (b), and (c) of Figure 5-3 indicate, although the trend lines all show positive relationships between the responsiveness capabilities and performance, it appears that A2 and A7 did not show a positive relationship. A2 has a medium level of market-sensing capability and a low-to-medium level of promptness but also presents low performance. From the interview, we observe that the host of A2 is a traditional person and believes in face-to-face communication instead of IT-enabled collaboration. Therefore, even though A2 has a medium level of market-

sensing capability and a low-to-medium level of promptness, their impact on performance remains low. A7 has a high level of market-sensing capability and medium levels of customer-linking capability and promptness but has only low-to-medium performance. We have obtained this result because the current host of A7 began renting the farm from the original proprietor not long ago and thus is still in the preparation phase. Therefore, it is expected that the financial performance would be low and that customer relationships would not yet be built, with only relationships with SME partners having been established. Therefore, we cannot yet observe a significant impact on performance. In sum, our case study continues to support hypotheses 3-a, 3-b and 3-c, which state that when responsiveness capabilities are enhanced through IT-enabled collaborations, SMEs can achieve higher performance.

5.3. Findings

, A few interesting findings are listed below to further explore responsiveness capabilities defined in our study. We believe that these findings are able to help us to design a more complete research model in the future.

The Attitude of Running a Business

Do all the SMEs demand for the responsiveness capabilities defined in our study? We found that the attitude of how the hosts run their business will impact the demand for market-related responsiveness capabilities. We classify the SMEs in our case into two categories: low and high demand for market-related responsiveness capabilities. We observe that those whom are yearn for market-related responsiveness capabilities have a positive attitude toward running their business and are very concerned about the trend of the market. Those whom showed low market-related responsiveness capabilities have a passive attitude on their business and prefer to keep

the original state. It seems that the attitude of running a business might affect the way that SMEs sense and respond the market. Therefore, we can conclude that the attitude of running a business will directly impact the demand for market-related responsiveness capabilities.

The Capability of Using IT

All the SMEs in our case mentioned the importance of customer-linking capability, especially on attracting customer and maintaining customer relationship. Although the result shows that IT-enabled collaboration has a positive impact on customer-linking capability, we observe that the capability of using IT might play a role between IT-enabled collaboration and customer-linking capability. A2, for example, replies to customers' requirements and questions regularly, but has not used this advantage to engage in further interactions due to the capability of using IT. Therefore, the capability of using IT should be taken into account when we consider using IT-enabled collaboration to enhance SMEs' customer-linking capability.

6. CONCLUSION

6.1. Conclusion

The service economy has grown significantly in the last decade, and SMEs are an important part of this sector. To serve customers in a turbulent environment, SMEs must enhance their responsiveness to retain their long-term competitiveness.

Few published articles have addressed the issue of how to enhance SMEs' responsiveness through IT-enabled collaboration. Our study aims to contribute to the literature by defining responsiveness capabilities in the SME context and providing a framework for examining the relationships between IT-enabled collaboration, responsiveness capabilities, and organizational performance. In our research framework, we proposed two dimensions of IT-enabled collaboration: IT-enabled collaboration with partners, and IT-enabled collaboration with customers. Each dimension directly influences the responsiveness capabilities defined in our research: market-sensing capability, customer-linking capability, and promptness.

We studied SMEs in the Mt. Pillow Leisure Agricultural Area in Yilan County in particular to test the hypotheses proposed in our research. We conducted face-to-face interviews in April and May of 2012 to gather useful information and gain more insights. The measurement and logical analysis of each case revealed strong support for the hypotheses, with the exceptional cases being adequately explained. In conclusion, SMEs should engage in IT-enabled collaboration to enhance their responsiveness capabilities and business performance. We believe that the study results will also help SMEs to develop their responsiveness capabilities and offer SMEs a guide to retaining their competitive advantage in the service economy through IT-enabled collaboration.

6.2. Limitations and Implication of Future Research

In our study, we found that the characteristics and the personality of hosts, such as their attitude towards IT-enabled collaboration services may have mediating effects on the relationship between IT-enabled collaborations and responsiveness. Therefore, the possible exact intermediary factors may be studied to lessen the exceptions of our hypotheses in the future study. Moreover, further research could be conducted to verify these findings for SMEs in different industries and locations to help SMEs overall achieve higher performance.



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APPENDIX A. QUESTIONS LIST OF THE INTERVIEW

(CHINESE)

IT-enabled Collaboration:

IT-enabled Collaboration with SME partners

- 是否透過資訊科技化協同合作平台與商家進行互動？
- 是否透過資訊科技化協同合作平台與大量的商家合作？

IT-enabled Collaboration with Customers

- 是否透過資訊科技化協同合作平台與顧客進行互動？
- 是否透過資訊科技化協同合作平台與大量的顧客進行互動？

Responsiveness:

Market-sensing

- 是否透過資訊科技化協同合作平台更了解市場趨勢？
- 是否透過資訊科技化協同合作平台收集到各種不同的資料？
- 是否透過資訊科技化協同合作平台與其他商家交換資訊？

Customer-linking

- 是否透過資訊科技化協同合作平台吸引顧客目光？
- 是否透過資訊科技化協同合作平台與顧客直接進行溝通？
- 是否透過資訊科技化協同合作平台與顧客建立良好關係？
- 是否透過資訊科技化協同合作平台回應顧客的需求與問題？

Promptness

- 是否透過資訊科技化協同合作平台快速回應/取得商家資訊？
- 是否透過資訊科技化協同合作平台快速回應/取得顧客資訊？
- 是否透過資訊科技化協同合作平台快速回應市場趨勢與改變？

Performance:

- 是否透過資訊科技化協同合作平台增加收入？
- 是否透過資訊科技化協同合作平台促進與潛在商家關係開展？
- 是否透過資訊科技化協同合作平台促進與潛在顧客關係開展？
- 是否透過資訊科技化協同合作平台與其他商家維持長久互動的密切關係？
- 是否透過資訊科技化協同合作平台與顧客維持長久互動的密切關係？

APPENDIX B. INTERVIEW CONTENTS (CHINESE)

Factor		Item		Definition / Evidence			
Moderating Variables		IT-enabled Collaboration with SME Partners		商家透過 IT 與其他業者互動的程度 不用 IT 互動/基本交流/溝通合作事宜			
A1	A2	A3	A4	A5	A6	A7	A8
Medium	Low	Low	Medium	Medium	Low	Medium	Low
A1		<p>受：我(Facebook)現在裡面有一千多人，主要還是民宿業者、貨是我們在地的，也有一些外面的啦，但是會在互動的還是那幾個。</p> <p>受：商家之間的關係都是不錯的，會來按個讚阿留言阿。</p>					
A1		電腦能力還不錯，會用 FB 跟其他商家進行基本的交流。→Medium					
A2		<p>受：像以前老爺酒店是直接來我們休閒農業區跟總幹事接洽，我們總幹事提供行程給他們選。</p> <p>訪：所以都是透過當面的方式？</p> <p>受：對對，他們也很慎重阿，會帶整個部門的人來玩一次看看。</p> <p>受：從網站這樣看(其他商家的資訊)，是會有幫助，但那個還只是皮毛，應該最主要還是現場去看。</p> <p>受：也是會 Facebook 啦但是很少，大部分都是同業，還有其他休閒農業區的也有，認識的。</p>					
A2		合作的洽談是面對面的，少有網路互動的方式。→Low					
A3		受：為像我之前做網頁，也有台北那邊的幾家餐廳阿看到就跟我們訂貨。					
A3		有部落格做好放著很久沒更新，工作忙沒有時間用電腦。→Low					
A4		<p>受：Facebook 上商家會有什麼樣的互動呢...怎麼講，像我在 Facebook 上的應用是自然而然的，不是很商業行為的...那互動好像比較少啦。像如果有人在我 Facebook 留太商業行為的話我也都是直接砍，包括他跟他的朋友都隔絕掉。</p> <p>受：我也會看網路上的評論阿，像民宿的話也都會稍微 search，我在網路上的功課做的還蠻多的。</p>					
A4		不刻意去宣傳，自然而然形成互動，能善用網路了解其他商家。→Medium					
A5		<p>受：(商家間)都是用打電話，主要還是這邊的商家...</p> <p>受：Facebook 有，就是用個人帳號那後面有寫隱居山林，</p> <p>受：偶爾有(用 Facebook 跟商家互動)，就在 Facebook 上按個讚阿說你的照片很漂亮阿...就比較朋友間的。</p>					
A5		透過 FB 與商家維持朋友間的互動。→Medium					
A6		<p>受：Facebook 的話...就是跟我自己的朋友，沒有跟其它的商家，因為我用自己的名字不是用山頂所在啦。</p> <p>受：有時候交流也會知道，喔有什麼奧客阿~不過都是面對面的啦，透過網路的就比較少。</p> <p>受：大部分還是面對面。</p>					

A6 商家的互動幾乎都是面對面的，不會用網路跟其他商家互動。→Low	
A7	<p>受：我們這邊有枕頭山休閒農業區的官網，但是後來就是價格的問題，那一年的維護費阿還蠻高的，因為他也達不到什麼效益，所以後來很多就退出。</p> <p>受：Facebook 有，YAM 天空也有，就是枕頭山這邊...也會跟其他商家互動。</p> <p>受：我們還是開會比較多啦，網路上面的串連好像就用 FB 而已。</p>
A7 會用 FB 等與其他商家作互動串連。→Medium	
A8	受：(商家間)都打電話啦，不然就叫客人直接跟他們聯絡..
A8 幾乎不去用電腦，所以也不會用 IT 與商家連絡。→Low	



Factor		Item		Definition / Evidence			
Moderating Variables		IT-enabled Collaboration with Customers		商家透過 IT 與 Å U«È 互動的程度			
A1	A2	A3	A4	A5	A6	A7	A8
Medium	Medium	Low	High	Medium	Low	Medium	Low
A1		<p>訪：您在使用電腦方面的頻率？</p> <p>受：我上班幾乎都是電腦，然後下班也是會偶爾看一下 Facebook 或部落格，如果有上就是看一兩個小時這樣。</p> <p>訪：會不會使用電腦和之前的客人互動？</p> <p>受：之前我常跟他們互動啦，像來這邊的客人我會拍照片上傳部落格，然後寄給他們。可是後來我就懶得...反正我就不是很想經營啦...。以前會常常做，現在就懶得做。</p> <p>訪：您在留言板上與顧客的回應頻率多嗎？</p> <p>受：之前有啦，但後來我幾乎很少去看它。</p> <p>受：我會在部落格上放一系列的圖片、當天的心情、與顧客互動的情形等等。像望龍埤是我先介紹出來的，所以有很多顧客會看到然後打電話來詢問。</p> <p>受：之前過年或什麼節日會送個賀卡給顧客，現在都沒弄。</p> <p>受：我很少用 Email 跟顧客聯絡。</p>					
摘要：之前很常與顧客互動，近期較少，平均而言頻率尚可。 → Medium							
A2		<p>訪：留言板你大概是多久會去看？</p> <p>受：信箱每天都會看，留言板我會設定有留言的話會寄到信箱，再去做回覆。</p>					
摘要：每天會收信，偶爾與顧客互動。 → Medium							
A3		<p>受：網路行銷這些都是我老婆和我女兒幫我處理。</p> <p>受：之前做了網頁之後，有台北幾家顧客(大戶)來訂，之後我就很忙，哪有時間去看那個網頁，所以整個零售商這一塊就整個中斷掉。那當然將來我那一邊做的話就不能忽略這一塊。</p> <p>受：留言是一定有，只是目前比較少，因為你...坦白講，人就是有新的東西比較有吸引力，現在我們就是沒有去更新.....</p> <p>受：(留言)通常是由我老婆做回應，但是可能不高啦。</p>					
摘要：互動由家人處理，且非目前主力，頻率極低。 → Low							
A4		<p>受：我會利用很多很多不同的資訊廣告幫民宿做 Push。</p> <p>受：讓民宿的粉絲團，自然而然地認識民宿的周遭事物，不是強烈的置入性。其實就是我把我的生活的一些過程 show 在 (Facebook) 上面。像有很多人就說老闆你可以當望龍埤的代言人。</p> <p>受：我都會去 google 搜到網友文章。我把它(某一篇文章搜尋到的網友文章)PO 在網路上面的時候，每個人解讀不一樣。這會把我的感覺寫出來。</p>					

摘要：每天都會透過各種平台與顧客互動與了解顧客。 → High	
A5	<p>受：我會(定期)更新民宿資訊，然後每天大概就是上網看一下有誰寄信給我。</p> <p>訪：所以您跟客人大部分都是透過 Email 來溝通嗎？</p> <p>受：很少，大部分都是接電話，因為其實客人也很少用 Email。</p> <p>受：偶爾會透過 Facebook 跟客人互動，但是比較少。像是上一次客人來，他們感覺不錯，然後後來他們就看到我們門口那個歌仔戲的照片，然後他們就跟那個照片合照，合照了以後他們就上那個 Facebook，就把照片貼上去，然後我就會在上面說讚，然後跟他們說歡迎再來。然後後來他們那個主辦人來宜蘭還專程做蘿蔔糕送來給我。</p> <p>受：有客人在留言版上跟我留言。</p> <p>受：然後也有客人透過 Facebook，就是跟我說，因為他曾經問我說他們過年想要去哪一家餐廳吃，來宜蘭吃飯，我就推薦給他，然後他後來就透過 Facebook 跟我謝謝，因為那一家真的又好吃又便宜。</p> <p>受：有一兩個客人會在 Facebook 上說生日快樂，老闆娘最近好不好。然後會有客人在部落格跟我說我的早餐很好吃。</p>
摘要：有些許顧客會與之互動，頻率尚可。 → Medium	
A6	<p>訪：那有你需要帳號密碼登入的平台嗎？</p> <p>受：沒有耶，那些我不會操作所以...</p> <p>訪：那有部落格嗎？</p> <p>受：我沒用耶。之前也許有我也不知道，好像有一個，但如果沒持續一直用，斷掉就沒用了啊。</p> <p>訪：那有用像 Facebook 嗎？</p> <p>受：Facebook... 現在沒耶。用我自己的名字而已。跟我自己朋友聊一下而已。</p> <p>訪：那有來過這裡的顧客會加你 Facebook 嗎？</p> <p>受：恩... 他不知道我。</p> <p>受：我會固定收信。</p> <p>訪：那會有顧客寄 Email 給你嗎？頻率多嗎？</p> <p>受：會會。不多，大部分還是打電話。</p> <p>受：之前有留言版，客人說有留言，但就沒有看到。所以我很生氣，就沒有用了。</p> <p>受：有一些比較工夫(費力)的會寄(透過 Email)幾張照片給他們(客人)。</p>
摘要：僅與極少數顧客透過 Email 互動。 → Low	
A7	<p>訪：會用平台與顧客互動留言嗎？</p> <p>受：互動嗎？會阿會阿，留言阿什麼的。</p> <p>受：像留言板應該是很好用，像就跟我們反應這邊蚊子很多，我就要快點處理，像有人說很髒亂阿，我就要趕快掃一掃。</p>

摘要：認為留言板很好用，有時與之互動。→ Medium

A8

訪：你們有什麼部落格嗎？會在上面更新東西嗎？

受：有啦，都是我大兒子在用，不然就上次都是我女兒在用。有時候會用不然都沒用。

受：我以前在做總幹事時，我會每天去給它看上面的那個網站，我現在沒做總幹事我就沒去看。現在都叫我兒子去用。

訪：有人會在(平台)上面問說你這邊...？

受：沒沒沒，都打電話。在網路上看到然後他打電話給我。如果你沒透過電話要來吃我也不讓他吃。

摘要：有互動平台但幾乎沒有在使用。→ Low



Factor		Item		Definition / Evidence			
Independent Variables		Market-sensing Capability		商家透過合作平台感應市場的程度 資料收集/資料轉換為知識/決策			
A1	A2	A3	A4	A5	A6	A7	A8
Medium	Medium	Low	High	High	Low	High	Low
A1		<p>訪：有覺得透過平台了解到顧客想要的是什麼嗎？</p> <p>受：對可以，但是每個人需求不同，像是有的喜歡偶像劇就要去向卡幄汀那種的。</p> <p>訪：為何比較堅持自己的定位，而不跟著市場趨勢走？</p> <p>受：會知道啦(趨勢)，但因為如果要改套房還要花錢，至少三五十萬要賺要很久，不划算啦。</p>					
A1 僅有對商家或是顧客資料做基本的了解，並沒有想要隨市場趨勢而在經營上做任何改變。→Medium							
A2		<p>訪：如何得知顧客的喜好？</p> <p>受：多出去看，合作也可以多了解。</p> <p>訪：是否會參考顧客的留言？</p> <p>受：會阿，一般都是會問一些水果什麼時候可以收成，這些對我們有幫助阿。</p> <p>訪：是否覺得透過這些平台可以收集到比較多的資料</p> <p>受：有限，但大致上可以了解顧客的感受。</p> <p>訪：會去了解業者經營狀況？是否有幫助？</p> <p>受：當然會去了解啦，從網站看一般來講都會，但那都是皮毛，還是要現場看，但還是有幫助會參考啦。</p>					
A2 會去主動了解顧客喜好和商家經營狀況，但希望是透過親身體驗，而網路的資訊則是作為輔助的參考工具。→Medium							
A3		<p>受：得知那些農場經營的有在做 DIY 這樣，最近這幾年很多餐廳看到這個產品，知名度打開才開始做 DIY。</p> <p>訪：顧客提供的資訊是否有幫助？</p> <p>受：目前我感受不到啦，將來或許會用的到啦，因為目前就是主攻在做(點心)這方面。</p>					
A3 著重在自己的產品與服務開發，並沒有特別去針對顧客或是商家的資訊做收集或是研究。→Low							
A4		<p>受：當產品和服務的差異性出來的時候，所有資源往你靠，很明確很明確，各行各業都一樣，所以一定要做好自己保持自己的強項。</p> <p>受：我知道我自己的客層在哪邊，我了解我的顧客，這很重要。</p> <p>受：所有商家我一定去涉略過，像吃的餐廳也好我一定嘗試過，所以會先了解商家的產品，在了解顧客需求的是什麼，所以的資訊我一定會都先涉略過。</p> <p>訪：透過了解其他商家的經營狀況與內容是否對服務提供上有幫助？</p> <p>受：當然啦，因為如果我介紹的商家顧客很滿意的時候，相對來講對卡幄汀是很加分的。像什麼民宿阿，我都會去</p>					

	<p>了解，因為我在網路上做的功課其實還算蠻多的。</p> <p>訪：如何篩選來拍攝的偶像劇？</p> <p>受：先了解劇本、男女主角、拍攝角度、這部戲的觀眾群大概在哪裡。</p>
<p>A4 充分的了解其他商家的資訊，也了解自身的優勢和定位在哪裡，非常清楚自己的客層在哪邊，成功的鎖定現在流行的偶像劇風潮趨勢，並作為廣告的利器。→High</p>	
A5	<p>訪：是否會先透過平台所提供的資訊去對商家做一些基本的了解？</p> <p>受：會，會阿。</p> <p>訪：宜蘭產業可能會有那些發展，會不會去綠博有什麼樣的配合？</p> <p>受：有啦，他憑綠博的門票我就給他優惠，像這個部分就是宜蘭縣政府有在網路上說，如果憑綠博就會有優惠這樣。</p> <p>訪：所以您認為透過網路平台可以知道下個月或是下下個月會有什麼活動？</p> <p>受：會，會知道。</p> <p>訪：您覺得可以透過這樣的資訊平台能有學習的能力？</p> <p>受：會阿會阿，就像說以前我沒注意到我的窗簾是太亮的，透過 Facebook 我知道他們是來休閒想要睡晚一點，可是我的窗簾太薄，我就會去換掉換成比較厚的，透過他們告訴我，我去改進這樣。</p> <p>受：我們原來旁邊原本是沒有玻璃屋，原來旁邊是只有帳棚，後來就是剛好我們有這個機會就做改變，原本帳棚在右邊，早上起來就比較會有太陽，如果做在這邊坐比較不會那麼熱。客人會說好像這邊也可以坐下來。</p>
<p>A5 收集資料上的功課相當足夠，並且都有一定程度上的了解，例如：其他商家的資訊、活動舉辦資訊以及顧客的意見等，並且願意去配合執行與修正。→High</p>	
A6	<p>訪：會想要了解其他商家的資訊嗎？在經營上是否有幫助？</p> <p>受：我也是隨使用，我也不知道。</p> <p>訪：是否會了解其他業者的經營狀況？</p> <p>受：我怎麼會去看那些？就可能偶而碰面，問一下生意好不好這樣。</p> <p>訪：會去了解現在流行什麼嗎？</p> <p>受：不會耶。</p>
<p>A6 不會收集顧客的資訊，對其他商家的經營方式或是走向也沒有特別的了解，對市場的趨勢也不會關注。→Low</p>	
A7	<p>受：看人家外面有這樣做，我這邊葉子很多，本來是垃圾，我把它變成黃金，一片葉子搞不好可以賣五十塊，我把它加工變成框這樣就可以透過網路去行銷。</p> <p>受：我們會開發玉蘭花的冰沙阿，機器已經買了，因為夏</p>

	<p>天...，因為玉蘭花冰沙應該是很少人做啦，可能變成我們一個亮點這樣。</p> <p>訪：怎麼會想要做 DIY 和冰沙等等？是參考其他商家的嗎？</p> <p>受：像大礁溪農場有在做紅心芭樂冰，夏天要消暑，像玉蘭花也有解決中暑的，我想說從書裡面去找資料看到底有什麼功效，中暑吃冰有效，加上玉蘭花也有那個效果。</p> <p>訪：有考慮用這些資訊科技平台去了解現在大家比較喜歡什麼？然後去做服務上的改善？</p> <p>受：喔對阿，還可以阿，像內城那邊玩的又不一樣，是讓他們去逛農田阿鐵牛車。像我們這邊路小條，可能會玩的跟他們不一定，所以要用水果吸引大家來這邊消費。</p> <p>訪：了解其他商家的資訊對經營上是否有幫助？</p> <p>受：有喔，但要同一個區塊像枕山這邊或宜蘭縣的，有蠻多他是同一個平台的，因為你不可能說台北的跟我這邊串連，他從台北過來要一兩小時，如果這邊的話大家可以規劃一日遊或辦日遊。</p> <p>訪：是否能夠透過與商家互動預測未來的動向或是活動？</p> <p>受：我們都是開會比較多，網路上的串連都是用 Facebook 比較多。</p> <p>訪：您覺得這些平台帶來經營上的想法有多少？的程度有多高？</p> <p>受：還算蠻高的阿，因為有一些走錯方向就會一直錯掉，所以就是要知道他們現在在玩什麼，經營的方向可能就要改一下。</p> <p>訪：那可以透過 Facebook 猜到他們未來會做什麼嗎？</p> <p>受：會阿會阿，有時候他們也會像我們這樣不小心廣告，就大概可以看到他們在玩什麼東西。</p>
	<p>A7 在其他商家有一定程度的了解，希望能夠共同規劃顧客可能會喜歡的套裝行程。對於現在市場趨勢都會做一定的學習與改變，而且很了解自己擁有的資源並加以利用。→High</p>
<p>A8</p>	<p>訪：除了有機餐之外，會不會想要去改變或是學一點新的東西。</p> <p>受：阿那都是我的下一代的事情啦，我認為這樣就很好了。</p>
	<p>A8 不會收集其他商家資訊、顧客意見或是市場資訊，也沒有意願去學習新的東西。→Low</p>

Factor		Item		Definition / Evidence			
Independent Variables		Customer-linking Capability		商家透過合作平台連結顧客的程度 吸引顧客/獲得顧客/維持顧客			
A1	A2	A3	A4	A5	A6	A7	A8
Medium	Low	Low	High	Medium	Low	Medium	Low
A1		<p>訪：申請 FB 的主要目的是？</p> <p>受：放一些當天拍的照片和心情，很多人都是寫字，但我就是有字有照片。</p> <p>受：我會在部落格上放一系列的照片、當天的心情、與顧客互動的情形等等。像望龍埤是我先介紹出來的，所以有很多顧客會看到然後打電話來詢問。</p> <p>訪：部落格主要是？</p> <p>受：介紹旅遊、美食等，和民宿比較有關係的。之前有放一些家裡的花和葡萄的成長過程或是和客人互動情形，像是我今天去望龍埤我就分享那邊的風景阿。</p> <p>訪：會加入一些來過旅客 Facebook 嗎？</p> <p>受：我都有將他們的資料建檔，會聯繫他們，比如說過年或什麼節日會寄一些賀卡什麼的。</p> <p>受：之前我常跟他們互動啦，像來這邊的客人我會拍照片上傳部落格，然後寄給他們。可是後來我就懶得...反正我就不是很想經營啦...。以前會常常做，現在就懶得做。</p>					
A1 以前會利用部落格、照片和文字成功的吸引顧客的注意來消費，並且保持與顧客良好的互動關係，也有部分客人會再次上門消費，但現在並沒有很想要經營，所以就很少在和顧客互動。→Medium							
A2		<p>訪：會幫來訪顧客建檔？</p> <p>受：這倒是沒有，一般就是簡單的透過宅急便的寄貨單存根來看，哪些顧客比較常來就會知道，但是這些東西建檔會比較方便。</p> <p>訪：會與顧客有互動嗎？</p> <p>受：一般就是產季到了就打個電話。</p> <p>訪：那你覺得透過這樣的平台是否可以提升和顧客的關係？</p> <p>受：我覺得你們這個蠻不錯的，有提升，但還是要看瀏覽率。</p>					
A2 目前對於顧客的關係維護還停留在比較傳統的方式，往後希望透過這些平台來幫忙建立管理顧客的關係。→Low							
A3		<p>受：吸引顧客就是要把噱頭搞很大這樣，例如千喜點心週年慶這樣。</p> <p>受：之前做了網頁之後，有台北幾家顧客(大戶)來訂，之後我就很忙，哪有時間去看那個網頁，所以整個零售商這一塊就整個中斷掉。那當然將來我那一邊做的話就不能忽略這一塊。</p> <p>訪：會考慮幫顧客資料做建檔嗎？</p> <p>受：目前沒有，但之後一定會啦，會分類一下顧客，怕重</p>					

	<p>複的顧客來玩重複的東西，我們希望是就盡量玩不同的，這樣子來他們比較有感覺，比較有永久性啦。</p>
<p>A3 先前對顧客的建立與關係完全忽略，加上現在處於轉型的階段，與顧客互動的機會極少，轉型之後決定會好好的建立和管理。→Low</p>	
A4	<p>受：我會利用很多很多不同的資訊廣告幫民宿做 push。 受：讓民宿的粉絲團，自然而然地認識民宿的周遭事物，不是強烈的置入性。其實就是我把我生活的一些過程 show 在 Facebook 上面。像有很多人就說老闆你可以當望龍埤的代言人。 訪：會幫顧客資料做建檔嗎？ 受：沒有其實都沒有，因為像我們包括在寫什麼住房登記單，我們都沒建檔，因為這會卡到敏感的個人資訊公開的問題，我們的網站安全度沒這麼高，萬一被駭客會流出去。 受：很多人會加我朋友，粉絲團我是沒經營，但其實這個互動是很不錯的，你不用很商業行為，但就會讓人覺得好想要再來。</p>
<p>A4 利用許多方式增加了曝光度，使用最自然的方式而並非置入性行銷的方式吸引顧客來消費。對於來消費的顧客資料安全相當重視，改用以 FB 的方式與顧客做聯繫和互動。→High</p>	
A5	<p>受：偶爾會透過 Facebook 跟客人互動，但是比較少。像是上一次客人來，他們感覺不錯，然後後來他們就看到我們門口那個歌仔戲的照片，然後他們就跟那個照片合照，合照了以後他們就上那個 Facebook，就把照片貼上去，然後我就會在上面說讚，然後跟他們說歡迎再來。然後後來他們那個主辦人來宜蘭還專程做蘿蔔糕送來給我。 受：然後也有客人透過 Facebook，就是跟我說，因為他曾經問我說他們過年想要去哪一家餐廳吃，來宜蘭吃飯，我就推薦給他，然後他後來就透過 Facebook 跟我謝謝，因為那一家真的又好吃又便宜。 受：有一兩個客人會在 Facebook 上說生日快樂，老闆娘最近好不好。然後會有客人在部落格跟我說我的早餐很好吃。 受：有客人說雖然照片拍的不怎麼樣，但來就會有一種驚喜感動，我覺得然照片拍的不怎麼樣，但實際感覺比較重要。 受：像我有客人一年半就來六次。 受：痞客邦就有可人就跟我的留言，我的星星是四顆星星，然後願意再回來住的是五顆星星。 訪：是否對顧客的意見或是喜好做一些決定上的改變？ 受：會，例如說客人留言說閣樓的窗簾太亮，我就會去多加一層。 訪：會幫顧客建立資料檔案嗎？ 受：會，就是用在電腦上面。</p>

A5 並沒有做太多吸引消費者注意力的行為，希望以最真實的一面呈現給消費者，不過與來消費過的顧客有相當良好的互動。→Medium	
A6	<p>受：之前有留言版，客人說有留言，但就沒有看到。所以我很生氣，就沒有用了。</p> <p>訪：那有來過這裡的顧客會加你 Facebook 嗎？</p> <p>受：恩...他不知道我。</p> <p>受：有一些比較工夫(費力)的會寄(透過 e-mail)幾張照片給他們(客人)。</p> <p>訪：所以還是希望旅客自己過來感受？</p> <p>受：對阿，所以有客人是別人介紹來的，我也不想用騙的阿。</p> <p>受：因為不善於一直做 push。</p>
A6 沒有使用任何方式吸引顧客消費，僅透過 e-mail 和少數顧客有來往。→Low	
A7	<p>受：現在我就從宜蘭縣政府的教育處那邊我們都有帳號，我自己也有開部落格，我現在自己有建一個，然後就是慢慢做一些活動弄上去。</p> <p>受：網路現在也是蠻重要，像是打卡可以底十塊這樣。</p> <p>訪：會用平台與顧客互動留言嗎？</p> <p>受：互動嗎？會阿會阿，留言阿什麼的。</p> <p>受：這邊生態也很豐富阿，像樹蛙我有去看把它拍起來，然後傍晚有螢火蟲。就會放上去。</p> <p>訪：往後會想要透過自己的粉絲團跟顧客互動嗎？</p> <p>受：對阿，就是請他來打卡加入我們為好友。我是聽同樂國小的老師講，這種點一個讚的力量很大。</p>
A7 對於如何吸引顧客上門有很多想法，並且有成立粉絲團與顧客互動，維持良好的關係，不過剛轉手經營尚未開始有顧客上門消費。→Medium	
A8	<p>受：7-11 有一本 DM，也有我們的，來宜蘭吃喝玩樂，有一本很厚的，愛買也都有。</p> <p>訪：張媽媽之後會跟顧客有互動嗎？</p> <p>受：會阿唱歌仔戲給他們聽阿。</p>
A8 都是靠 DM 來吸引顧客上門消費，顧客的關係維持也僅限於當場面對面的時候，並沒有事後的互動。→Low	

Factor		Item		Definition / Evidence			
Independent Variables		Promptness		商家透過合作平台即時回應/取得的程度 回應(取得)商家/顧客/市場			
A1	A2	A3	A4	A5	A6	A7	A8
Medium	Low-Medium	Low	High	Medium	Low	Medium	Low
A1		<p>訪：有沒有覺得這些平台多了哪些功能會更方便？</p> <p>受：都很完善了，像 Facebook 的分享功能也是非常好，可以看到即時的訊息。</p> <p>訪：會有人 Facebook 來問一些民宿相關的問題嗎？</p> <p>受：有，像之前就有兩個人因為這樣來住。</p> <p>訪：會直接的與商家互動嗎？</p> <p>受：會阿，我看到其他商家 PO 文都會在 FB 上互相關注。</p>					
A1 即時的與商家和顧客有互動來往，但是強調低調經營對市場趨勢走向並沒有想要追隨。→Medium							
A2		<p>訪：旅客都是透過電話嗎？還是留言？</p> <p>受：旅客大部分都是電話，看到有留言的話我趕快就回，信箱我都會看，一般我都會設定有留言就會寄到信箱這樣。</p> <p>訪：對於市場的改變有何應變？</p> <p>受：都會和其他商家討論一些(大部分為當面)比較新的東西，教學一下這樣。</p>					
A2 定期收信即時回覆給顧客，但對市場趨勢都是以當面的方式在做討論。→Low-Medium							
A3		<p>受：現在就是設備還沒好，所以就是叫我老婆和女兒先學要怎麼快速更新資訊這樣，因為我還有工作。</p> <p>受：留言是一定有，只是目前比較少，因為...坦白講，人就是有新的東西比較有吸引力，現在我們就是沒有去更新...</p>					
A3 礙於對 IT 的知識不足，所以幾乎沒有在做更新，也極少回覆顧客提出的留言。→Low							
A4		<p>受：像顧客有提到卡幄汀，我都有設定會自動寄信，我一定會馬上搜尋出來。</p> <p>訪：老闆是否會直接對顧客的問題或意見做回覆？</p> <p>受：我每天都會去搜尋別人提到卡幄汀的文章，會去參考做回應這樣。</p> <p>訪：透過了解其他商家的經營狀況與內容是否對服務提供上有幫助？</p> <p>受：像什麼民宿阿，我都會去了解，因為我在網路上做的功課其實還算蠻多的。我每天在網路上花的時間很多。</p> <p>受：當初看準流行偶像劇，就有多曝光，就吸引很多人來。</p>					
A4 即時的回應顧客的問題和了解商家最新資訊，並且在網路上做了許多功課以							

了解現在市場流行的趨勢。→High	
A5	<p>受：我會定期更新民宿資訊，然後每天大概就是上網看一下有誰寄信給我。</p> <p>訪：是否比較能夠即時回應顧客的需求和取得顧客資訊？</p> <p>受：會，但像另外一家卡幄汀也是這樣。</p> <p>受：我們原來旁邊原本是沒有玻璃屋，原來旁邊是只有帳棚，後來就是剛好我們有這個機會就做改變，原本帳棚在右邊，早上起來就比較會有太陽，如果做在這邊坐比較不會那麼熱。客人會說好像這邊也可以坐下來。</p> <p>訪：宜蘭產業可能會有哪些發展，例如：會不會去綠博有什麼樣的配合？</p> <p>受：有，他憑綠博的門票我就給他優惠，像這個部分就是宜蘭縣政府有在網路上說，如果憑綠博就會有優惠這樣。</p>
A5 即時的回應顧客提出的疑問與意見，並且對於近期舉辦的活動都會配合。→Medium	
A6	<p>訪：所以你有看到顧客的文章或留言？有回應嗎？</p> <p>受：我不會回應啦。</p> <p>訪：會針對一些意見做改變嗎？</p> <p>受：不會啦，沒什麼好改變的啦，沒有嚴重不用改啦。</p> <p>訪：會針對流行的趨勢去做改變嗎？</p> <p>受：不會不會，流行的東西我不太懂。</p>
A6 除了重大問題，不然不會做出任何改變或是回應，也不會追隨現在市場的趨勢。→Low	
A7	<p>受：像留言板應該是很好用，就跟我們反應這邊蚊子很多，我就要快點處理，像有人說很髒亂阿，我就要趕快掃一掃。</p> <p>訪：您覺得這些平台帶來經營上的想法有多少？的程度有多高？</p> <p>受：還算蠻高的阿，因為有一些走錯方向就會一直錯掉，所以就是要知道他們現在在玩什麼，經營的方向可能就要改一下。</p>
A7 對於未來顧客的意見會即時做出回應，並時常關注市場趨勢以應變市場環境的改變。→Medium	
A8	<p>訪：有人回透過網站在邊留言問問題嗎？</p> <p>受：沒沒沒沒，都是打電話。</p> <p>訪：有客人留言張媽媽會去回覆嗎？</p> <p>受：不會不會。都當面講啦。</p> <p>訪：你們有什麼部落格嗎？會在上面更新東西嗎？</p> <p>受：有啦，都我大兒子在用，不然就上次都我女兒在用。有時候會用不然都沒用。</p> <p>受：(商家間)都打電話啦，不然就叫客人直接跟他們聯絡。</p>
A8 僅使用電話作為聯繫的工具。→Low	

Factor		Item		Definition / Evidence			
Dependent Variables		Performance		收入增加/顧客關係/商家關係			
A1	A2	A3	A4	A5	A6	A7	A8
Medium	Low	Low	High	Medium	Low	Low-Medium	Low
A1		<p>訪：有因為透過 Facebook 認識原本不認識的商家嗎？</p> <p>受：也是有啦不過基本上就是讚一下，留言這樣子。</p> <p>訪：所以其實商家之間的關係還不錯？</p> <p>受：有阿有阿，我們都是有在互動。</p> <p>訪：是透過什麼在販賣商品？</p> <p>受：現在在 Facebook 上有一個社團是專門在販賣的，做公益，所以我現在是希望有一個平台可以專門販售，因為 Facebook 一定要有帳號才能使用。</p>					
A1 透過 Facebook 與商家維持不錯的互動關係，並且利用此增加商品部分的銷售金額。→Medium							
A2		<p>訪：會不會利用這樣的互動平台找到旅遊產業的新朋友？</p> <p>受：會阿會阿，會想阿，就要多認識阿。</p> <p>訪：會希望可以透過這樣互動？</p> <p>受：對，一定是要互動很好有交情人家才會跟你講深入一點，沒有交情沒人教，生意就會不好了阿。</p>					
A2 非常注重與其他商家的關係，希望可以從中學學習到經營上的一些方法，但目前僅限於面對面。→Low							
A3		<p>受：台北那邊都是從平台得到我們的資訊這樣，看到我們的產品，就打電話來問這樣，就有進貨試一下，阿不錯就繼續訂這樣。</p>					
A3 很少用資訊科技相關的東西，所以並沒有太大績效成長→Low							
A4		<p>受：卡幄汀很大的優勢就在三、四年前部落格盛行的時候，我可以說累積下來了好幾百篇的文章，那個就是幫我們背書，消費者一定會去做搜尋。</p> <p>受：像我都會運用一些免費的資訊科技來行銷。</p> <p>受：現在我的 FB 朋友有 900 多個，商家或顧客，從 200 多個後我就沒主動加入了，一般的商家或是顧客我會評估一下，不是太商業行為的話我會同意加入他好友。</p> <p>受：很多人會加我朋友，粉絲團我是沒經營，但其實這個互動是很不錯的，你不用很商業行為，但就會讓人覺得好想要再來。</p>					
A4 利用部落格和 FB 等免費的平台成功增加許多收入和降低了成本，同時也與商家和顧客建立了不錯的互動關係(非商業)。→High							
A5		<p>受：偶而會跟附近的商家用 Facebook 互動，照片讚一下這樣。</p> <p>訪：是否有認識其他地區的商家然後互動？</p> <p>受：其他的區有，像內城那邊有，我們有時會幫他按讚。</p> <p>訪：透過這些資訊科技平台是否能夠有新的顧客來訪嗎？</p>					

	<p>受：會，但覺得不多，因為現在各種平台太多了。</p> <p>受：然後也有客人透過 Facebook，就是跟我說，因為他曾經問我說他們過年想要去哪一家餐廳吃，來宜蘭吃飯，我就推薦給他，然後他後來就透過 Facebook 跟我謝謝，因為那一家真的又好吃又便宜。</p>
<p>A5 利用這些平台並沒有增加太多的收入，但是認識了許多商家與顧客，互動性也不差，維持著良好的關係。→Medium</p>	
A6	<p>訪：會不會用 Facebook 跟顧客或是商家互動？</p> <p>受：不會耶，就自己的朋友這樣。</p> <p>受：跟其他家交流阿，比較不會。</p> <p>受：不太善於在沒看到人的情況下去表達。</p> <p>受：大部分還是網路看到來的客人啦。</p>
<p>A6 收入主要來自於網路或是朋友介紹，但其實也非常有限。對於顧客和商家的關係上少有互動或是交流，也沒有意願要認識更多商家。→Low</p>	
A7	<p>訪：您有透過像資訊平台或是 Facebook 因此認識原本不認識新的業者？</p> <p>受：其實 Facebook 該怎麼講，有的都是看共同朋友，對阿，如果共同朋友很多就會知道我是誰，因為我都是用假的名字阿。其實他可以透過誰誰誰這樣知道我是誰。</p> <p>受：例如說我們一些業者，你跟他還蠻好的，然後你又跟他是朋友，那我也知道我可能認識你，但可能沒交集，但可以試著加他看看。</p>
<p>A7 由於剛轉手尚未開始經營，所以跟顧客之間的關係還沒完全建立，而目前透過 Facebook 認識新的商家並與附近商家保持密切互動。→Low-Medium</p>	
A8	<p>訪：你有沒有覺得用網路那種比較多人來？</p> <p>受：我跟你說，我這邊人來都是看 DM，看什麼放牛吃草。</p> <p>受：(商家間)都打電話啦，不然就叫客人直接跟他們聯絡。</p>
<p>A8 的都是靠實體的宣傳工具來增加銷售量，與顧客和商家的互動主要都是靠電話，並不會使用網路來聯絡。→Low</p>	