

UNIVERSITY OF SOUTHERN QUEENSLAND

***CRITICAL FACTORS AFFECTING TRUST AND TECHNOLOGY
DIFFUSION WITHIN THE QUEENSLAND BEEF CATTLE SUPPLY
CHAIN***

A dissertation submitted by

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ABSTRACT

The beef cattle industry is one of Australia's major agricultural industries and a significant contributor to the nation's economy. This research focused on the beef cattle industry in Queensland mainly because it is the nation's largest supplier of beef products (Department of Primary Industries & Fisheries 2006c). The Queensland beef cattle supply chain can be described as a system of organizations or people (i.e. cattle producers, beef processors, etc.) involved in the movement of beef products from the source (i.e. farm, abattoirs, etc) to the end consumers. The need for an ever more efficient supply chain in today's marketplace highlights the importance of stakeholders' perceptions on collaboration, which is directly influenced by trust and technology diffusion. As with any industry, the management of the beef cattle industry comprises of several stakeholder groups, with each having its own set of expectations of performance. As such, there is a benefit in studying the factors affecting trust and technology diffusion within the beef cattle supply chain from the viewpoint of the stakeholder groups.

In addition to identifying the case study subjects located within the state of Queensland, this research also included stakeholders from Singapore. Studies were undertaken in Singapore because: (a) a study of world beef trends by Chudleigh (2003) highlighted that world beef export growth is no longer confined only to high value markets such as Japan and Korea, instead, the consumption rate in developing countries are on the rise and; (b) as the researcher is from Singapore, it was far more convenient and easier to reach case subjects in Singapore as compared to undertaking a study in the high value markets.

This study used Importance-Performance Measurement technique within the theoretical framework. The analysis was used to measure the alignment of a factor or characteristic from the stakeholders' viewpoint. Information on factor alignment allows for the development of a strategy process to help balance the challenges associated with the differences between importance and performance for factors affecting trust and technology diffusion. Thus, the research question being addressed in this dissertation was: What is the magnitude of the performance gaps of critical factors affecting the level of trust and technology diffusion within the Queensland beef cattle supply chain?

A combination of qualitative and quantitative research methods, to incorporate case studies and survey questionnaire, was used in this study. As an initial stage, a comprehensive literature review on stakeholder theory, trust theory and DOI theory was performed. The second stage involved qualitative research using multiple case studies. The final stage involved the analysis of data collected. Independent-samples t-tests and paired-samples t-tests were undertaken to assess the importance and performance rating of trust and technology diffusion.

This research has shown that a gap exists between the levels of trust, as well as the degrees of technology diffusion within the beef cattle supply chain – there is a significant difference between the importance and performance rating of both trust and

technology diffusion by all three categories i.e. stakeholder groups, stakeholder locations and stakeholder countries. Within each category, the individual groups also noted significant differences between their importance and performance rating of trust and technology diffusion factors. In addition, the research identified there is a significant difference in the importance and performance rating of quality by the stakeholders from Singapore. Such critical performance gaps (in reference to trust and technology) directly influences information flow along the chain, affecting information sharing, and ultimately reducing the level of trust.

Further studies extending across Australia can provide a more in-depth understanding and useful insight into the Australian beef cattle culture and also allow for the measurement and comparison of differing performance gaps of trust and technology diffusion across the various states in Australia. Additionally, as this research only included participants from Queensland and Singapore, further exploration to include countries not examined in this study can be highly beneficial. Comparison can be made between an assortment of countries to address if the factors previously identified with critical gaps are the same or different across countries. This research can also be extended to focus on the size of organization, which contributes significantly to the current knowledge and academic literature on the Australian beef cattle supply chain.

CERTIFICATION OF DISSERTATION

I certify that the ideas, results, analysis, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that this work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

Signature of Candidate

01 May 2009

Date

ENDORSEMENT

Signature of Supervisor

Date

Signature of Candidate

Date

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