Appendix 6: A Temperate (Tasmanian) Broccoli Value Chain Analysis

Summary Report (Redacted for Confidentiality)

Introduction

ACIAR Project SMCN/2008/008 Increasing Vegetable Production in Central Province, Papua New Guinea to Supply Port Moresby Markets has a component of Objective 1, the Value Chain activity, which involves a “Value chain analyses of Australian high input, high value horticultural chains” (Objective 1.5).

This is a proposal to conduct this value chain analysis (VCA) of a new Coy A supply chain for broccoli into 24 high quality grocers in NSW.

Aims

The Project aimed to:

1. Validate the commercial partners views about what it is the consumer values (with respect to fresh broccoli);
2. Identify opportunities for the improvement the efficiency and effectiveness of the value chain;
3. Strengthen the commercial relationship between the chain partners;
4. Raise the conscious competence of primary chain partners re providing consumers with value (people development outcome);
5. Identify the benefits and costs of undertaking value chain analysis;
6. Provide comparative data and learning to inform the development of specialised locally produced high value vegetable products for the PNG market;
7. Contribute to modeling of targeted marketing suited to export development by Tasmanian/Australian vegetable chains.

Methodology

The methodology used included:

- Two consumer focus groups conducted by an independent consumer research company in Sydney;
- Face-to-face surveys conducted with 73 Coy B customers as well as consumer behavioural observations were held at the Suburb A, Suburb B and Suburb C stores;
- Data were collected from temperature and G-force data loggers placed in broccoli shipments for comparison with similar data collected from vegetable shipments from Tapini in Goilala District, PNG. Unfortunately, some Tasmanian data was lost when a broccoli shipment containing data loggers went astray. This will be repeated early in the 2014 broccoli season for completeness of the data set;
- Data from a value chain analysis using convergent interviews with managers and staff involved in the broccoli chain, as well as process observations and other data drawn from a recent lean process analysis project conducted by a third party specialist consulting firm.

This data were analysed using NVivo computer-aided qualitative data analysis software to generate important ‘themes’ relevant to the research aims. These were the basis for the Final Report to the value chain partners. Separate Consumer Research and Logistics Reports were also submitted.
It should be noted that, due to the prior in-depth, lean manufacturing analysis of the broccoli chain processes, this report focuses largely on the chain governance, relationships and communications aspects.

Findings

The findings of this research project have suggested that the main foci for the development by Coy A and Coy B should be:

1. Investing in broadening Coy A’s base of capable, reliable contracted broccoli suppliers will enable the company to meet Coy B’s desire for more cool climate broccoli;
2. Freight services across Bass Strait are absolutely constraining to future industry growth due to scale issues and the seasonal competition between tourist services and fresh produce; the latter being due to the higher profit yield of tourism services;
3. Leveraging the level of trust and common interest that already exists between the two companies to undertake more co-innovation and NPD of broccoli and broadening out the relationship to the supply of other high quality, ‘cool climate’ vegetables;
4. Significant future development of the relationship will require a change in the mindsets and culture in both companies. This will require courage and care to not disrupt core business;
5. More systematic and formalised communication and collaborative innovation has the potential to reap benefits for both parties through improving the quality, range and marketing of broccoli products;
6. Developing more closely integrated strategy, cultures and communications has the potential to facilitate the above;
7. There is potential to improve the marketing of broccoli through improving systematic consumer research, education and provenance branding;

Conclusions relevant to comparative PNG fresh produce value chains

1. Strategic alignment encompassing vision, goals, values, attitudes and behaviours is essential to effective value chain collaboration and co-innovation to solve shared problems;
2. Trustworthy behaviour to build trusting, long term relationships is the foundation of value chain development;
3. Appropriate just-in-time education and training is essential for employees/farmers involved in the chain;
4. The cool chain starts at harvest in the field as soon as possible post-harvest. Despite infrastructural differences between Australian cool chains and PNG, smallholders in PNG can reduce fresh produce losses by appropriate post-harvest handling;
5. Appropriate packaging is a critical element for the post-harvest handling of broccoli. The ubiquitous PNG white poly bag will not suffice for the transport of broccoli from Tapini. This is supported by best practice transport of broccoli from the PNG Highlands;
6. Dedicated fresh produce transport is a critical element for maintaining the high quality of broccoli.