Mixed Methodology Approach to Place Attachment and Consumption Behaviour: a Rural Town Perspective

Maria Ryan
Edith Cowan University, Perth, Australia
m.ryan@ecu.edu.au

Abstract: This paper discusses the use of both qualitative and quantitative methodologies in examining the influence people’s attachment to their environment had on a number of consumption behaviours made by residents of a regional town in Western Australia. It discusses the concept of place attachment; its relationship with community attachment and the subsequent perceived value ascribed to living in the regional town of Narrogin, Western Australia. The use of a combination of qualitative and quantitative research methods provided an opportunity to take a macro perspective in quantifying major place and community attachment influencers in the consumption decision-making process, while understanding the meanings and sentiment behind these concepts from a micro perspective. In-depth interviews were undertaken with thirty-two residents of Narrogin. These interviews used a photo-elicitation technique in which residents were given a camera and required to take photographs of important places, people and aspects of their lives. The photos were then used as prompts for personal interviews, as respondents discussed the meaning, sentiments and stories behind the chosen photographs. The interviews provided a richness and depth to our understanding of the value of respondents’ attachment to Narrogin. The use of this technique as a forerunner to the quantitative phase is discussed and recommendations for future use are detailed. The second phase of data collection involved a telephone survey of residents from Narrogin and its surrounding area (Shire of Narrogin). This was designed to test a model and a number of hypotheses developed from the literature and the qualitative phase of the research. The model presented place and community attachment as separate, yet related constructs affecting the perceived value ascribed to living in Narrogin. Value was seen as a mediating construct between place and community attachment and consumption (shopping and staying in Narrogin) decisions. Shopping decisions included shopping for everyday grocery items, white goods, farm equipment and machinery and various services including educational, medical and aged care. Exploratory Factor Analysis and Structural Equation Modelling were used to examine the prescribed model. The results identified different attachment weightings for the town and shire communities. In general, the model was a better predictor for the shire residents than it was for town residents. The results suggest different types of management strategies are required for businesses providing for the needs of town and for shire residents based on respective residents different attachment weightings. The paper discusses the use of the photo elicitation technique in the in-depth interview stage of the research and its contribution to the development of the model as presented in the quantitative phase. Operationalising the constructs in this study has been, and still is, challenging for researchers. This paper provides valuable insights into the operationalisation process by utilising the combined methodologies approach. Uncovering stories, meanings and emotions can be integrated with an objective epistemology of attachment.

Keywords: mixed methodology; photo-elicitation technique; structural equation modelling; place attachment; community attachment; rural sustainability

1. Introduction

People are ready to participate in different sorts of activities regarding their place, depending (among other things) on the level of sense of place.

(Shamai 1991: 349)

This paper reports the finding from a study examining the influence people’s attachment to their environment had on a number of consumption behaviours in a regional town (Narrogin) in Western Australia. It further develops the current understanding of motivations underlying a selection of economic and social decisions made by town and surrounding farm residents that, in turn, affect the life and sustainability of the town. The main purpose of the work was to increase our understanding of the factors that influence consumer behaviour in a rural town. Specifically, the relationships between people’s place attachment to their town and its surroundings and a number of social and economic choices were the focus. The research contributed to the existing literature on place and community attachment and consumption value by focussing on choices made in the wider context of ‘in’ (versus ‘out’) shopping and people’s anticipated length of stay in a rural town.

Place attachment is a complex construct and research is needed to further understand its nature (Kleine and Baker 2004; Milligan 1998; Williams et al. 1992). While the construct has been used to understand attachment with recreational sites and tourist destinations (Kaltenborn 1997; Milligan

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1998; Moore and Graefe 1994; Warzecha and Lime 2001; Williams and Patterson 1999), it has had limited applications focusing on the home location environments, particularly in a rural town context.

Given the need to maintain the human, economic and social capital of towns in rural districts across Australia (Cocklin and Alston 2003), research on residents’ attachment to their town and its subsequent impact on consumption choices is timely and appropriate. Perceived value in this context provides opportunities for local retailers to understand consumers’ motivations and, by using this knowledge, develop loyalty among local residents. The study aims to provide insights into the way that local demand can be developed, thereby providing a practical contribution to solving some of the sustainability issues that are of concern in many regional areas of Western Australia.

By viewing place attachment in conjunction with consumption value, the intention was to quantify the relationship between the dimensions of attachment and perceived value and their subsequent contribution to residents’ decision-making processes. This approach broadened the use of consumption value theory by applying the concept to decisions relating to ‘where to shop’ rather than simply, ‘what product (brand) to buy’. To date, the consumption value model operationalised by Soutar and Sweeney (2001) has examined value perspectives in a retail environment, an ongoing service situation, a tourist destination context and internet purchases (Soutar and Sweeney 2001; Silcox 2001; Williams 2004; Yeo 2005). This research extended the value model to the decision (choice) to shop locally in a rural town.

In addition, the use of a combination of qualitative and quantitative research methods provided an opportunity to take a macro perspective in quantifying major place and community attachment influencers in the decision-making process, while understanding the meanings and sentiment behind these concepts from a micro perspective.

The first stage of the research was exploratory and designed to:

- explore and describe the meanings, sentiments, memories, and personal attachment to aspects of life experienced in Narrogin and its surrounding district by local residents
- explore and describe physical, institutional, human and social features of the home or town environment that contribute to a person’s sense of place
- describe common and contrasting meanings, memories, and personal attachment descriptions between town and farm residents resulting from their home and locality environment
- gain an understanding of some of the relationships suggested in Sweeney and Soutar’s (2001) value model within the context of living and shopping in Narrogin, Western Australia
- develop attachment and value dimensions, with appropriate language, that could be used in the quantitative research phase

Based on the findings obtained from the qualitative research, a number of research questions and hypotheses developed that were tested in the second (quantitative) phase of the present study. More broadly, the objectives for the second stage were to determine:

- the relationships between the various place and community attachment dimensions and consumption value in the study’s rural context
- whether these factors were related to people’s decision to buy a number of everyday shopping items (including grocery, banking, and post office services) locally (i.e. purchasing from the town itself, not out-shopping)
- whether these factors were related to people’s decision to buy household items, such as white-goods, electrical goods, furniture and soft furnishings, locally (i.e. purchasing from the town itself, not out-shopping)
- whether these factors were related to people’s decision to buy major purchases, such as cars, tractors, locally (i.e. purchasing from the town itself, not out-shopping)
- whether these factors were related to people’s decision to stay in the town (as measured by residents’ future intentions to stay in the town)

The qualitative phase was pivotal to the study for a number of reasons. Functional aspects of place attachment can be attributed to place specific physical features (Kaltenborn 1997). An understanding of these physical features was obtained by spending time in the locality and discussing local attractions and landmarks with residents. It allowed the researcher to “focus on the context that may...”
shape the understanding of the phenomenon" (Creswell 1994: 10). Within this context, it was important to learn the local language, and the qualitative research phase provided such an opportunity. An in-depth face-to-face interview technique was used to explore the emotional dimension of place attachment. Williams et al. (1992) suggested that some researchers have treated place attachment too much like a commodity and that, in doing so, the emotional and symbolic understanding of place attachment had been lost. The face-to-face interview approach was chosen (rather than focus groups) due to the nature of place attachment. There was a need to understand the ‘essence’ or ‘spirit of place’ (Kruger 1996; Milligan 1998; Relph 1976). This ‘essence’ can be manifested as the emotional aspect of place attachment, and as such, was better captured in a personal interview setting.

Qualitative research and, specifically, the face-to-face interview, provided an appropriate environment in which to explore these emotional and symbolic dimensions, adding a depth and richness to our understanding. Further, a review of the literature found no construct or framework for place attachment that was replicable within the present study. Consequently, qualitative exploratory work was necessary to develop an understanding of place attachment and its impact on consumption value.

The quantitative stage used a descriptive research design. This stage involved a questionnaire, which was distributed by telephone to Narrogin Town and Shire residents. As a result of the qualitative phase, a model and a number of hypotheses were developed. Such models are often better examined through quantitative approaches (Creswell 1994) and this was thought to be the case in the present study. In the case of place attachment in particular, much research has focussed on ‘place’ specific descriptions and experiences that relate to one place, mainly through qualitative analysis. The literature has called for a more systematic approach that would allow the generalisation of place results from one place to another (Shamai 1991). In order to understand the strength of the social embeddedness of economic actions, such as location-of-spending behaviour, more accurate measures are necessary (Cowell and Green 1994), suggesting a positivist approach. In addition, a relatively large sample enables a more sophisticated analysis of the interrelationships between a number of independent variables (Hair et al. 1998).

The research design combined qualitative and quantitative research methodologies. In general, there has been a call for both methodologies in disciplines of a sociological nature (Pawson 1996), while several writers have specifically called for an integration of these methodologies in the examination of place attachment (Kaltenborn 1997; Rowles 1990). Rowles (1990: 116) suggested that, “while in-depth ethnographic studies are essential for grounded insight, the time seems propitious for such studies to be complemented by more systematic inquiries into the meaning of place.”

1.1 Narrogin

The study was undertaken in Narrogin (a rural town in Western Australia), and its surrounding hinterland. Narrogin is situated in the wheat–sheep belt of Western Australia and is located 190 kilometres south–east of Perth, the State’s capital city.

Narrogin is located in the centre of the central south region of the state of Western Australia. It has a population of approximately 6,000 people within the Town’s and the Shire’s local government boundaries (ABS Statistics 2004) and it is a primary service centre for the surrounding agricultural region. The town has busy retail and service sectors. The town has four banks, a building society, two supermarkets, a regional library, a newspaper and a radio station; a regional hospital supported by two medical practices and a range of other health professionals.

Narrogin’s role as a service centre for neighbouring smaller towns, combined with its access to natural resources (water, fertile land), have contributed to its development. Maintaining the natural capital of the area is a current challenge and one that potentially threatens the town’s sustainability (Tonts and Black 2003). Research into the dynamics of political, social, human, produced and institutional forms of capital in Narrogin continues at various levels and information about the town residents’ and farmers’ place attachment will assist in developing a better understanding of Narrogin’s integrated structural layers.
2. Photo-elicitation

Hull IV (1992) used photo-elicitation to examine suburban residents’ perceptions of an image created by the physical features depicted in an array of photographs of scenes from their neighbourhood. He found place attachment was higher when there was a good fit between the perceived image from the photograph and a respondent’s own self-image, (operationalised as preference for a place). It seems that photographs are helpful in place studies. Indeed, photo-elicitation was felt to be ideal for the present study as it can uncover the feelings and emotions that lie behind a visual scene, revealing (in this case) residents’ image of Narrogin, and how this image was influenced by the physical aspects of the town and surroundings.

Photographs seem to motivate respondents to respond to visual prompts with more descriptive and insightful comments than they do without such visual aids (Carlsson 2001; Heisley and Levy 1991; Heisley, McGrath and Sherry 1991; Hull IV 1992; Loeffler 2005; Samuels 2004). The photograph captures the outside image of what a respondent is sensing and experiencing inwardly, providing a prompt for the respondent to drive the interview with their own words, language and values. As Collier and Collier (1986: 125) suggest, “[photo] representation of critical area[s] of the informant’s life can trigger emotional revelations otherwise withheld, can release psychological explosions and powerful statements of values.”

Further, it is often through narrative that a sense of place is formed and fixed with meaning, so a conversation about place is appropriate (Dixon and Durrheim 2000). Photographs have been used as visual projective techniques in a variety of disciplines, including tourism (Jenkins 1999) and education (Kaplan and Howes 2004; Loeffler 2005). Consumer researchers have used photographs to investigate attachment to ‘favourite things’ (Wallendorf and Arnould 1988), ‘Thanksgiving rituals’ (Wallendorf and Arnould 1991) and ‘home and interior design’ (Firth 1995). Firth’s (1995) study used respondent generated photographs to examine place attachment. In this case, the results of a free-sorting task were analysed by the Repertory Grid Technique (Kelly 1963), which is useful in uncovering respondents’ values and meanings when asked to explain choices made between objects (e.g. photographs), particularly in difficult to articulate situations. The technique has been used to explore perceived value and value that was latent in direct question interviews (Gutman 1991; Zeithaml 1988). Consequently, the technique was used in the in-depth interview phase of the study.

Respondents were initially sent a disposable camera and a letter outlining the study requirements and they were asked to take photographs of places, people and things that were important to them in their lives in Narrogin. Subsequent in-depth interviews discussed the respondents’ meanings, sentiments and stories behind the chosen photographs. The interview structure followed the ‘focussed’ interview format (Sampson 1988) that had a general question outline to guide the interview, but allowed the flexibility to adapt and probe within each interview situation. Respondents were prompted to talk about other places that were important to them that were not shown in the set of photographs. In addition, respondents were asked “What would you miss most if you left Narrogin?” This question was included to create the setting of ‘loss’ that often leads people to realise the relationship that exists between them and a place (Dixon and Durreheim 2000). In addition, information was obtained about respondents’ demographic and lifestyle backgrounds.

In relating what was important about living in Narrogin, respondents used the physical (natural and built) environments and the social and interpersonal relationships that formed within those physical settings as frameworks in their stories. This influenced the inclusion of both place and community attachment constructs in the model that was examined in the quantitative research stage.

In terms of attachment to place, the built environment was symbolised by pictures of the home, the town hospital (often because it was a place of work and held strong self-identity and social memories) and various town buildings. Public facilities were a consistent feature in respondents’ photographs, with the recreation centre, medical suites, senior citizens centre and schools being sources of pride, companionship, work and self-identity, as well as symbols of safety and town well-being. Often these facilities were the setting for social gatherings and subsequently held fond memories of friendship, enjoyment and social bonding. This was also evident within the natural environs of Narrogin, including picnic areas and parks. Of note is that place was identified with, and attached to, in its own right; not simply in a mediating role for social and community attachment.
The social fabric of the town was evident across many of the photo collections - particularly with town residents. The positive lifestyle qualities of Narrogin were evident, with safety, peace and quiet and an intense sense of community spirit underlying the stories derived from a range of photographs. Childhood memories and family gatherings created a nostalgic feel, with respondents creating their stories around photographs of the picnic areas, memorial park and churches. Club membership was also an important aspect of the social fabric, including activities such as gliding, repertory and tennis.

Respondents also exhibited a notion of caring about the town and the environment within their narratives. The intimacy with which they could relate their stories often connected with a feeling of nurturing the town and, in the case of farmers, nurturing their land (Steel 2000). Respondents were asked to choose their three most important photographs and describe how they felt when they looked at them. This technique was adopted from Hull IV et al.’s (1994) research and revealed similar emotional responses to Hull IV et al.’s (1994) classification. Feelings of peace, calm, nostalgia, uniqueness, freedom and safety were evident in the responses, with the emotional link between place and person being evident.

The interviews emphasised the attachment process in three ways, namely:
- attachment to a contextual setting allowing some activity to take place (place dependence)
- the place becoming an extension of oneself with it being “incorporated into one’s concept of self” (Krupat 1983: 343)
- the care and maintenance of the place for long-term life of the place (Steel 2000)

Further, respondents’ relationships with Narrogin were clearly evidenced by functional, social and emotional themes.

### 3. Implications for questionnaire development and quantitative phase

The in-depth interview research confirmed the impact of both place and community attachment on value creation when living in Narrogin. Attachment was embedded in the local culture, with underlying themes of place-identity, place dependence and intimacy dimensions. Social bond and sentiment were also pivotal to the attachment process, separate yet related to place attachment. These findings confirmed and extended prior research that examined the relationship between place and social bonds (e.g. Mesch and Manor 1998). Narrogin’s town and shire residents displayed similar sentiments on broad themes to those found in past research, with differences evident when examined at a micro-level. Value was attributed to Narrogin in the form of emotional, social, functional and value for money concepts.

A great deal of meaningful data covering the relationships between Narrogin, its natural and community environment, farm land and the respondents themselves were collected and collated. These results, coupled with place literature, suggested that a model could be developed that showed the relationship between place and community attachment, the value of living in Narrogin and the likelihood of shopping and staying in Narrogin. Given these observations, it seems reasonable to develop and test such a model in both the town and the shire.

A questionnaire was developed to obtain the data needed to measure the constructs contained in the suggested model. The questionnaire consisted of several sections. Screening questions were used to ensure that respondents had lived in Narrogin for more than six months, as this has been suggested as the minimum time required for attachment (or non-attachment) to occur (Cuba and Hummon 1993). In addition, a screening question asked whether the respondent was of Aboriginal or Torres-Strait Island descent because, as was noted earlier, such respondents were likely to have very different views about place attachment. The questionnaire was divided into sections that asked about:
- place and community attachment
- consumption behaviour
- the importance and satisfaction of features of Narrogin
- the probability of staying in Narrogin
- general demographic questions
4. Results of quantitative phase

The final data set included 305 respondents, most of who resided within the Narrogin town district (83%), which includes an area of 12.6 square kilometres around the town’s centre. The remaining 17 percent of the sample resided in the Shire of Narrogin, which includes an area of 1,618 square kilometres that surrounds the Narrogin town district. The sample for the Shire of Narrogin was exhausted before the initial shire quota was achieved. Therefore, the number of responses from the town area was increased. The sample was generally representative of the populations of the Shire and the Town of Narrogin, although the 15 to 29 age group was slightly underrepresented, as it was difficult to gain access to teenagers. The sample had a high degree of commitment to Australia, Western Australia, the W.A. country and their home or farm.

Reliability measures were satisfactory for all of the attachment and place value scales, although the low alpha coefficient for the functional value construct (0.61) suggested that respondents had difficulty in translating the functional aspects of goods or services to the concept of a place. Either people did not relate to their attachment to Narrogin in a functional manner or the items used need to be revised for such a context.

The in-depth interviews supported the use of the functional dimension to the attachment to Narrogin. However, the nature of the interview process (requesting respondents to take photographs of their favourite places) may have increased the emphasis on the infrastructure and utilities of the town, thus generating stories and conversation on the functional aspects of Narrogin. Nevertheless, there was significant evidence to support the further investigation of the functional dimension. Public facilities such as the hospital, recreation centre, medical suites and schools were a source of pride, companionship, work and self-identity as well as symbols of safety and town well-being. In terms of the functional value construct, both measurement and methodological issues need further consideration. This was an important consideration when blending the two methodological approaches.

The final model did not explain more than 20 percent of the variance in any of the included spending behaviours. It is clear that long-term attachment, value for money, and affective intimacy/friendship are not the only variables that influence the decision to buy products or service locally or the decision to remain in Narrogin. This was particularly true for the Narrogin town residents. When examining the sub-sample of shire residents, however, the model explained more than 20 percent of the variance in a number of spending situations, including food and gift purchases, automotive purchases and associated spending, banking and postal services.

5. Discussion

A number of outcomes were resultant from the structural equation modelling. The following discussion summarises the outcomes relating to place and community attachment.

5.1 Place attachment

This study introduced the concept of affective intimacy from the work of Steel (2000). This dimension was incorporated into the place attachment construct in response to the sense of caring and nurturing toward the town of Narrogin evident from responses in the qualitative phase of the research. The example of the group of farmers banding together to resurface the tennis court in Highbury, even though many did not play tennis, depicted the nature of community spirit in the area. The dimension of affective intimacy was influential in explaining the shopping behaviour of residents from the Shire of Narrogin of selected goods and services and in the decision to stay in Narrogin (particularly in the two to five year time frames) This dimension is worth further investigation as an element of attachment, particularly in a regional environment.

The examination of place attachment in previous research regarding recreation and tourist sites, place-identity and place dependence constructs have shown distinct dimensions of place attachment (Kaltenborn 1997; Warzeka Lime and Thompson 2000; Williams 1995; Williams and Vaske 2003). However, this was not the case in this study. No clear distinction between the two dimensions was evident. A possible explanation is that the everyday, physical relationship that exists between ‘the home’ and a person does not exist between ‘the tourist site’ and a person. This is because a place of residence is very different to a tourist/recreational setting. Additional dimensions, such as the
importance of work, recreational activities, clubs, shopping, and friends come into play with the everyday, long-term attachment existing between a place and its resident. This may result in blurring or confusing the distinction between place dependence and place-identity over time. As a further explanation, it is possible that the identity construct measurement items provided little variability across the sample and therefore did not significantly contribute to the model. The qualitative research, in the first phase of this study, did support the identity and dependence measures, but further research on the operationalisation of these concepts is needed.

While this research made a significant contribution to the way place attachment can be measured and viewed in the place of residence context, the findings from this study suggest that when focussing on place of residence, further research on the measurement of place attachment is required. An understanding of place attachment assists in managing environments effectively, contributing to a sustained and vibrant community.

5.2 Community attachment

Community attachment was highly correlated with the place attachment construct. Community attachment was operationalised in this research by social bond and local sentiment dimensions. However, the social bond items did not fit the data well. These statements do not seem to reflect the feelings of people when living in a place as opposed to visiting a place for leisure purposes. In hindsight, it is reasonable for a person to go to a place to visit because that's where friends go. However, when choosing a place to live, people establish friendships after choosing a place to live based on reasons other than friendship.

The social context of being with friends and family was apparent in the qualitative analysis of this study, revealing a sense of community spirit in Narrogin. This social context did not extend into the quantitative research findings to the same degree, presenting a challenge to the traditional community attachment items used in this context. This observation supports recent literature questioning the traditional community attachment measures (Cross 2004). Future research should focus on testing additional measures of social bonding and sentiment, which could include the strength of network ties, which was prevalent in the qualitative findings. The local sentiment aspect of community attachment correlated with place dependence and place-identity items to form the previously referred to 'long-term attachment' factor in the final model.

The qualitative research phase uncovered individual stories, memories and descriptions that were evident of the depth of emotional bonding between residents and the Narrogin area. These were distinct from the quantitative phase of the research, which found the general or group level of the meaning of place with the residents of Narrogin. For instance, the strong attachment respondents had to their home ("We are finally getting it all in order. We are having my brother's reception here"), yet when examining the place attachment model, one dimension of place attachment was the 'long-term attachment' factor, which consisted of 'not wanting to leave Narrogin'. Whilst the strong desire to stay in Narrogin is an important factor for predictive purposes in a selected range of instances, to further understand this dimension reference back to the qualitative information is required. What is it about their home, or the Narrogin town that makes residents want to stay? As suggested by Kaltenborn (1997: 187), "a paramount challenge for the development of place theories is improved integration of the key elements of phenomenological and positivist approaches" as was the aim in this research.

Operationalising the place and community attachment processes has been, and still is, a challenge for researchers. This study has provided valuable insights into the operationalisation process and the relationships between the concepts. The use of both qualitative and quantitative methods in this research has enhanced the understanding of measurement issues of both place and community attachment constructs.

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