Measuring Northern Victorian Fruit Grower Expectations of Packing Services: Preliminary Results

Railton Hill, Swinburne University of Technology
Marthin Nanere, La Trobe University

Abstract

This paper reports preliminary findings in ongoing research aimed at an understanding of the dynamics of customer satisfaction formation in distribution channels within the economically important Northern Victorian fruit industry. This work aims to correct deficiencies in the current literature concerning distribution channel satisfaction formation, via a longitudinal study involving the experiences and perceptions of the various channel members. Work commenced with a focus on grower satisfaction formation. Qualitative work established that growers nominate a set of eight elements of expectations. These have been operationalised in measures using likert scales and included in the first stage of a survey of Northern Victorian fruit growers. Initial findings appear to support the view that stable and parsimonious measurement of growers’ expectations can be achieved. Significantly, stable and parsimonious measures of global expectations and of ‘outcome’ and ‘process’ dimensions of expectations appear to be achievable. However the small number of returns currently to hand means that such findings should be viewed with caution.

Introduction

The traditional distribution channel structure for Northern Victorian fruit includes the fruit growers, packing sheds, wholesaler agents, and supermarkets. Currently the most common channel structure is from fruit grower to packing shed and then to supermarket, without an intervening wholesaler. The other common pattern is from grower to packing shed and direct to exporter. In this manner Northern Victoria sends its economically important harvest to market. For example, the industry contributes between 80 and 90 percent of Australia’s canned deciduous fruit, nashi fruit and apple production (Unpublished report).

Geysken, Steenkamp & Kumar (1999) viewed channel member satisfaction as comprising two dimensions. These are economic satisfaction, defined as a channel member’s ‘positive affective response to the economic rewards flowing from the relationship’ (p234), for example, sales volumes and margins, and noneconomic satisfaction. The latter is defined as a channel member’s ‘positive affective response to the noneconomic, psychosocial aspects of its relationship’ (p. 234), essentially the fulfilment, ease and gratification found in the relationship. We contend that application of the traditional disconfirmation of expectations model, or possibly of a ‘dualistic’ disconfirmation model, may prove superior for several reasons.

- The Geysken, Steenkamp & Kumar (1999) construct of ‘channel member satisfaction’ as defined refers only to positive affective responses. Consumer satisfaction/dissatisfaction (CSD) as a construct incorporates both positive and negative responses (Iacobucci, Grayson, & Ostrom, 1994).
The CSD construct is commonly believed to capture both affective and cognitive elements of the satisfaction/dissatisfaction response. Oliver and others have demonstrated how a series of cognitive evaluations occurs during consumption (Oliver, 1997, p337). It is not sufficient to consider only the affective component of the channel member’s response, no matter how important this component may be.

Research has linked CSD and aspects of post consumption experience such as loyalty and word of mouth behaviour (Hallowell, 1996; Soderlund, 1998). Such phenomena are clearly important to distribution channel members.

The disconfirmation paradigm was only recently applied to business-to-business services (Hill, 2000; Nowak & Washburn, 1998; Patterson, Johnson, & Spreng, 1997). The model comprises variables including expectations, (perceived) performance, disconfirmation, and CSD, as per Figure 1. The current study occurs in a highly distinctive business-to-business context, not previously researched. It also offers a further valuable opportunity to attempt modelling of CSD in a longitudinal context.

Figure 1: Basic Disconfirmation of Expectations Model (After Oliver, 1980)

Many researchers are dissatisfied with the traditional unitary expectancy disconfirmation model as an adequate explanation of the mechanism behind the formation of satisfaction. Many alternative conceptualisations have been proposed. The ‘dualistic’ model as recently tested in the Australian advertising industry (Hill, Johnson, & O'Brien, 2000) uses an outcome/process version of this model. In the Hill et al. study this enhanced model was found to offer a more fine grained picture of the dynamics of CSD formation in a business-to-business professional service context.

The Structure of Grower Expectations

The unit of analysis for this research is a buyer-seller relationship of one season’s duration. This paper reports very preliminary findings of stage one of a two stage survey being conducted, at t1 (before the fruit season). The first step towards testing to the disconfirmation model in this context is to answer the question ‘disconfirmation of what?’ Qualitative research via focus groups or individual depth interviews was necessary to delineate the elements, which make up the expectations of consumers. It is preliminary results from this initial survey research stage that is reported in this study.
Methodology

Contact with growers was provided through the cooperation of a regional growers association based in Shepparton. In a series of depth interviews (later transcribed and content analysed) with a convenience sample of growers it emerged that packers typically approach growers, with whom relatively long term relationships have sometimes been formed. The packer then comes to see the fruit before the fruit season starts (November/December). The packer indicates how much fruit (s)he will purchase from the grower. The packer may or may not provide transportation. Agreement will be made for the sale, but pricing remains uncertain until payment is actually received by the grower from three to eight months (typically three to six months) after the initial grower/packer negotiation. Hence the packer is functioning as both a service provider to the grower, and as an agent for the grower in negotiating a price with subsequent wholesalers or retailers upstream in the channel.

In Figure 2, the structure of expectations has been tentatively portrayed using a dualistic outcome and process format. (Elements supported by preliminary factor analysis – see below-are marked *).

Figure 2: Structure of grower expectations regarding packing services.
Findings

The respondents

21 growers have now returned the first questionnaire. As we are still early in the study and these numbers are obviously small, caution should be applied to the current analysis. (NOTE: a large number of responses should be available for ANZMAC 2002). All identified themselves as owner/managers. The approximate gross return of the businesses was typically (57 percent of respondents) between $100,000 and $500,000. However, around twenty percent have a gross return in excess of $1 million. They are a mature group of managers, 80 percent of whom are aged over 40, and with a similar proportion having twenty or more years experience in the fruit industry. They are overwhelmingly but not exclusively male (86 percent).

The grower-packer relationships involved are also long standing. Eighty percent are of greater than three years duration, and over half are of more than six years duration. Packing services are regarded as an important purchase, with a mean score of 5.29 on a scale of 1 = ‘unimportant’ and 7 = ‘very important’ (SD = 1.4)

Goodness of data

Multi-item variables were formed using SPSS for each of total expectations (all 8 items as per Figure 2), process expectations (5 items) and outcome expectations (3 items). Reliability testing found that ‘total expectations’ yield a standardised Cronbach alpha coefficient fractionally under .8. The five item ‘process expectation’ variable yielded a standardised alpha coefficient of .79, while the three item ‘outcome’ variable yielded a standardised a = .76.

Initial face validity is apparent through the qualitative process by which the initial delineation of elements of expectations was obtained. However, exploratory (unconstrained) factor analysis (principal component analysis with varimax rotation) using SPSS revealed three factors rather than the proposed two. The first factor, with a loading of 43 percent, corresponded closely to the hypothesised ‘process expectation’ items, with the exception of ‘maintenance of the quality of my fruit’. A smaller second factor (24 percent loading) appeared to correspond to the two aspects of packing services that undeniably are the preserve and under the direct control of the packer viz. the provision of ‘technical packing services’ and the provision of ‘guaranteed sales’. The third small factor (18 percent loading) appears to comprise the one process item not found in factor one (‘maintenance of the quality of my fruit’), plus the ‘timely provision of final payment’. This item was shared between factors one and three, which may indicate that the question is ambiguous. There is no an obvious connection between these two items loading on factor three. Confirmatory factor analysis similarly obtained, but constrained to two factors, will not be undertaken until appropriate response rate/sample size has been obtained.
Discussion

Intuitively, the factor analysis revealed makes sense. Our initial grouping of items under ‘process’ and ‘outcome’ dimensions may need further amendment, however, if subsequent testing with larger numbers confirms the analysis. Nevertheless, it appears that not only may stable and parsimonious measures of total expectations be achieved in this previously unexplored professional business-to-business service area, but that stable and parsimonious measures may be obtained of the outcome and process dimensions as well. It remains to be seen if the remainder of the traditional and dualistic variables found in the disconfirmation model, along with their dynamics, can also be measured. The research design now requires:

- Collection of more stage-one questionnaires to obtain a satisfactory return rate
- Confirmation of these preliminary findings via further analysis of a larger number of returns
- Collection of stage-two questionnaires that attempt to measure all remaining variables in the revised (dualistic) model of disconfirmation. Can we obtain stable and parsimonious measures of performance, disconfirmation and CSD, both unitary and with outcome/process (dualistic) dimensions?
- Path analysis/structural equation modelling of the hypotheses implicit in the model. For example, it would be expected that total disconfirmation of expectations would be related positively to CSD and that CSD will be positively related to post purchase behaviours such as repurchase, WOM and loyalty.

Conclusion

The research attempts to apply existing theory concerning CSD and disconfirmation. It does this by re-testing the disconfirmation of expectations approach in a business-to-business service context that is very different from the professional services hitherto examined. Results to date suggest it is likely that we will be able to measure fruit grower expectations, as a first step towards testing of the whole model. Further, the early results suggest it may also be possible to gain a finer grained perception of grower expectations by the inclusion of dimensions of outcome and process. However, the initially proposed measurement models appear to require some modification. A larger sample size is needed to clarify these issues, before subsequent stages of the research at post consumption can proceed.
References


