

## BUSINESS MODEL ADAPTATION IN THE APULIAN AGRO-FOOD INDUSTRY: A PRELIMINARY STUDY.

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### ABSTRACT

This paper outlines a study into business model adaptation in the agro-food sector in the Italian region of Apulia. Given the lack of extant theory of business model adaptation, the study will take a field based approach to data collection, with no hypotheses to be tested. Interviews and associated data sources will be analysed to develop theory inductively. The purposeful sample contains firms considered to be highly innovative in the local context. Results from an initial batch of case studies indicate that the framework in as yet unpublished work (Chesbrough forthcoming; Doz and Kosonen forthcoming) will provide useful guidance.

### 1. INTRODUCTION

When we eat a pasta dish, our thoughts might go to the delicious flavours and textures, or to the simple lifestyle and traditions of its origins, or to its long history and possible introduction to the West by Marco Polo. We might even think of the health benefits being gained via the anti oxidants in the ingredients.

Rarely, however, would we think of the advances in science and technology reflected in the dish and its provision to us. It is most unlikely any consumers would connect the dish with concepts such as open innovation (Chesbrough forthcoming), or the lead user (von Hippel et al. 1999). Nor would they likely consider the impact on production processes of technological changes that occur elsewhere in the economy.

By the same token, anybody who participates in the supply chain for that pasta dish can be more or less cognisant of technological changes and their effects. Indeed, they can (decide to) be an instigator or recipient of innovation. Or even simply not notice it at all.

For example, rising real wage levels and labour market participation, together with evolving family structures and lifestyles have altered the way household services are provided and consumed. Similarly, the various cooking techniques require different preparation technologies, so that pre-cut and pre-cooked vegetables should contain differing amounts of water depending on how they are to be finally heated.

In this paper, we outline a study into the approach to business model adaptation found in the agro-food sector in the Italian region of Apulia. One of twenty Regions, Apulia is an important source of agro-

food production: over a quarter of Italian durum wheat, a third of its tomatoes, and 40% of its olive oil (ISTAT 2006).

Official data show that the food industry is a significant part of the Regional manufacturing sector, contributing 11% of value added, 12.7% of employment and 10% of the number of firms. All three data are above the national average for the food industry (ARTI 2008). Some notable examples of local firms are Pasta Divella or Granoro whose products are available in Australia. Other manufacturers, who use Apulian grown products have established production operations there (eg Barilla, Peroni, Heineken) but no R&D or other strategic functions.

In 2007, Italy had 4.5 million firms of which 94.8% employed fewer than 10 people and 4.6% employing between 10 and 49 people (ISTAT 2009). Such fragmentation, especially in traditional sectors, leads to an above average proportion of self-employment. According to Eurostat data reported by ISTAT (2009) almost one in three are self employed, which is roughly three times the European average. This, in turn, has implications for investments in innovation and productivity. One difference at regional levels is that centre-north regions display relatively greater product innovation, whereas in the southern regions process innovation accounts for a greater percentage (24.6%) relative to the centre-northern regions (20%). This divergence is accentuated in Apulia: 7.9% on product innovation and 25.5% on process innovation.

The preponderance of micro firms and SMEs is such that lack of information, competences and knowledge impose constraints on the market. Although cognisant of their limitations, the firms often do not know where and how to express their requirements for innovation. While a recent Report by the Apulian Regional Agency for Technology and Innovation (ARTI) identified a dynamic industry in search of product and process innovations, the latter does not seem to occur via direct purchase of technologies, rather through forms of collaboration with research institutions to solve specific problems (ARTI 2008.)

According to the dynamic capabilities approach (Teece et al. 1997; Eisenhardt and Martin 2000; Zollo and Winter 2002) sustained superior performance in new and fast moving environments depends crucially on the deployment and re-deployment of superior strategic assets as appropriate for those environments. One such asset is the firm's business model (Malone et al. 2006; Zott and Amit 2007b).

While the agro-food sector is not generally considered to be fast moving, in reality, such capabilities can be useful in slower moving markets. For example, economists do not place a temporal definition on the concepts of short and long run, hence similar considerations can apply regardless of how long is 'the short run.' Teece (2007) implicitly acknowledges this when he states that the speed and frequency of using dynamic capabilities should be balanced against the speed and stability of the firm's ecosystem, but also when he states that possessing dynamic capabilities "is *especially* relevant" (Teece 2007: 1320 our emphasis) to certain situations.

Adaptation of the business model should therefore be an important area of practitioner and scientific interest (Chesbrough and Rosenbloom 2002; Pateli and Giaglis 2004; Zott and Amit 2007a.) Practitioners, in this sense, also include for example financiers and public policy makers. They have an interest in knowing whether firms have the capacity to adapt and innovate, as well as how they should adapt over time. Perhaps more important is knowing what impediments make adaptation difficult. While financiers might wish to intervene directly in the change process (Lerner 1995), public policy makers should aim to provide appropriate regulatory and related support for the effective evolution of business models and regional economic development (van der Sijde and van Tilberg 2000; European Industry Fund 2005; Lazzeretti and Tavoletti 2005.). We thus follow the spirit of Van de Ven's "engaged scholarship" (Van de Ven 2007).

This paper is part of a larger program to study the process of business model adaptation in innovation based firms. It therefore in principle has a broader perspective than eBusiness alone – where most business model research has occurred thus far - but will still not cover the full spectrum of economic activity. The research program will also be grounded in field research, rather than theory (Yin 1981; Eisenhardt 1989; Yin 2003; Eisenhardt and Graebner 2007). A similar study to the Apulian one will be conducted in South Australia. The reason for choosing these industries and regions is: the source of funding, namely an agreement on collaborative research between Apulia and South Australia; the fact

that agro-food business activity is strong in both states; both states display a preponderance of SMEs in their industrial base; minimisation of the heterogeneity of environmental factors (Davidsson 2008).

In Section 2 we review relevant literature and motivation for the study. Our current and intended research methods are presented in Section 3. Section 4 contains a discussion of preliminary findings from an initial batch of interviews with experts, firms, entrepreneurs. Section 5 presents our Conclusion and Implications for Future Research.

## 2. REVIEW OF RELEVANT LITERATURE

In this section, we present three calls for research on business model adaptation from senior scholars who have conducted major studies in this field and other relevant literature.

Zott and Amit (2007a) list this among the fields of research that could follow from their important study, that takes an entrepreneurial perspective on business models.

One important outcome from the study by Chesbrough and Rosenbloom (2002: 552) into Xerox Corporation's experience with business models and innovations, is highlighting the importance of understanding the process by which business models develop and evolve – because it is so difficult to achieve:

We need to learn more about the forces that facilitate and impede the search for constructive adaptation in the elements of an extant business model.

Consistent with Zahra et al (2006), they hypothesize a difference in this respect between “independent ventures” and “established firms”. It is, however, not tested.

Another call for scientific research in this field, also acknowledging its practical importance is by Pateli and Giaglis (2004: 311). They state that it is “one of the most challenging areas for business model research in the future”, partly because existing research on this topic was still very tentative and generic, partly because of the integrative - hence complex - nature of the question.

The calls for research on business model adaptation are consistent with Lambert's (2006) highlighting the need for inductive research to develop appropriate frameworks and business model theory. This is partly because the business model concept has only recently received attention in the academic world, whereas it has been utilised for a much longer time amongst managers and entrepreneurs. Pateli and Giaglis (2004) present the scholarly developments that have occurred in various sub-domains of business model research, together with their respective limitations by that time.

The evolution of how the term has been used in scientific research is analysed by Ghaziani and Ventresca (2005) using bibliometric methods, as a case of how cultural change occurs in a particular field. They studied use of the term ‘business model’ over time and within different disciplines. Their conclusion is that differences in nuances in the definitions and the relative emphasis on different aspects of business models are likely to remain, as “subcultural interpretation of the global category *business model*.” (Ghaziani and Ventresca 2005: 532, emphasis in the original.)

As a result, despite its very short history of academic research, the literature on business models is sufficiently mature to move beyond the definition stage, no longer at risk of being a mere fad once the dotcom bubble burst (Osterwalder 2004), but being heralded as a potential substitute for industry as a unit of analysis (Osterwalder et al. 2005). In fact, it has also moved beyond a focus on e-business (Mahadevan 2000; Afuah and Tucci; Amit and Zott 2001; Weill and Vitale 2001) to other sectors such as biotechnology (Bigliardi et al. 2005; Pisano 2006; Rothman and Kraftt 2006; Willemstein et al. 2007). Indeed, Malone et al (2006) conducted a wide-ranging empirical study of *all* publicly-traded US companies in COMPUSTAT from 1998 through 2002, during which they found that business model “is a useful construct and can predict performance.” (Malone et al. 2006: 4.)

This sub-section provides a context that motivates the study of business model adaptation. Next is a discussion of existing literature on business model adaptation and its gaps.

## 2.1 Previous work on business model adaptation

A brief review of the scant scholarly research on business model adaptation follows.

There have been several examples of scholarly research in the field of business model adaptation (Papakiriakopoulos et al. 2001; Petrovic et al. 2001; Krueger et al. 2003; Andries and Debackere 2006; Swatman et al. 2006; Andries and Debackere 2007). They are, however, mostly focused specifically on eBusiness. They are also theory-based, rather than having been developed from observations in the field.

Petrovic et al (2001) present a normative “methodology for developing business models” based entirely on systems theory. The term ‘developing’ is used synonymously with ‘change’ and ‘adaptation’. While the methodology is internally coherent and soundly based upon systems theory, it focuses specifically on eBusiness business models and is not matched against the practice of business model adaptation.

Also in the eBusiness area was the study by Papakiriakopoulos et al (2001.) While they attempt a validation of the proposed framework, it, too, is designed entirely based upon theoretical considerations, rather than inductive research.

Swatman et al (2006) study business model evolution, combining quantitative and qualitative methods. Their study was at the industry level, with the focus on provision of online news and music in Europe. Closer to a firm-level framework for business model adaptation is their earlier paper (Krueger et al. 2003) in which they propose a core+complement approach to business model formation. The complementary component of the business model is where adaptation would occur. It was not within the scope of their studies, however, to delve into understanding the forces that do, or would, aid or hinder such adaptation.

More recently, Andries and Debackere (2006; 2007) have published scientific research on the topic of company-level business model adaptation in technology based new ventures. Their earlier paper (Andries and Debackere 2006) presented lessons from extant theory that appears relevant to the question of understanding business model adaptation. This paper, however, places far greater emphasis on dynamic capabilities. Andries and Debackere (2006) include dynamic capabilities in their analysis, but it does not take a central role. They conclude by saying that if routines can be identified, then it “would suggest that adaptation is indeed a dynamic capability and that dynamic capabilities exist in high-velocity environments.” (Andries and Debackere 2006: 106) In their other work, Andries and Debackere (2007) study the relationship between adaptation and performance, as measured by the firm’s continuing existing as an independent entity.

Most recently, Chesbrough (forthcoming) has presented as barriers to business model innovation, the conflict between new and old models, and as potential facilitator, an effectual approach towards experimentation together with the leadership required to implement it. Also in an as-yet unpublished work, Doz and Kosonen (forthcoming) present a model for business model renewal based upon their research on information technology firms that led to adopting the concept of strategic agility. The interaction between strategic sensitivity, leadership unity and resource fluidity determines the amount of agility displayed by the firms. These views of the agility/rigidity with respect to business model design and implementation are similar to the image of the ‘creosote bush conundrum’ that Burgelman and Grove (2007: 966) borrowed from Craig Barrett, former CEO of Intel. The creosote is a plant that apparently poisons the ground around it, so that no other plant can grow nearby. In business terms, this refers to a tendency for new ideas or approaches to be banished, hence inhibiting the firm’s capacity to adapt or to influence its environment.

This paper is part of a broader program, taking on the challenges set by these scholars. By accepting the challenge, business model based research can in turn contribute to scholarship on entrepreneurship, commercialisation and strategic management.

This section has reviewed relevant literature, pointing to some gaps for the current program to fill. The next section explicates the conduct of the study.

### 3. THE STUDY

This section outlines theoretical and operational elements for the study.

The dependent variable is ‘business model adaptation’, which embraces in its scope instances where

- Change did occur as per initial plan
- Change did occur, but differently from how it was envisaged
- Change did not occur, in cases where it
  - was sought, but did not eventuate
  - was not sought, but (with hindsight) it should have

We have avoided using the term ‘successful’, mostly due to the difficulty of defining it. For example, depending on the circumstances it can be taken to mean ‘profitable’, ‘helped avoid bankruptcy’, ‘implemented as planned and profitable’, ‘implemented as planned (but perhaps unprofitable!)’, ‘implemented not as planned, but likely more profitable than if the original plan had been implemented’, ‘thankfully, was killed.’

#### 3.1 Methods.

In this subsection, we present the methods used in the study.

In order to develop theory, we are following the inductive reasoning applied to business models by Amit and Zott (2001), but data collection will occur via interviews as well as documentary and other sources.

The interpretive, qualitative case method is suitable for the purposes of conducting a process study, to understand *how* and *why* business model adaptation occurs (Yin 1981; Eisenhardt 1989; Eisenhardt 1991; Markus and Lee 1999; Clarysse and Moray 2004; Van de Ven and Poole 2005; Eisenhardt and Graebner 2007).

There has been debate over the effectiveness and validity of using retrospective recollections in the case method (Golden 1992; Golden 1997; Miller et al. 1997; Hillebrand et al. 2001) revolving around the bias and reliability of the measure. One solution is to run real time longitudinal cases, together with retrospective accounts (Leonard-Barton 1990), as well as seeking documentary evidence, or seeking accounts from different perspectives, in order to enhance internal validity (Leonard-Barton 1990; Eisenhardt and Graebner 2007). These data and information could be from several participants in the original events being studied, but also from other observers who were somehow close to, or aware of, the events. Several firms who have participated to date in this study have indicated a willingness to continue interaction over time.

This approach is consistent with the view that organisational change is affected by different participants, none of whom can see the whole process (Buchanan and Dawson 2007), but who also make different contributions to the process, or who perceive differently the value of the process and its components.

The novelty of the business model concept and the fact that the firms under observation might also be contributing to the creation of new market domains, make it possible that Stacey’s (1995) prescriptions will apply. In particular, he cautions that having researchers approach the topic of strategy processes with a firm set of hypotheses runs the risk of them inadvertently attempting to fit the process data into their existing framework, rather than extracting meaning from the new experience. One difficulty will be the necessarily indeterminate environment of entrepreneurial activity – especially when developing new technologies and industries – matched with researchers’ objective of reducing uncertainty through synthesis (Stacey 1995; Sarasvathy 2001; Buchanan and Dawson 2007).

This contributes to making the research ‘messy’, but delivers added richness to the findings (Van de Ven et al. 1984; Zahra et al. 2006; Zahra 2007)

For this study, we have thus not created a list of hypotheses for testing. Rather, the research will follow an inductive approach, allowing the data to pull together, as it were, the different strands of literature or to suggest new thinking. The same approach was taken by Amit and Zott (2001) although their data were collected in a different manner. They constructed data completely from public documents, such as IPO Prospectuses (main source), company websites, analyst reports. We acknowledge, however, that no researcher enters the field as a *tabula rasa* (Eisenhardt 1989), hence have been developing thoughts on strands of extant literature that could afford useful lenses and then setting them aside (Gavetti and Rivkin 2007), in an attempt to maintain an open mind and allow the data ‘to talk to us.’ Thus the study cannot be purely inductive, but that is our orientation. For example, while one of the authors has a particular interest in the effectuation literature, none of its content was mentioned in interviews until the final question, in order not to direct the informant’s responses.

Special inspiration comes from the study by Bhawe (1994) who also followed the qualitative approach, conducting twenty seven interviews with entrepreneurs in New York state. Once the model was developed, Bhawe presented it to a group of entrepreneurs, to incorporate their feedback. Similarly, we intend sending our first analysis to our informants and to present it at a public workshop of agro-food professionals. The workshop is expected to provide more insights into firms’ practice and that of entrepreneurs and managers, as well as corrections to the analysis due to supplementary information from participants or the extraction of tacit industry-specific elements that the researchers might not have perceived. Further, workshop activities are aimed at generating discussion for policymaking by the relevant local and regional governments. It is likely that questions for further research will also develop.

Public notices about the workshop will be disseminated via the relevant Chambers of Commerce, the Provincial and Municipal government, the Young Industrialists Group.

This subsection has presented the methods adopted. Next, we explicate how potential case studies have been found.

### **3.2 Case recruitment.**

Initial selection of potential respondents was based on a variety of sources and methods and was complemented by the creation of a Case Protocol document (Yin 2003).

Expert interviews were conducted with individuals who have extensive knowledge of the industry through their professional experience as a service provider (eg consultant, financier) or other forms of observation (eg researcher, policymaker, policy adviser, industry association). Eight informants were formally interviewed as experts, but others within the authors’ networks contributed informally to the process. We conducted searches of reports and internet sites regarding the agro-food sector in particular, or innovation in general. We also visited firms’ own websites or other contributions to online communities. Indeed, several firms had their own Facebook presence. A snow-balling technique was also adopted, where we would ask informants to recommend potential firms or individuals for the study.

Based on these inputs, the firms were divided into broad groups that displayed high, medium or low actual and potential propensity for innovation. We explicitly sought as wide a definition of innovation as possible, given that often the natural inclination appeared to focus on technical innovations, rather than say ‘value innovation’ (Kim and Mauborgne 1999; Kim and Mauborgne 2005), or innovations in business relationships.

To determine who fell into the high actual innovator group, we selected those described in stronger terms, displayed in Table 1.

<b>Table 1</b> Terms used to indicate highly innovative firms
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Italian	English equivalent
Deciso, decisamente	Decided, decidedly
Grande/notevole/elevata sensibilita'	Large/noteworthy/elevated sensitivity
Dichiaratamente a favore	Openly in favour of
Dimostra di credere	Demonstrates belief in
Si e' distinta	Has distinguished itself
All'avanguardia	At the forefront
Continuo miglioramento	Continuous improvement
Spiccata propensione all'innovazione	Marked propensity for innovation
Un forte interesse	A strong interest

Whenever the wording was ambiguous (eg sensitivity towards innovation might not be reflected by action) the interview context was considered. For example, in some cases strong *interest* was tempered by poor financial resources, hence the firm was not listed among the high *actual* innovators. Medium level actual innovators were considered those who, for example, had displayed a 'certain' sensitivity or propensity to innovation, rather than it being described as 'strong', 'notable', or 'demonstrated.' Low level of innovation was considered to be reflected in wording such as 'not interested in' or 'reticence to' innovation. Several cases remained too difficult to allocate, based solely on the interview reports, so the external sources were used to aid the decision.

With a starting point of some thirty firms identified as highly innovative, interviews were initially arranged with the most senior person available. This was often the owner of the firm, but some were cooperatives, hence a single owner did not exist. None of the firms we contacted refused to meet us, although on occasion there was some confusion regarding the object of the meeting. In fact, at about the same time as one of the co-authors was visiting from Australia, there was also a seminar conducted by representatives of the Italian Chambers of Commerce and Industry (ICCI) in Australia that was prominently reported in the local media. As a result, a few of the prospective interviewees were expecting to meet delegates from the Australian ICCI. Only in one instance did the person then decline to participate in the interview, although they indicated that they would be better placed to do so at a later date. On one occasion, the participants did not allow the interview to be recorded, but they did agree to discuss the topic presented to them – and they did sign the Participant Consent Form.

While the initial list contained firms considered to be particularly innovative, this did not necessarily mean that we would find many/substantial innovation in the business model.

We have explained how potential informants were initially selected. The next sub-section details the conduct of interviews.

### 3.3 Conduct of interviews.

This subsection contains operational detail about the interviews.

The interviews have thus far been conducted in two rounds in June and November 2009, when one of the authors visited from Australia. That author also generally led the interviews during those visits. Two of the co-authors discussed the topic and the structure and content of interviews during those visits, as well as regular meetings over Skype. One of the co-authors acted as a sounding board and has become directly involved in the project. Further, one of the contributors to future outputs in the project was initially an 'expert interview' who is moving more fully into the running of the project as his contributions and knowledge of the project progress. All interviews were conducted by the authors. One author was present at all the interviews to date, though it is not intended that he should do so for all future interviews.

By the end of 2009, we had conducted nine company interviews, where on four occasions there were two informants participating. Every participant was male. Several of these firms had a connection with Australia, either currently exporting product or having done so in the past. At the time of submitting this paper to the AGSE 2010 Conference, two wineries were included on the wine list of some of Australia's top restaurants, as per the Gourmet Traveller's rankings. One of these restaurants has three stars and has won 'Restaurant of the year' in the Gourmet Traveller Restaurant Guide.

Interviews were conducted on company premises and usually were followed by a tour of the operations, hence contributing to our understanding of the firm and the particular informants. Occasionally, the interview was conducted during a tour, in which case we could ask either more general or probing questions based upon specific statements made. For example, if an instance of a successfully implemented change was described, we would ask: *'Was that typical of how you introduce changes into the business model'* or *'Did you have a similar experience on other/many occasions?'* Alternatively, when a general question was asked, such as *'Have you seen cases where an innovation was implemented differently from how it was initially mapped out, or it did not eventuate at all?'* a reply would be *'Well, I can show you this [other] section of the plant to answer your question'*.

Often, we did not have an opportunity to ask an opening question. That is because the respondents would simply start telling their story, as soon as they understood the scope of the study from our introductory remarks. On some of those occasions, we only asked some clarifying questions, striving not to interrupt the flow of information. As a result, the interviews have already displayed varying degrees of structure, but the required underlying information was nonetheless retrieved.

While Bhava (1994) found that by the 20<sup>th</sup> interview there was substantial repetition of detail, we found some regularity on one item from interview No 2, namely that these highly innovative firms or individuals found the local environment not to be conducive or supportive of such activities. As a result, we introduced a question that was asked whenever possible: *'How do you maintain the energy and enthusiasm for this continuous innovation?'*

In this section, we have outlined how the study has been conducted to date and next developments. In the next section, we present our early analysis of the first batch of interviews conducted in Apulia.

#### 4. PRELIMINARY ANALYSIS AND DISCUSSION

This section contains analysis of the interviews, and associated data collection, conducted during the course of 2009, mostly in November.

The experts we have interviewed reflected both the local frustrations due to the lack of a generally entrepreneurial business environment to develop the local economy and a pride in the outstanding achievements of those who have undertaken the path of innovation, based on perceived value by the purchaser/user (Kim and Mauborgne 1999).

While they were definitely knowledgeable of the firms and of the individuals driving innovation, the experts retained some stereotypes. For example, almost invariably they recommended against using the term 'business model' (or 'modello di business') that - they considered - would have been alien to the entrepreneur. Instead, we found that when it did come up, the term caused no difficulty at all. In fact, not only were the interviewees particularly energetic, innovative persons, they were also typically highly educated, interacted with other businesspeople internationally and spoke more than one language. Indeed, important inputs into their decision making processes came precisely from the interactions with like-minded persons at the forefront of their markets.

Some comments from the experts, that have found partial confirmation to date, relate to a lack of supporting infrastructure and culture to allow talented individuals to thrive locally, leading either to a brain drain to the northern regions of Italy or beyond, or to a mediocre general attitude to enterprise, hence underemployment of potential talent. *'Every time I started a new project people laughed at me'* or *'They said it couldn't be done'* were comments made by the CEOs of a producer/nursery and of a niche pasta maker. The feeling of frustration for young generations was confirmed at a broader level by an open letter published on 30 November 2009, from the General Manager & CEO of an Italian private university, urging graduates to leave the country in search of places where talent is rewarded, rather than connections or cronyism (Celli 2009).

While open innovation was never mentioned explicitly, there was often discussion of the need for collaboration across organisational boundaries, though it was difficult to achieve due to competitive considerations. This competition was not only in the marketplace, but, according to some, occurred in the local civil society where standing in the community might depend on perceived relative success.



Firms in our sample, however, have already been engaging in forms of open innovation, through their active participation in [DARE srl](#), a company set up to manage the agro-food technology cluster in Apulia. In particular, this intermediary was being used as a way to connect local firms and university researchers. The same respondent that brought to our attention the value they were gaining from having DARE established locally, rather than having to seek out researchers in other regions of Italy as they previously did, also displayed typical ‘lead user’ behaviour. This company, for example, had on several occasions gone to industry seeking machinery that would process higher value product in new ways, but had finally built it in-house. They claimed currently not to be able to satisfy demand in Europe by some large multinationals in their field. Another firm has set up a laboratory to invite researchers from other countries to visit.

Some emerging themes are presented here.

Continuous improvement. The General Manager of company F described a process of continually seeking new advantage and upgrading as that advantage was whittled away. Summarising, he said:

“Quality used to be our calling card. Then everybody got to ‘quality’. We moved closer to the consumer’s needs. Others got there, too, and our economic returns were falling. We needed to move out of market segments that were saturated, because the capabilities to satisfy them were generally available in European countries and other emerging markets.”

The entrepreneur who said he had been laughed at (Company V), also told us that his thought processes kept him looking one step ahead, in the knowledge that above normal returns are eventually competed away, or that market conditions can move in different directions turning a current advantage at one time into a disadvantage at another: “My family and staff eventually follow me, but it’s not always easy to change.”

Continuous engagement. One producer (Company C) highlighted the importance of continual discussion with buyers and consumers that they partly engage in via trade fair attendance, blogs, Facebook. A partner in Company M called it public relations, but he considered that it was one area where local companies fell down. In fact, this firm had only recently been set up as a break away from an older group, where – according to Company M – there was insufficient attention paid to marketing and public presentation of the firm and its products, due to old fashioned thinking by the principals.

Personal values and dreams. On several occasions, we found values such as pride in the local region and its tradition coming to the surface. A winemaker (Company T) sounded almost defiant as he said:

“Bulk product from this region goes elsewhere and comes back at a premium price, with other regions’ names on it. Why can’t we do it in our own name?”

Similarly, the President of Company CN said ‘Ci tengo alle mie origini’, that is ‘I’m proud of my origins’ and therefore he considered there was value to be offered by promoting those traditions.

The General Manager of Company F, who had commented on the changing consumer time constraints and noted that in Southern Italy it was still possible (mostly for women) to dedicate time to food and flavours in the family home, realised that it would become more difficult for future generations to do so.

“I would not want my son to have to eat low quality fast food in his adult years.”

And his company was delivering ways to obviate this incipient problem.

The owner of Company V told of how as a boy he dreamed of selling products abroad, and how he was thrilled when a friend called him from Vienna on one occasion to say that he found Company V produce for sale.

Internal capabilities and drive. The President of Company CN claimed to have done nothing innovative, but rather to have brought back old traditions using modern technology, leveraging his experience working in large multinationals. During our tour of the operations following the interview, when asked about the quality of local labour he stated that they were receptive to the need for high

quality and continuous improvement, “and if they’re not, we teach them.” Similarly, the executive from Company DS, who declined to be recorded, stated that his father – the CEO – was still the first in and last out and maintained a work rhythm difficult for others to follow.

The GM of Company F submitted this unsolicited analysis:

“If one co-operative is different it means there is something special inside it, because the territory is the same [ie soil, regulatory and market conditions]. Management is different and the investments made are different.”

How to maintain enthusiasm. When asked how they keep up the energy and enthusiasm for their work when the environment surrounding them was considered not conducive to entrepreneurial activity and business model innovation, the informants tended to repeat some of the points already made during the interview. They are effectively summarised in the points above. Several used the term “young”, but tempered it somewhat as they realised they were approaching their fifties or beyond. They were, however, reflecting on their relative mental vigour and inquisitive attitude. The respondent for Company C:

“There is so much for us [the partners] to do here that we can keep on going for along time before exhausting interesting, profitable projects.”

Effectuation. The question on effectuation mentioned above was presented to participants in written form. It is reproduced at Table 2. Informants were asked to indicate which quadrant best described their firm’s approach to confronting the future. It is the Italian translation by the authors of this paper of Figure 1 in Wiltbank et al (2006: 983) although the labels of each category used in the original were omitted.

<b>Table 2.</b> Question on effectuation shown to informants during interviews.										
<p><b>Qn. Ultima domanda.</b> Ora le mostrero’ una tabella con quattro descrizioni di come imprese possono impegnarsi ad affrontare il futuro. Quale di queste, secondo lei, meglio descrive la sua azienda? Per favour, scelga <u>una sola</u> opzione.</p> <p style="text-align: center;"><b>Come affrontare il futuro?</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 45%; text-align: center;">Posizionamento</th> <th style="width: 45%; text-align: center;">Costruzione</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center; vertical-align: middle;">Enfasi sulla previsione</td> <td style="padding: 5px;"><b>1.</b> Provare ancora di piu’ di fare previsioni e di posizionarci piu’ accuratamente.</td> <td style="padding: 5px;"><b>2.</b> Con persistenza mettere in pratica la nostra visione chiara di un futuro di valore.</td> </tr> <tr> <td style="padding: 5px;"><b>3.</b> Impegnarci ad adattarci piu’ velocemente ad un ambiente in rapido mutamento.</td> <td style="padding: 5px;"><b>4.</b> Trasformare attuali mezzi e risorse in mete co-create con altri soggetti, che si impegnano a costruire un futuro possibile.</td> </tr> </tbody> </table>				Posizionamento	Costruzione	Enfasi sulla previsione	<b>1.</b> Provare ancora di piu’ di fare previsioni e di posizionarci piu’ accuratamente.	<b>2.</b> Con persistenza mettere in pratica la nostra visione chiara di un futuro di valore.	<b>3.</b> Impegnarci ad adattarci piu’ velocemente ad un ambiente in rapido mutamento.	<b>4.</b> Trasformare attuali mezzi e risorse in mete co-create con altri soggetti, che si impegnano a costruire un futuro possibile.
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<p>* Typing error in Quadrant 3 was in the version shown to informants (‘mutatmento’ instead of ‘mutamento’)</p>										

The omission of labels in the four quadrants served to avoid directing respondents to a particular answer. In fact, one of them later turned the page where the original Table was reproduced in English and was pleased to know he was a Visionary. The four quadrants are: Planning (1); Visionary (2); Adaptive (3); Transformative (4).

The answers given to this question were usually in line with what the authors had expected given the tenor of the interview. On occasion, the informants gave what they considered to be their actual and ideal situations. Table 3 shows the answers provided by respondents.

<b>Table 3.</b> Answers to Question on effectuation				
Informant company	Actual situation	Ideal	Comment by Informant	Comment by interviewer
F	3	4	4 'sarebbe bello' would be nice	Really considered this to be a '4', certainly in mentality, if not entirely in practice
V	2		'I'm a Visionary – I knew it!'	Informant stated as biggest impediment to change the lack of cooperative spirit, suggesting an affinity with effectual thinking
CN	1 + 3			This informant had a long experience in a major multinational and was strong on systems.
AC	4		We believe in it, but it's difficult	Had continually referred to lack of resources as major impediment to change, but other sources suggested the company might lack the culture for innovation (ie possibly should not have been in this sample.)
M	3	4	3 more realistic, 4 is the ideal, though he thought they had elements of 4 already in place	The informant appeared to believe strongly in engaging in discussions, public debate and collaboration.
DS	1	4	4 is where they would like to be	Very much in a commodity sector with excess capacity, this firm had been attempting to break out via quality and collaborations; informant indicated this had not yet afforded premium prices, but better stability in orders.
C	4	3	3 reflects that the marketplace is a strong influencer of activity	Possibly the most successful Apulian firm in its sector, largely due to the matching of the previous generation of owners (local knowledge) and an expert from the UK.
Although nine companies were interviewed, on two occasions this Qn was not presented, because discussion about the other issues took up all the available time.				

This section has outlined our preliminary analysis on the initial interviews and associated data collection. The conclusion and implications of this study for future research are explicated next.

## 5. CONCLUSION AND IMPLICATIONS FOR FUTURE RESEARCH

In this paper we have presented preliminary findings from a study into business model adaptation in the agro-food sector in Apulia. The industry and geographic concentration affords relative homogeneity of environmental variables. In fact, the GM of Company F gave an analysis using the *ceteris paribus* approach for the local region. Another benefit of choosing the specific industry and geographic site is that it provides an extension of business model research beyond the typically high-technology intensive fields where it has been conducted thus far. This necessarily limits the extent to which it can be generalised. The research is field based, inductive rather deductive. Although it is relatively circumscribed, 'agro-food' does cover a variety of markets, including for example, milling and winemaking, hence the reduced heterogeneity of environmental influences is not absolute.

There is a success bias designed into this study. We are therefore less likely to find impediments to business model innovation than otherwise would be the case. Ideally, we would like to interview low innovation firms, but anticipate that it might be more difficult and resource intensive to gather data amenable to analysis via the methods detailed above. In subsequent rounds of research, the less innovative firms would fall within a broader survey for standard quantitative analysis. We fear, however, they might be more reluctant to volunteer information than the more proactive firms.

Future research will consist of continuing this study, with a similar qualitative study in an Australian region. The results will be collated into a survey instrument for quantitative analysis outside of the specific regions and industry, thus combining process and variance approaches (Van de Ven and Poole 2005).

The findings to date are preliminary. It is therefore likely that our future analysis will contain other elements to be tested and compared with other research.

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