

final report

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Survey – limiting factors in value adding

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Abstract

The project was undertaken primarily through qualitative research among value adding companies in the Australian food processing and manufacturing industries, particularly in the red meat further processing sector. The objective of the project was to identify the issues which impede the development of more value added red meat products, either for the retail or the foodservice markets; and to make recommendations as to how these obstacles might be overcome.

A total of 44 companies was contacted with data received from 39 companies. The companies comprised further processors and manufacturers; major supermarkets; retail and wholesale butchers; and makers of consumer branded foods. Products controlled by these companies reaches the end-customer through a range of distribution and market channels including retail, foodservice, route trade and export. The chief product categories covered in the survey comprise ground meat/toppings (including frozen and pre-cooked items); high-quality portion control products including pre-cooked lines; smallgoods; pies/snacks/filled products; and shelf-stable products including tinned meats and retort meals.

The survey tool comprised of a series of closed-ended and open-ended questions designed to elicit as much information as possible about the particular company's view on use of red meat and potential 'hand-brakes' and hindrances to its use in a wider range of value added red meat products. Interviews using the survey tool were conducted by telephone and in person, with a small number conducted online following a qualifying discussion. The survey tool addressed the issues raised in the project's original terms of reference and also sought information on other aspects of the topic deemed to be relevant.

The salient points emerging from this project are as follows:

- In general, value adders associated with the product types under discussion are a conservative group which often prefer to exhaust current capacity than undertake more capital investment for new product lines and associated packaging and other equipment.
- The major 'handbrakes' on increased use of red meat are often short-term i.e. associated with immediate capital costs, immediate market signals, immediate labour issues and immediate demands of existing business.
- There is strong competition and secretiveness the closer the business is to the retail consumer 'coal-face', especially for the branded and branded frozen foods group. Equally, at this point, red meat usage for these companies is currently low relative to other raw ingredients.

The chief reasons detected for failing to undertake more value adding can be summarised as:

Financial Operational Market signals and access Cost of entry Resources Bandwidth

The report makes a number of recommendations which could assist further processors and manufacturers to initiate the development of more value added products for the Australian and export markets. Among these are improved access to technical expertise and knowledge; a mentoring program; provision to industry of findings about ongoing consumer trends and demand signals. The report also identified many pro-active companies that show strong insight into the demands of the modern consumer and which are working towards a greater range of consumer friendly value added products.

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1 Introduction

MLA commissioned the project in 2007 to better understand the reasons for the relatively low number of value added red meat (VARM) products on the market in Australia. This includes products placed at:

Retail

- Chilled meat cabinet
- Frozen meals section
- Chilled prepared meals lines
- Dry grocery lines

Foodservice

- Chilled prepared products
- Other value added lines

Data suggests that value added meat sales represent a relatively small portion of total meat sales and transformed food products, indicating that there is considerable scope for expansion in this food area. Overall, Australian supermarkets offer significantly fewer value added or prepared products for sale compared to those on offer in European and US retail markets. Available data suggests that value added red meat products are a very small percentage of total red meat sales. For the retail sector, RetailWorld figures¹ are reproduced at Figure 1 to indicate the categories, volume and value for the largest use of red meat, exclusive of the fresh meat category:

CATEGORY	2007			
	Value (\$m)	Volume (m units)		
Frozen Dinners	325.7	7.21		
Gluten Free*	3.6	0.3		
Pizzas	125.6	27.4		
Savoury pastries, pies, pasties, rolls	196.5	30,000**		
Canned corned beef	16.9	7		
Canned meals, braises, etc	43.1	22		
Asian shelf stable meals^	137	80		
Asian frozen snacks^^	53	4.3		
*approx 20% of category estimated to be main meal **tonnes ^non-meat items ^^dim sims, spring rolls, curry puffs				

Figure 1 - Leading Retail Categories for VARM

In the chilled section of the supermarket, there is an increased number of product offerings but usually in raw state and traditional items like patties, marinated items and kebabs. Similarly products comprising of meat in the frozen foods section are usually frozen dinners, pies/pasties and frozen burgers. In the period 2001-2007, MLA published an annual ranking of Australia's top

¹ RetailWorld's Australasian Grocery Guide. 2008.

25 value adding companies. The definition of value adding used for the review and in subsequent tasks was as follows:

Value added product is defined as any type of red meat that has had other ingredients added to it (for example smallgoods and marinated products) or has been processed in such a way that it is no longer raw meat and which should result in increased market value (including cooked meats, shelf stable products, or highly trimmed portion control cuts).

This definition was used in conducting the project because it maintained consistency with previous research and covers a wide range of processes which could potentially transform red meat primals into value added consumer ready products. As with previous rankings, very basic value adding such as sausage making was excluded as value added product, although it is acknowledged that it represents a substantial proportion of red meat products consumed in the Australian marketplace.

The Top 25 Value Adders' ranking in 2006 estimated that approximately 250,000-300,000 MT of red meat (beef, veal, sheep meat and goat meat) is utilised annually by major value adders of which the largest 25 entities use around 210,000 MT.

2 Methodology

The project has been conducted by a survey of companies and analysis of the survey results, with the use of summary charts to indicate issues and challenges for red meat usage by the sector. A set of conclusions and recommendations is also presented at the end of the report.

2.1 Survey Pool

A total of 44 companies were contacted in the course of the project. Of these, 39 responded in full or in part to the survey/interview. Three companies declined to participate. Two companies were unable to make a representative available for the survey interview. For three companies, interviews were held with two individuals but their individual responses constitute one response for the purposes of this project. A small number of survey responses were collected through an online questionnaire which was then followed up with clarification questions by telephone where required.

The two major supermarket chains were included in the survey along with several retail butchers in various metropolitan areas because of the overlap of the issues relating to value adding. Two national brand companies with currently minimal or no involvement in red meat value adding were also included in the survey.

The companies contacted fell into the following categories:

- Those previously identified in the MLA Top 25 Value Adders' series as major users of red meat for further processing;
- Those just below the Top 25 threshold in the period 2001-2006;
- Companies producing a competing protein (e.g. poultry) or owners of significant retail food brands
- Pro-active retail butchers/wholesalers.

2.2 Classification of Companies

In order to ensure that a wide cross-section of value adding processes and companies was canvassed, the following product categories were devised. These categories were initially based on the results of the earlier value adding rankings:

- 1. Ground product including patty manufacture, pizza toppings;
- 2. High quality portion control products either raw or cooked;
- 3. Smallgoods including luncheon meats, preserved/fermented products etc;
- 4. Pies/snacks/filled products including pre-cooked chilled and frozen meals, ethnic foods; and
- 5. Shelf stable products including dried products, tinned meats/meals and other retort-based products.

It is recognised that within several of these categories there are products of higher and lower value.

As a checkpoint against the terms of reference for the project it can be concluded that all of these products would find usage in domestic, commercial and institutional settings.

2.3 Survey Respondents

The survey sought responses from senior company representatives at one of the following levels:

- Proprietor / MD / GM level
- Senior Executive, Product Development
- Senior Executive, Technical

In one case, the respondent carried the title of purchasing officer; however, this representative sits on the company's senior executive panel and has close involvement in all marketing, technical and product development activities.

2.4 Survey Tool

The chief method of seeking information from the companies identified was through personal and/or telephone interview.

The interview guide was intended to pose a range of closed-ended and open-ended questions to respondents. Because each respondent could potentially nominate a number of issues which impact on use of red meat, it was not feasible to offer a closed list from which to choose. This approach elicited a wide number of responses many of which may not have been anticipated or covered in a set of closed choices/descriptions.

The survey tool sought additional information to clarify:

- If red meat was used currently in production or had been used in the past (in most cases this was already known);
- The main product types produced (in most cases this was already known);
- The major market channel/s for the company's products; and
- The approximate volume of red meat used, although this was not considered critical to inclusion in the survey.

Additional questions were asked regarding product placement; technical specifications; product development and pre-commercialisation policies; and the challenges of bringing new products to the market.

The document developed to guide the personal/telephone interviews is located at Appendix A.

3 Sector Specifics

3.1 Current Value Added Products

The companies included in the survey produce a wide range of red meat and other products. Figure 2 comprises a list of the types of products available to the consumer at either retail or foodservice.

Raw	Smallgoods	Pre-cooked items	Snacks/entrees
rissoles	devon/bologna	prepared meal e.g. airline meal	cooked burgers, sausage rolls, pies, pasties
patties/burgers	salami	lasagnes, ravioli	Sausage rolls, pies, pasties
satay sticks/shasliks	strasbourg	frozen dinner	Dim sims, spring rolls, snack rolls
marinated sub-primals incl chops, racks, ribs	liverwurst	frozen pizza	meat-based snack rolls
ready-to-cook e.g. wellington, parmigiana	csabi	chilled pizza	ready-made sandwiches
crumbed/coated cuts and sub-primals	others	shelf-stable, pre-cooked stews, rib	S,
pickled/cured beef and lamb		cooked roasts in sauce or dry	
pizza toppings		trimmed portion control, cooked	
tumbled/formed products ind primals		• • • • • • • • • • • • • • • • • • • •	Dried products
infused/injected primals and roasts		Shelf stable items	jerky
		canned meats	biltong
		retort meal in soft pouch/rigid tra	ay other dried

Figure 2 – Value Added Products Available

3.2 Market Channels

Market channels describe the distribution points at which products reach the consumer. The products themselves may have been processed or sold by other end-users in the intervening period. While some value adding companies are dedicated to one specific channel, many others prepare products for a range of market channels. Typically, red meat will be only one of the many raw ingredients the company must purchase and process.

There are several groups including AC Nielsen and RetailWorld which track product sales through retail outlets. BIS Shrapnel publishes a comprehensive guide to the Australian foodservice sector which assists in monitor the changing 'tide level' in sales between the two areas. A schematic for the two sectors and estimated number of outlets is shown at Figure 3.

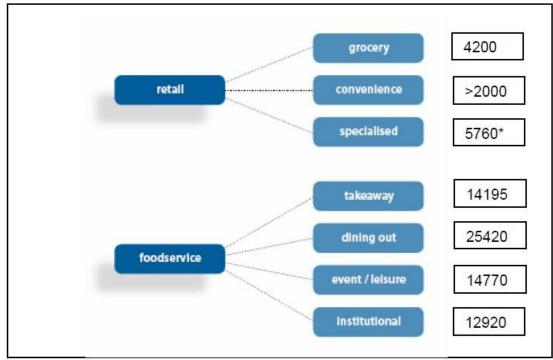


Figure 3 – Major Food Sector Channels & Estimated Numbers

The data at Figure 4 indicates the major market channel for each company contacted in the survey. It should be noted that many companies might sell to more than one market channel.

MAJOR CHANNEL FOR PRODUCTS	No. contacted in survey
Major retailers (Woolworths, Franklins, IGA)	9
Meal components for other manufacturers	4
Quick-serve Restaurants/Fast food chains	4
Retail incl second tier supermarkets	4
Commercial foodservice incl restaurants, cafes, pubs, clubs	10
Institutional foodservice including airport, military, prisons, hospitals, nursing home	8
Niche markets e.g. Organics/other	
Supermarkets & brands not using red meat	4
TOTAL	44

Figure 4 - Ma	jor Market Chan	nels for Selected	1 Companies

Source: DAFF Food-map 2007 incl delicatessens & butchers

4 Interpretation of Survey Results

Once each interview was concluded, the responses were analysed and assessed. The company was classified by its major product type (see section 3.2 above) and was positioned on a quadrant chart where "interest" in overcoming obstacles and "understanding" of these obstacles are the respective *x* and *y* axes. The overarching objective of MLA activity in the value adding area is to move more companies into the "high interest/high understanding" quadrant (quadrant 2) in the expectation that more value added red meat products will result.

The x ("VARM Interest Positioning") axis indicates how active or interested a company has been in exploring new or wider value adding opportunities, whether or not it is a current red meat user. This has important consequences for strategies that might be adopted to encourage them further into the value added marketplace. The y axis indicates the firm's level of understanding of the issues which are holding it back from further involvement in the value adding area.

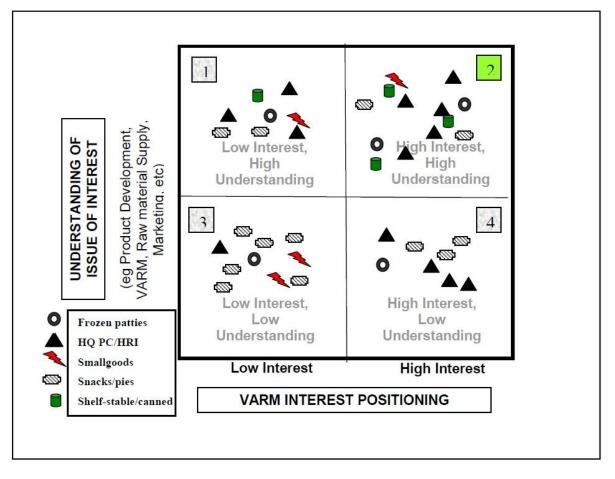


Figure 5 - Positioning Chart for Value Adding Companies

As is apparent from Figure 5, each of the five product categories is distributed fairly evenly among the four quadrants. The survey brought to light several reasons why this may be difficult to change i.e. why many companies are likely to remain in quadrants 1, 3 and 4 in the absence of developments in other areas.

4.1 Understanding the Quadrants

It was clear from the survey interviews, for example, that around 50% of the companies indicated in quadrant 1 are cognisant of the barriers to further value adding and are disinclined to overcome them. Including a mid-sized smallgoods maker and two larger companies making pies and snacks, these companies view themselves as servicing an existing, reliable market that is unlikely to recede in the foreseeable future. The companies' machines are run at or near capacity, they are able to overcome seasonal variations in demand by careful use of labour arrangements, some sub-contracting and management of inventories. For these companies, there is little or no perceived advantage in developing new products or re-tooling existing machinery for new products that their current, long-term customers do not presently require. When these value adders looked beyond the immediate needs of their customers, to the consumer, they concluded that there is unlikely to be any significant shift away from these two traditional product lines which are their core business. They have deliberately adopted the 'stick to my knitting' stance.

A further two respondents in quadrant 1 expressed satisfaction with the current level of the companies' value adding operations. They reasoned that to go to the next level would likely entail selling into the retail area which they found extremely unattractive because of negative perceptions about supermarkets' treatment of suppliers. Their stance can be summarised thus:

All this talk about value adding really mostly amounts to just cost adding. What's so fantastic out there that hasn't been done before?

Quadrant 1 Status Quo/Core Business -"Stick to my knitting" -"Customers are always going to want to buy pies/salamis/pizzas" -"I don't want to get burned by the supermarkets" -Often risk-averse	Quadrant 2 Actively seek opportunities -Well informed about marketing issues -Keen to identify and develop new product choices -Well-developed sensory evaluation and pre- commercialisation programs -Mostly undaunted by challenging environment
Quadrant 3-Set & Forget -VARM is often not core business to this group -High volume; divulge little about business -New initiatives often limited to new packaging or minor modifications -"This business can almost run itself" -Arguably quadrant withstrong potential if approached correctly	Quadrant 4-Hungry -Often newer entrants, 'start-ups' -Hungry for feedback from all sides -Overwhelmed by regulation and compliance requirements -Potential candidates for mentoring

Figure 6 – Typical Characteristics of the Value Adding Quadrants

Quadrant 2, by contrast, was populated by companies exhibiting high interest in developing new products and a better understanding about what is stopping them from creating and marketing more value added products. This, it was recognised, could go some way towards overcoming these hurdles. Approximately 75% of these companies employ a very disciplined approach to new product development from concept, through test marketing to pre-commercialisation and

eventual rollout, if all indications are favourable. The systems they employ also help them to pinpoint likely market failures early enough in the cycle to either change course or abandon the project altogether.

The companies populating Quadrant 3 indicate low interest in developing new products. As distinct from Quadrant 1, however, these companies are characterised by a low level of understanding about market demand, product development processes which might improve chances of success, and the adoption of a very reactive stance to requests for new products. There is a large number of pie/snack manufacturers in this quadrant, several of which are owned by major consumer brands that have other strings to their bow. Given that there is understood to be little growth in this market category (RetailWorld 2007 and 2008) it is surprising that there are a relatively large number of companies which evince little interest in putting together new offerings or curiosity as to what could hold their progress back. Yet, because of the relative size of these companies, the power of some of the brands and the high volume of finished product sold, this group could hold great potential. The following comment came from a well-established company that has effectively decided to re-act in line with developments further down the supply chain, and to adopt a less aggressive approach to product development.

We are reactive to customer requirements in that they ask for a meal (e.g. lamb stew) and we use our R&D team to research suitable lamb cuts (incl. carcase specs - i.e. lamb is what I pay for so I expect to receive lamb) & other meal component develop the full meal, cost it and present the outcome. We have tried being proactive and it is generally not worth our while.

<u>Quadrant 4</u> incorporates companies/individuals that are highly motivated to get new business models into operation and which are willing to work persistently to take a product to the market, particularly when the market is the next stage in the institutional or commercial foodservice value chain .e.g. customer with which they are trying to establish an ongoing relationship or alliance. Very often these are new establishments where the management team are wearing several 'hats' (purchasing, hiring, developing products, selling, promoting). This may partly explain why the understanding of impediments to value adding is relatively poor: a combination of time and resource shortage, an intense focus on the next product despatch and similar factors. It is interesting to note that several of the companies represented in this quadrant are performing portion control, prepared roasts/meals etc which tend to be more labour intensive, require more expensive packaging and/or processing equipment.

5 Major Hurdles

The interviews held with the respondents yielded a great deal of valuable information as well as several interesting insights into the intricacies of this sector of the supply chain. A few of the issues raised by respondents were in the same category of general complaints which might be anticipated in a survey of any industry, but for the most part the participants gave considered and plausible answers to the factors that influence their value adding and their companies' direction in this regard. A wide range of responses was received which have been summarised in Figure 7 under three key headings. Also indicated in Figure 7 is the potential level of involvement by MLA in attempting to address some of these factors. Overall the feedback from respondents was neutral to positive, with all but one company confirming their intention to remain in the further processing sector

ISSUE	% OF RESPONDENTS	POSSIBLE FOR MLA TO ASSIST?
Financial		
Cash Flow	30%	No
Cost of equipment/machinery	25%	Possibly
Poor Margins/Return	50%	Unlikely
Supermarket shelf costs	23%	Unlikely
Cost of sensory evaluation	32%	Yes
Cost of market research	40%	Yes
Cost of compliance programs	21%	No
Cost of raw materials	18%	No
Resources		
Insufficient labour	10%	Unlikely
At or near full capacity	9%	Unlikely
No access to R & D funds	19%	Yes
Packaging Issues	23%	Yes
No space at site	5%	Yes
Little or no 'bandwidth'	35%	No
Low consumer testing	33%	Yes
Fear of IP theft	32%	Yes
Market-related		
Size of domestic market	70%	No
Dominance of 2 supermarkets	42%	Unlikely
Perception product isnt versatile	27%	Yes
Market not ready for more products	40%	Yes
Market's mistrust of modified items	40%	Yes
No market(s) identified	18%	Yes
Inconsistent product specification	31%	Yes
Poor previous experience	15%	No
Poor market knowledge	20%	Yes

Figure 7 – Major Limiting	Factors (%)	among	Respondents and
Capacity to Assist)			

5.1 Some Structural Considerations

These observations did not proceed directly from the interview and survey process but are considered to be contributing factors to the relative absence of big value adding operations in the Australian meat processing sector. It is interesting to note that the new management of JBS Friboi (assets formerly owned by AMH) has signalled its intent to focus on value adding and to start to transform some of its several sites into value adding and further processed centres. The rest of industry will likely watch this with interest as historically there have been factors which may have held back value adding at the abattoir and boning room level.

If one were to exclude vacuum packaging and chilled beef shipments as value adding, it has had limited success so far in the industry. Much of this is actually driven by the need for abattoirs, boning rooms and processing facilities to maximize throughput i.e. maximizing the kill or slaughter number per hour and hours per day. The design capacity of abattoirs means that all efforts and planning have been directed towards maximizing slaughter in head per day rather than in kilograms of finished product. The finished weight concept is only now beginning to take hold. Part of this may be attributable to the development of new workplace arrangements (including contractors, workplace agreements, employer - worker negotiations). Up till now, though, value adding at abattoir level has effectively been penalised or unfairly costed, in contrast to the poultry industry where production and processing are far more integrated. Arguably poultry processing also lends itself to value adding due to consistent bird size and weight, market forces and industry forces (fewer processors) and supermarket / consumer demand.

Hamburger manufacture is still the most successful and far-reaching value adding operation connected with the red meat industry (likely to be in the US, also). Large quick service restaurant chains and their supply chain partners (pattie manufacturers) have perfected a consistent formula for making frozen beef patties on a significant global scale. However, these pattie plants are stand alone facilities where frozen or fresh/chilled beef is sourced either in large "combo" bins holding approximately 1000 kgs or in frozen cartoned form of 27.2 kilos of boneless beef.

5.2 Market Size and Conservative Outlook

The single largest limiting factor identified by respondents in the survey was the size of the domestic market, i.e. most feel it is currently difficult to justify heavy expenditure on new production and packaging lines when the local market is still relatively small. The economic turbulence since March 2008 (interest rate increases, outlook for fuel prices, cost of groceries and impact on disposable income) has only served to exacerbate concerns that the market won't pay for extras. In addition to the concern about the size of the market was the perception that the Australian consumer is wary of new preparation styles (cooked meats in the refrigerated cabinet) and packaging technologies (shelf stable meals that will taste good) in regard to their red meat intake. One Victorian manufacturer stated:

I just don't think that consumers want to buy that when they can cook it at home...they're not going to toss out their oven and eat out of a box...

There is agreement that the consumer is becoming more time-poor and seeking quick meal solutions: that the foodservice sector will continue to grow in number of outlets and volume of product. But many of the respondents questioned the willingness of consumers to radically alter their grocery shopping patterns to include, for example, pre-cooked items other than in lasagnes and filled pasta and pastry products. The sentiment was very much that there will be change at the margin and that consumers' inbuilt caution will prevent any wholesale change in the next

period to the type of pre-cooked product range which is found in UK and other European supermarkets and food providores. One processor spoke of "catching the wave" but not getting dumped by unnecessarily high investment levels.

There was found to be a very limited number of cooked products, for example, in the retail marketplace that mimic the wide range of chilled offerings in the UK. The current "Quick and Easy" range in Coles supermarkets comprises cooked items in sauces which are prepared in Melbourne by an extremely experienced value adder, however, the advice received is that the program may not be continued. That supplier is understood to be in negotiations with the chain about more product lines for the future. For the supermarkets' part, both major chains report they have difficulty finding reliable supply and pricing for this type of more sophisticated product which impedes their ability to build a product category beyond its infancy.

[The local market] is not the size of London's or Europe's...we can't support that style of offerings yet and no one wants to be the first one to shell out for it.

Aligned with this concern about the size of the market are some reservations about the current capacity of the local market to accept more sophisticated or novel offerings. There is no clear agreement, either, on whether Australian consumers will follow European counterparts and opt for more pre-prepared meals.

Often the main driver to product development and innovation is market demand. It is preferable that markets are in hand before product development is refined. It is far more difficult to create a market for a product than to satisfy a need or at least a perceived need for a new meat product. Market demand may be in the form of supermarkets requiring a consistent quality and packaged product, a chain restaurant requiring a new item in their menu range for customers, packaging solutions being presented or improved methods of product refrigeration or shipping/transport.

5.3 Cost of Raw Materials

Both for the commodity end and the upper portion of the value adding sector, high raw material prices are currently worrying processors and manufacturers. One canner which exports a high percentage of total purchased in value added form stated:

This industry needs to decide if it wants to be global or be protected. It can't have both. If the tariff there [in the company's major export market] moves again, all my product will come straight from Brazil, not just 15%. No more kid gloves, their {Australian domestic trimmings and mx packs} product is too expensive and they ought to wake up to it.

Such statements are probably commonplace at several points on the value chain, but there is a perception among many manufacturers that it is very hard to recover any profit from value adding when the raw material costs keep escalating. In turn they cannot go back to their customers seeking another price increase (foodservice suppliers try to limit this to twice-yearly and are currently being squeezed by persistent increases in grain, flour and produce costs). On occasion some manufacturers will be offered product that is slightly "out of spec" from their normal purchase and will have to decide whether to pursue this option.

5.4 Dominance of the Supermarkets

This is an interesting factor which was nominated by many highly experienced food processors. The recognise that the retail sector offers the prospect of volume sales but are very nervous about undertaking any substantial investment to chase this market for fear of falling out of favour and having no recourse to the other group. The alternative is to develop business in the foodservice sector which can potentially lead to a more fractionated business model, more accounts to handle, different packaging requirements and overall more variables to manage.

In contrast, a frozen food supplier with a recognised national brand stated:

We don't do foodservice [accounts]...that may be risky but we keep all our business with the big guys [Coles, IGA and Woolworths]. I think we keep with the strength that way and provided we behave ourselves we'll always have a market...

As stated earlier, a number of very competent companies in Quadrant 1 have a high understanding of the risk factors in value adding and with those experiences in mind have no interest in expanding their offerings to the retail consumer but will stay with foodservice contacts and respond to their requests as best they can.

A related factor was the sensitive issue of supermarket shelf costs. This was not an area that was fully discussed in the survey interviews as manufacturers are generally reluctant to divulge the level or structure of these fees. Those who do not currently supply to supermarkets are also aware of these charges and use it as another justification for staying clear of the retail sector. A remark from one respondent:

Cost of entry (to succeed) in supermarket placements is high, in store placement is very much dependant on a well coordinated end to end supply chain and sales management.

5.5 Costs of Compliance

This was a relatively low order priority. In order to participate in the food processing sector companies have to meet more compliance and audit requirements. Aside from state/federal food safety and inspection requirements, processors' customers may require their premises to provide evidence of a third party audit of their HACCP, OHS and QA programs. The programs are seen both as a necessary evil and as a chance to assure their customer, that systems in the plant are properly controlled and monitored. Additional costs of compliance will likely not deter a manufacturer from undertaking new or more complex value adding activities (introducing an IQF line for example) but is an example of another constraint because a new set of procedures and protocols will need to be produced and presented for the next audit or compliance check.

I know I have to do it to keep everyone happy but it takes me away from all the other things I need to do, and I have to check that the job's done properly before they get here...[talking about meeting compliance obligations for his QSR customer).

5.6 Lack of capacity/floor space

Some manufacturers claimed to be in the fortunate position of having full capacity on their production lines and a shortage of floor space for new equipment. All of these same companies are prominent in production of frozen snacks and pies, foresee no significant growth potential for their business but instead put their efforts into shoring up their current position and seeking sideways category growth. The reputation of being able to 'hold one's own' in the marketplace is strong among this group of processors. This is a quote from such a company:

I simply haven't got the bandwidth-I keep my existing customers needs at the top of the queue, I really don't want to get involved in what-ifs for new products when they've buy the same three lines for the past nine years...

5.7 Lack of 'bandwidth'

This was an underlying issue particularly among the smaller operators in Quadrant 3 and 4. The demands on their time are currently perceived to be very high in terms of financial, market knowledge, labour and HR issues and operational matters. A small number of company spokesmen confessed to deferring or ignoring some of the 'broadbrush' issues about forecasting demand and gradual shifts in the makeup of the manufacturing sector in favour of involvement in the things they can change. At extremes, this sometimes means passing up orders or foodservice operators' requests for a new product style, because existing demands on time are already very high.

I simply haven't got the bandwidth-I keep my existing customers needs at the top of the queue, I really don't want to get involved in what-ifs for new products when they've [bought] the same seven product lines for the past nine years...

5.8 Inconsistent product specification

This issue has been included because, while it is not a high order of priority for many manufacturers, it underscores the crucial importance of agreement between packer and manufacturer as to what comes out of the carton or pallecon. The packer in question makes a high value meat pie for institutional use and production was being disrupted by the need to alter the product batching due to CL readings from the carton (core samples) being at odds with those made in the plant using thaw and mince process. The variation was sometimes up to 5CL points. To resolve this, the company purchased the same core drill sample technology as their preferred suppliers use. They greatly resented having to do this but felt there was little alternative. It had taken almost two years to get agreement with a national health authority to endorse this product and sell it into the foodservice sector and this was achievement was being compromised by a chemical lean measurement protocol. To quote:

We had to get that equipment, you see, to test that our measurements and the suppliers were the same. With that new product line that goes into schools...we just can't afford to wake up tomorrow with our name in the papers because the CL was wrong. And from another snack maker who ranks in the lower half of the Top 25 value adders:

I don't want to turn us into a testing lab for every batch but now I've got more [information, data] to back up any problems I have with the packer.

It is recognised that there will inevitably be issues with product descriptions between stages of the value chain but equally the uncertainties can be frustrating and expensive for a value adder undertaking a new product launch.

This comment came from a representative of a mid-sized company who has a wide range of products going into the institutional market. He feels disadvantaged by the size of the operation yet it is a very progressive company with has had a lot of success with its new product developments:

The big guys [are] not very interested in anything not standard, smaller guys don't have the volume so they don't meet the spec. with all products.

As a result I have to use extra labour to check every part of a delivery to make sure it meets my spec, so I will be able to manufacture and deliver to my customers spec – as a result any labour cost increases to make these checks and I can't pass on this additional cost to my customers so I have to absorb it.

5.9 Research and Development Issues

It was apparent from the responses to the surveys and interviews that these companies have dedicated R and D areas and that retaining these staff is a high priority. This is a welcome development and probably in contrast to the situation even ten years previously. There is now more of a commitment on the part of companies to keeping these areas funded in order to keep the ideas and improvements flowing.

In some areas, though, and particularly further back in the supply chain at abattoir and boning room level, where margins and research resources are likely a little thinner, R&D is often done by commercial firms such as packaging companies and energy companies developing and patenting inventions and new discoveries for the industry and tying access to the innovative packaging to long term contracts for both machinery and packaging materials. While this has certainly helped the industry the innovations are by their very nature generic and are not necessarily suited to the scale and particular conditions at various size abattoir and processing plants.

The PIP programs have probably helped to address this at many sites. However, there is still a need for "champions" at management level in plants and lack of imperative to innovate due to insufficient time and profits and management and staff are fully stretched managing day to day business and throughput. There has also been limited access to technical and management education for plant personnel and management. There are still only a modest number of further educational institutions offering training in meat processing and value adding (including the University of Victoria meat diploma) with related impact on the level of skills and programs to drive innovation, R&D and commercialization. Another R&D issue is inability of firms to easily access highly trained staff, staff shortages in general and lack of pilot plant space.

In relation to trained staff, meat plants often lack the finance and career planning path to attract highly trained staff. They tend to make production supervisors responsible for pilot trials and those personnel are have insufficient time and incentive to develop new projects and products.

Within the confines of the operation, staff shortages sometimes mean that insufficient people are made available to value adding pilot trials and are often rotated away from the pilot plant to assist staff shortages in other areas of the plant. Similarly, meat inspection and QA staff may not always be supportive of the new business facilitation efforts. On occasions these groups may be suspicious of new product development and may impede the sensible relaxation of processing programs to facilitate change and innovation. Strong, well resourced supervisors with supportive management is needed to drive change and innovation in the face of this obstacle.

5.10 Financial Issues and Costs of Product Development

Like some abattoirs, some value adders are simply undercapitalized which means that funds are rarely available for product development unless a major chain store or food service client demands new products. Processors then sometimes feel locked-in and may not proceed with concluding a supply agreement.

Approaches that are known to be successful include collaboration between participants in the supply chain for example, a quick service restaurant chain, a meat processor and an abattoir supplying raw beef ingredients. Alternatively a number of processors can collaborate to collect raw meat product and send to a central processor for preparation. Sometimes this is best facilitated by an external consultant or meat buyer.

A detailed costing, a business plan and a timeline with milestones needs to be established to ensure project pilot plant and eventual commercial success. Australian banks and businesses financiers are often reluctant to invest in the meat industry and usually "patient capital" is required from a long term investor with a vision. In certain cases, dollar for dollar funding is also helpful with R&D support from industry bodies, government and research facilitators.

Surprisingly, though, there were fewer obstacles identified in this area than might have been anticipated. It was acknowledged that the development and launch of a new product or range of products is taxing and expensive, although the companies at the higher end of the 'interest' and 'understanding' quadrants accept this as a cost of doing business. A small number of start-ups in Quadrant 4 found the process very difficult and felt the financial cost of extra labour, equipment, pilot projects etc very keenly. To this factor there is no easy answer; however, the ancillary costs of recruiting and securing sensory evaluation assistance, experienced R and D services and meaningful market research reports were also cited as discouraging to the cause. It is suggested that this is an area in which MLA might conceivably be able to encourage more value adding and this is expanded upon in the final section of the report. This is an example of some of the thinking:

Costs are the main problems. Costs for development of products and machinery required to firstly process economically and also to keep up with the ever changing food regulations which are more technical and costly than ever to upkeep.

5.11 Fear of IP Theft

There was certainly a detectable undercurrent that a really good idea is hard to keep quiet. It is considered that the further processing sector is likely far more secretive than the preceding stages of the value chain. Owners of consumer brands in the survey in particular were very guarded in their comments. For those located in the toll manufacturing and house brand production area, two proprietors intimated that they had an excellent idea for a new product but were uncertain as to whether they could develop it without their clients finding out and wanting a share of the product revenue. These are isolated cases and normally manufacturers would not be reticent about exerting rights to their own ideas. But equally there was hesitation about seeking R and D funds or industry assistance from national, state or industry bodies due to a fear that commercial confidentiality would not be expected and that every other player in the area would hear about their product concept and beat them either to market or to development funds.

Following on from the previous issue identified (costs of product development), the following statement is particularly pertinent:

Well, what I could use is this – some help in organizing taste tests and [similar tasks] but I have to know that whoever comes along is not going to take all my work to the NEXT bloke and sell it to them. That's happened before to me, two weeks before market and I have never forgotten it.

5.12 Search for Appropriate Packaging

Many of the surveys inevitably led to the issue of packaging which is becoming an increasingly complex area, particularly for smaller value adders. A major retailer but smaller value adder made the following statement which seems to embody the frustration felt by many others in this position:

The current freezer bag packaging is not suitable, we have been looking for better packaging methods & asking for assistance in this area for 10 years, there needs to be a better way of packaging meat to be frozen & better identification of products

It is acknowledged that freezing red meat is not a value added product, however, the comment really strikes at the issue of consumer perception and whether new product offerings will integrate with the consumer's need to stabilize the purchase in the freezer for later consumption. This retailer is stating that without appropriate packaging, his enterprise's value adding efforts are marginalized.

General experience indicates packaging companies are a very good source of ideas and assistance with new product development. If the packaging company is a global or multinational company, they often do significant R&D in the own right and register trademarks and patents. They are willing to often assistance with machinery, test films, trays and related materials and support to test their materials in various pilot plant operations. One difficulty is that if a larger processor or competitor to the innovator receives information about the technology or product development it will be offered to them on a paying basis and may be lost to the original innovative company or individuals. Appropriate safeguards and agreements need to be put in place to avoid this situation and that will require significant investment by the original innovative

firm. Legal and patent rights should be sought immediately to protect initial investment and intellectual property.

5.13 Commercialization Issues

The feedback from respondents suggested that this is the key point when a great deal of innovation and value adding work potentially breaks down. Usually this is due to insufficient funds but just as often it is due to lack of market and supply chain arrangements and contracts.

Lack of pilot plant space and inflexible working conditions, breaks and interference by some supervisors frustrates pilot plant project development. Often small cramped spaces are allocated and then reallocated as sales programs change. Supervisors then go to another area of the plant and individual workers lack sufficient guidance. Communications are rather piecemeal and often pilot plant workers are not briefed, have written instructions, put forward poorly specified raw material for processing and then leave perishable products out without labelling or do not have a strong "cold chain" mentality.

The whole supply chain must be carefully worked out and agreements obtained for each step in the chain. One of the greatest dangers can be a failure in the cold chain in value added meats. Technical trials including temperature logging and transport and logistics trials need to be coordinated with best advice sought and plans rechecked and tested in greater size pilot shipment lots both by airfreight and sea freight. In most of these areas MLA could be in a position to assist.

Appropriate castings, margins and investment capital interest costs may need to be factored in and a cooperative "open book" arrangement agreed between customers and supply chain partners so that each party understands the costs to the other participants in the supply chain and no one party feels it is carrying the costs and risking its return. Adversarial arrangements where retailers or end-users demand traditional margins for new business and the 'risk' of trialling innovative products can lead to collapse of the new product price structure and longevity of the new product development business and marketing action plan.

6 Case Studies

The following case studies have been developed from the perspective of export products and are presented here to provide some illustrations as to the factors that value adders and product developers must consider in bringing their product to market.

6.1 Converting lower valued beef loin cuts for foodservice

With increasing demand for consistency and portion size for banquets and events, chefs and foodservice managers are demanding consistent portion size. Certain lower valued cow loin primal can be value added by relatively simple preparations and pre cooking.

In this case, a cow or beef 0.9-1.3 kg tenderloin can be processed so as to produce a consistent portion diameter and portion size and pre-cooked for use as a banquet fillet steak. An additional value adding step is to add an extending food ingredient solution in a tumbler to add weight to the primal.

If both steps are followed, the lighter primal is increased in weight and the conical shape of the tenderloin is changed to an even cylindrical shape. Once the tumbled tenderloin primal is prepared, the whole primal is fitted in a tight plastic bag. Because it is wet and has been tumbled, the bag can be twisted at both ends in a "loll wrap" style so that an even primal is created. A "cook in" bag is used in the process so that the tenderloin primal can be pre-cooked in a small goods/smoking oven to provide for a very rare primal. The evenness of the pre-cooked cylindrical shape primal, which is frozen, is then suited to slicing for consistent size portions for char grilling in a few minutes for a large banquet.

Thus added weight, consistent primal size and pre-cooking to very rare are all value added processes to what was previously a lower value cut of beef. There is a large potential market for this product in wedding banquets and events in both Korea and Japan.

6.2 Trimmed and prepared beef short ribs Korean style

This is a process to pre-trim and prepare and pack the Korean beef short rib so that it is case ready for presentation in supermarket shelves or to foodservice clients. With the Korean market consuming large quantities of beef short ribs, this is a simple means of value adding the primal and generating increased returns to Australian processors over and above a commodity price currently paid for the product. The packed short ribs show ideal Korean style presentation and may in fact open new markets in convenience stores or "Costco" type wholesale stores for Australian beef. Images are presented to assist explanation of this value adding case. It has been derived from a trade enquiry for the product from a Korean importer/distributor.



Figure 8 - Beef short ribs cut ready for trimming

The beef short ribs are obtained from well marbled beef, probably carcases which are 260 kegs plus and marble score 2+. Higher marble score will ensure high value market entry and higher prices.

Once the short rib is cut and trimmed it is peeled to open it out into flat shape, with bone, fat and meat showing in an even surface across the trimmed primal piece. The product is sold as "Galba" in Korea and is a Korean favourite for barbeque. Korea has standardized tray sizes and depths for the product and cartons would need to be specially made to fit the trays, probably with thin cardboard layer sheets between trays. Product would be frozen. The Galba is packed upright as tightly as possible to facilitate maximum weight per tray and per carton to minimize freight cost per unit.

When the bone in short rib is cut and trimmed and the Galba portion prepared, the bone in rib pieces left over are packed upright tightly in trays for freezing. This ensures that the maximum yield is derived from the initial bone in short rib primal.



Figure 9 -Short rib cut and trimmed to thin bone in strips and peeled to a flat shape

Figure 10 -Unrolled Galba on left and rolled Galba on right in trays





Figure 11 -Korean barbeque beef Galba

6.2.1 Issues identified with value adding beef short rib

Most Australian meatworks are established as high volume, low value added facilities. Very few have developed complementary value added processing rooms adjoining the meatworks. The ideal scenario is for this to occur so that relatively simple value adding similar to above Galba example can be a supplementary business for the plant.

Another issue identified is lack of skilled butchers being trained in plants. This is a function of labour shortages in general and high penalty rates being paid for skilled level in relation to butchering. Most abattoirs have trained boners and slicers but they do not necessarily have more sophisticated butchering and knife skills.

It has already been established that manufacturers need to have more flexibility in relation to carton sizes, volumes etc so that trays can be packed inside cartons. Usually cartons are standardised and small runs are high cost. It would be ideal if carton manufacturers promoted more value adding in their carton pricing models.

7 Appendix – Survey and Interview Protocol

[This document formed the basis for the survey and interview program stage of the project. Several of the questions are open-ended i.e. they allowed the concept, reference or example raised by the respondent to be further explored, either over the telephone or in person. In many instances the more valuable data came to light during the extended interview stage.]

Screen 1: Introduction

MLA wants to find out what some of the roadblocks are for using red meat in value adding.

Firstly I would like to ask you some questions about your business background

Q3 (Location): (you can select more than one option)

Can you please indicate where your main business premises are located? (you may select as many as apply)

- □ ACT (1)
- □ Adelaide (2)
- □ Brisbane (3)
- □ Country NSW (4)
- □ Country Queensland (5)
- □ Country South Australia (6)
- □ Country Victoria (7)
- □ Country West Australia (8)
- □ Darwin (9)
- □ Hobart (10)
- □ Melbourne (11)
- □ Northern Territory (12)
- □ Perth (13)
- □ Sydney (14)
- □ Tasmania (15)

Screen 1: Orientation

I would now like to ask a few questions to help me understand your businesses orientation.

Q5 (Major Market Channel) : (you can select more than one option)

Please can you select the major market channel for your business?

- □ Supermarkets (1)
- □ Meal components for prepared food manufacturers (2)
- □ Fast food chains (3)
- □ Retail chains non major 4 supermarkets (4)
- \square Restaurant/foodservice (5)
- \Box Airport foodservice (6)
- □ Military food provisions (7)
- □ Institutions such as Prisons/Hospitals (8)
- □ Gourmet food markets, such as Organics (9)
- \Box Other (specify) (10)

Q7 (Major Product types) :

(you can select more than one option)

Please, can you specify the major product types your company produces?

- □ Steaks (1)
- □ Roasts (2)
- □ Frozen mince (3)
- \square Prepared meals (4)
- □ Manufactured products (Burgers, Mince) (5)
- □ Value-added beef (specify) (6)
- □ Value-added lamb (specify) (7)

Q9 (Specify meat used) : Please specify the meat types you use:

(you can select more than one option)

- □ Beef (1)
- □ Chicken (2)
- □ Lamb (3)
- □ Pork (4)
- □ Game (5)

Q10 (Chilled/Frozen) :

Would you say the majority of your food products are?

- o Chilled (1)
- o Frozen (2)

o Sous vide (3)

o MAP (4)

Screen 2: History of Red Meat Usage

Your answers provided mean that your business is not currently producing Value Added Red Meat products.

Q11 (Previous use of Red meat) :

Can you tell me if your business has produced Red Meat value added products in the past?

o Yes (1)

o No (2)

Screen 3: RM in Past

Your responses show your company has produced Value Added Red Meat products in the past.

I would now like to ask you a few questions to understand why this product range ceased.

Screen 4: RM Consider

Q14 (Would Consider adding):

Your answers reflect that your company does not currently produce a range of Value Added Red Meat products.

Can you please tell me if you are or would be in the future, considering creating a range of Value Added Red Meat products?

o Yes (1)

o No (2)

Screen 5: RM Considering

Q15 (Would Consider adding):

Your answers reflect that your company does not currently produce a range of Value Added Red Meat products.

Can you please tell me if you are or would be in the future, considering creating a range of Value Added Red Meat products?

o Yes (1)

o No (2)

Q18 (Major Market Channel) :

(you can select more than one option)

Please can you select the major market channel these products would be targeting?

- □ Supermarkets (1)
- □ Meal components for prepared food manufacturers (2)
- □ Fast food chains (3)

- □ Retail chains non major 4 supermarkets (4)
- □ Restaurant/foodservice (5)
- □ Airport foodservice (6)
- □ Military food provisions (7)
- □ Institutions such as Prisons/Hospitals (8)
- □ Gourmet food markets, such as Organics (9)
- □ Other (specify) (10)

Q20 (Areas of assistance):

(you can select more than one option)

MLA would like to better understand the areas that require assistance in advancing from the concept stage, to having products widely available in the market place. Please could you select the areas where you believe further input would potentially assist you?

- □ Sensory Product Evaluations (1)
- □ Market Research Evaluations (2)
- □ Co operative brands, to market innovative/test products (3)
- □ Advertising assistance (mentoring) (4)
- □ Removal of Trade Barriers/Restrictions (5)
- Independent advice in terms of product acceptance, in market place
 (6)
- □ Joint partnerships including research funding (7)
- □ Collaboration with other companies in similar business (8)

Screen 6: Current RM Users

Your answers reflect that your business currently has Red Meat Value Added products within your range, I would therefore like to ask you about your current range.

Q21 (Type of Red meat) :

Please could you nominate the types of Red Meat product range your business supplies?

(You may select as many as apply)

- □ Steaks (1)
- □ Chops (2)
- \Box Joints (3)
- □ Offal (4)
- □ Roasts (5)
- □ Primal cuts (6)
- □ Cooked products (7)
- □ Frozen products (8)
- □ Ribs (9)

Screen 7: Current RM Users2

Screen 8: Product types/Market Pull

Thank you,

Screen 9: Challenges

Thank you.

We are almost finished, and I do truly appreciate your time....

I would now like to discuss the challenges and/or issues in developing Red Meat Product Lines.

Q2 Example of issues Supply

Can you give me some examples in as much detail as you can, of any issues your company has had in terms of developing and marketing Red Meat Products. Firstly in terms of **Supply**

I have inserted some headings that you may use to jog your memory, these may or may not be applicable to your personal experience.

Price, availability, consistency, Ordering/Distribution?

Q3Example of issues Price

Can you give me some examples in as much detail as you can, of any issues your company has had in terms of developing and marketing Red Meat Products, Secondly in terms of **R & D**

I have inserted some headings that you may use to jog your memory, these may or may not be applicable to your personal experience.

Sensory evaluations, technical, QA issues?

Screen 10: Challenges2

Q1 Example of issues Customers req

Can you give me some examples in as much detail as you can, of any issues your company has had in terms of developing and marketing Red Meat Products, in terms of **Customers' requirements**.

I have inserted some headings that you may use to jog your memory, these may or may not be applicable to your personal experience.

Supermarket placement, shelf rent costs, in-store placement?

Q2 Example of issues Packaging Issues

Can you give me some examples in as much detail as you can, of any issues your company has had in terms of developing and marketing Red Meat Products, in terms of **Packaging issues**

I have inserted some headings that you may use to jog your memory, these may or may not be applicable to your personal experience.

Suitable film, size, pack types?

Screen 11: Challenges 3

Q1 Example of issues In-store support

Can you give me some examples in as much detail as you can, of any issues your company has had in terms of developing and marketing Red Meat Products, in terms of **In-store support**.

I have inserted some headings that you may use to jog your memory, these may or may not be applicable to your personal experience.

Support you require to make the product succeed?

Q2 Example of issues React demands

Can you give me some examples in as much detail as you can, of any issues your company has had in terms of developing and marketing Red Meat Products, in terms of **Reacting to demands**.

I have inserted some headings that you may use to jog your memory, these may or may not be applicable to your personal experience.

Reacting to customers needs, how do you become more proactive?

Screen 12: Product Development Process

Can we now discuss your product development process

Q1 Where do you most frequently source ideas for new products, or product reformulation?

Q2 What is the number of staff assigned to your new product line development process?

Q3 Please elaborate what your processes are in terms of outside/inside help during your product development?

Q4 What is the timeline for your current product development processes?

Q5 Can you please elaborate on your success/failure rate for products during your development process?

Q6 Can you describe the cost constraints that influence your product development process and how you have overcome them?

Q7 Can you describe the supply/buying constraints that influence your product development process and how you have overcome them?

Screen 13: Pre commercialization

Can we now discuss your pre-commercialisation projects

Q1 What is the timeline to get these products into the market place?

Q2 Can you please elaborate on your success/failure rate for products during this phase?

Q4 During the pre-commercialisation phase did any factors hold you back? Again I have inserted some possible heading that may or may not apply

Budget, raw material issues costs, versatility?

Screen 14: Sensory evaluation

I would now like to understand your organisation's experience with sensory evaluation.

Q1 Can you please give details of positive experience of using sensory evaluations of your products prior to getting these products into the market place?

Q2 Can you please give details of negative experience of using sensory evaluations of your products prior to getting these products into the market place?

Q3 Can you please give details about sensory evaluations of your products: do you consider them worthwhile, do you understand the processes, do they tell you anything new?

Screen 15: Selling to the Marketplace

Lastly, I would like to discuss your experiences selling your products to the market place.

Q1 If selling to supermarkets, please can you describe your experience with their placement policies?

Q2 Is there anything else, any other factors, you think we should be aware of?

Screen 16 [Thanks, sign off].