



# The demographic profile of Gauteng rock climbers

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## Abstract

Within the broader tourism industry, rock climbing is becoming a popular adventure tourism activity worldwide. However, to date, rock climbing research has received relatively little attention in academic literature as the focus of studies in this field tends to be on the demand, as well as financial contribution and economic impact of rock climbers in general with little emphasis on the demographics of rock climbers. Therefore, this study proposes the demographic profile of Gauteng rock climbers. A self-completing, e-questionnaire for rock climbers (N=228) examined the demographic profile in the target marketing model. The results of this study could assist adventure tourism companies, and specifically rock climbing companies in identifying the financial contribution and economic impact that rock climbers might have on a specific local community, region or destination. Moreover, this study could assist companies in managing and marketing products and services that will meet the specific needs and wants of their identified target market. Companies should implement the last two steps of the target marketing model to proceed and successfully complete the systematic process.

**Keywords:** Adventure tourism, market segmentation, rock climbing, demographic, profile.

## Introduction

Tourism is a highly specialised commercial sector competing with products and services to satisfy tourists changing desires for new adventures, thrills and experiences. Among these tourism products and services are adventure tourism, which is one of the fastest growing niche tourism sectors worldwide, as stated by the World Tourism Organisation (WTO, 2014:10). Since the 1990s numerous adventure activities and experiences have evolved to adapt to the changes in tourists' demographics, motives and experiences.

In South Africa, tourism is one of the key commercial contributors to the economy (Department of Tourism, 2011:1; Stats SA, 2015a). More specifically, rock climbers (adventure tourists) have made a significant *contribution* to the South African tourism industry. For example, domestic tourists visiting mountainous areas in South Africa constitute 2.5% of the tourism industry (Stats SA, 2015b:50-51). Compared to 2011, the total expenditure of domestic day and overnight trips increased from R18 billion (Stats SA, 2012:34) to R49 billion (Stats SA, 2015b:35-36) in 2014. Assuming rock climbers form part of the 2.5% of domestic tourists visiting mountainous areas (as rock climbing takes place in mountainous areas), a deduction can be made that if 25% of the 2.5% domestic tourists were rock climbers, their expenditure in 2014 would have been approximately R306,25 million. As such, rock-climbers positively impact local communities, regions and/or destinations.



Based on the deduction, the rock climbing market in South Africa has financial and economic potential. For rock climbing companies (adventure tourism companies) wishing to enter into this market potential, it requires the companies to know who the rock climbers are. By identifying the demographics of the rock climbers, rock climbing companies (adventure tourism companies), can discover new marketing opportunities and develop or change offerings such as pricing, distribution channels and advertising which will suit the needs of potential new consumers (Kotler & Armstrong, 1996:235; Kotler & Scheff, 1997:94). This will assist rock climbing companies (adventure tourism companies) to focus on and reach potential target markets more effectively, rather than wasting efforts on non-potential markets. This can be done through market segmentation in order to identify rock climbers and classifying them into groups. As such, this study aims to contribute towards the current understanding of who the rock climbers are, by compiling a demographic profile of rock climbers in Gauteng. This is done through using the target marketing model as means to develop a profile. This study starts with a literature review on the growth of relevant segments, the methodology used, results and discussions, conclusion and recommendations.

## Literature review

Mass- and alternative tourism are commonly perceived as the two main trajectories of tourism. Each trajectory consists of its own consumer markets whose behaviours and characteristics greatly differ from each other. Mass tourism consists of a large number of tourists travelling in groups on traditional standardised tours, whereas alternative tourism involves smaller groups, travelling in smaller numbers for a specific interest, for example adventure tourism, agri-tourism, cultural tourism, educational tourism and/or scientific tourism. As the focus of this study is on rock climbing, the focus is on alternative tourists who specifically travel to explore and participate in adventure destinations and activities.

## Adventure Tourists

Alternative tourists with a specific interest in adventure, differ from mass tourists in that they are not interested in over-populated tourist locations. They seek under-used, newly emerging locations with the intention of gaining an authentic experience or thrill. Furthermore, adventure tourists differ greatly from other alternative tourist types as they are more experienced, more independent, and more flexible with changed values, changed lifestyles, and changed demographics. According to Fluker and Turner (2000:387), Active-tourism (2002:1), Williams and Soutar (2005:415) and Zaltzman (2010:1), adventure tourists' *demographics* differ from other alternative tourist types as their age group spans from younger to older males and females alike. They are generally active and affluent thrill seekers who have significant sums of money to spend in their pursuit of adventures that fit with their lifestyles. The majority of adventure tourists have a higher level of education, a professional occupation and/or some kind of specialist training, and are more likely to be married and travelling with their spouse and/or friends.

However, adventure tourists in themselves are different too. Page (as cited by Tshipala (2013:37)) distinguishes adventurers as being either soft or hard adventurers due to their specific individual characteristics and the activities they participate in. Soft adventure tourists usually take domestic trips with a guided group and get involved in pre-set activities with a low degree of danger and offers a high level of excitement. They know little about the activity they are undertaking and are most likely to let the tour operator provide specialised clothing and equipment. In essence, soft adventurers seek prearranged packages which include



transportation, accommodation, proper equipment and specialised guides (Hill as cited by Scott (2007:259)).

On the other hand, hard adventure tourists require participation in activities with a high level of adrenalin. They usually take international trips in small groups, establish their own routes, use alternative forms of transportation and accommodation, and usually do not need a guide (Patané, 2012:17-18). Furthermore, Plog (as cited by Halloway (1994:54)), as well as Hall and Page (2002:64), concur that adventure tourists can also be classified as allocentric or psychocentric tourists.

Allocentric tourists are generally externally focused, interested in others, and not egocentric. Allocentric travellers are usually attracted to adventure travel. Such tourists prefer exotic destinations, unstructured vacations and adventurous experiences, seeking thrills, excitement, risk and danger; they are outgoing and interact with other cultures and like to learn new things.

An allocentric person prefers to fly and to explore new and unusual areas before others do so. Allocentrics enjoy meeting people from foreign or different cultures. They prefer good hotels and food, but not necessarily modern or chain-type hotels. For a tour package, an allocentric would like to have the basics such as transportation and hotels, but not be committed to a structured itinerary. They would rather have the freedom to explore an area, make their own arrangements and choose a variety of activities and tourist attractions. (tutorialspoint.com)

Psychocentric tourists on the other hand, prefer familiar destinations, packaged tours, and visit conventional tourist areas. They are referred to as “the Repeater” – tourist falling in this group are typically non-adventuresome. They prefer to return to destinations that they are conversant with and where they can relax and know what types of food and activity to expect. Such tourists prefer to drive to their destinations, and usually stay in distinctive accommodations, and eat at “family-type restaurants” (tutorialspoint.com).

In this context, Keyser (as adopted by Tshipala (2013:38)) combined the four adventure tourist categories and developed criteria whereby soft and hard adventure tourists can be classified according to allocentric and psychocentric dimensions. Keyser (as adapted by Tshipala (2013:38)), proposes that by combining the characteristics of a soft and hard adventurer with the characteristics of an allocentric and psychocentric tourist, the typical allocentric tourist will be a hard adventure tourist (for example a rock climber) and the psychocentric tourist will be a soft adventure tourist (for example a backpacker), making it easier to segment and target these types of tourists in the future. For this study, the focus is on specifically rock climbers, who are typically categorised as allocentric or hard adventurers.

### **Rock Climbers**

Rock climbing has grown from mountaineering with its participants being an entirely different breed of individuals (Creasy, 1999:8), who are not afraid to leave behind the confines of normal society in search of a more fulfilling way of life (Definithing, 2015; Urban Dictionary, 2015). Rock climbers demand more from life, compete against no one but themselves, and are relentless in pursuing climbing opportunities.



According to Hobbs (2002:11), a rock climber is any person who has participated in the sport of rock climbing, whether it is indoors or outdoors. Ansari (2008:8) adds to this definition by referring to a rock climber as "...a person that systematically ascends steep terrains using surface features for foot- and handholds with or without fixed or temporary protection, requiring specialist equipment and knowledge of climbing techniques to complete the climb, which can be of any distance or duration". Rock climbers are distinguished by the distance and surfaces they climb as well as equipment they use. For example, a *boulderer* is a person who climbs short distances up rock boulders using only a crash pad for safety. A *sports climber* is a person who climbs routes usually less than thirty meters high on a natural rock wall, using only permanent rock face bolts (placed 3-4 meters apart) to protect himself while ascending the route. A *traditional climber* is a person who climbs on natural rock faces generally ranging from thirty to hundreds of meters high and uses camming devices and nuts as safety devices that can be inserted and removed from cracks and imperfections in rock faces.

However, a rock climber can participate in various types of climbing and not conform to one specific type. As such, it is more beneficial to categorise rock climbers according to their motivations, which Hattingh (2000:12), Pomfret (2004:7) and Levenhagen (2010:4-5) categorise as (1) to build character, (2) spiritual self-realisation, and (3) the achievement of flow. Firstly, Levenhagen (2010:6) states that extraordinary circumstances are means of developing character. To fully define oneself and establish worth, an individual must perform voluntary actions (which could have serious consequences) that are not available in everyday life. When an individual maintains full control of himself when the stakes are down, moral strength and integrity are indicated.

Character is a "...complex of mental and ethical traits which are built into an individual's life and are distinctive to that individual. It is those character qualities and traits, which determine a person's response in any given situation" (Roach, 2015). Zuck (2009:58) puts this into perspective by stating "...the measure of a man's character is what he would do if he knew he would never be found out".

For rock climbers, putting themselves in harm's way with potentially real danger is a means of testing their own character. In a stressful climbing situation, a rock climber is faced with many challenging questions. For example, do they have the courage, determination and mental strength to push forward and finish the climbing route, no matter what the demands are, even when they are fatigued? Can they keep their composure, staying cool, calm and collected when faced with unpredictable situations? Will they still preserve their integrity, as the temptations to depart from moral standards are easy in difficult situations (Levenhagen, 2010:7)? Testing themselves is a way of knowing their self-worth and how they could react in everyday life.

Secondly, urban lifestyles have increased the separation from nature. Today's society lacks movement and is characterised by boredom and routine which limits opportunities for self-realisation (Hanemann, 2000:29). Self-realisation is the fulfilment by oneself of the possibilities of one's character or personality; it is the act of achieving full development of abilities and talents (Merriam-Webster Dictionary, 2015). Simply put, it's the personal and cultural values of a participant which formed through a participant's self-reflection on personal desires and the participants understanding of his/her own personal and cultural values. In rock climbing, this occurs when a rock climber transitions from a mundane world into a more inspiring and daring world (Levenhagen, 2010:20).



Rock climbers seek to deliberately risk life itself to understand their own character, personality and abilities which provide a continuous realisation of oneself. Ewert (as cited by Pomfret (2004:7)) proposes that past experiences of rock climbers influence their motives. Experienced rock climbers have more internal motivators such as excitement, challenge, and locus of control and view risk positively (Fennell, 2003:31). Risks and hazards become a challenge and an element that can be controlled. Less experienced participants will have more external motivations such as acknowledgement, escape and social reasons and will view risk and hazards as dangerous and not an element that can be controlled (Fennel, 2003:31).

Lastly, Csikszentmihalyi (as cited in Miles & Priest (1990:150-153)) state that adventurous pursuits are experienced by an optimal state of 'flow'. Csikszentmihalyi (1992:62) describes 'flow' as "...a state of experience that is absorbing, intrinsically rewarding, and outside the parameters of worry and boredom". In other words, 'flow' is the state in which a rock climber is so drawn by an activity that nothing else seems to matter; the experience itself is so pleasing that they will do it at a great cost, for the sheer sake of doing it.

According to Miles and Priest (1990:150), the elements of the 'flow' experience is "...the level of total involvement and absorption with an activity, which require suitable skills in order to handle the constant challenges of the activity". In essence, the 'flow' state tests the limits of a person's being, to go beyond the former conception of oneself, expanding skills and enduring new experiences. For participants to be purely involved in an activity there needs to be a stimulus.

These stimuli can be in the form of competition, extrinsic or intrinsic rewards, or risk or physical danger, which is characterised by participation in adventure activities (Miles and Priest, 1990:150). Csikszentmihalyi (1992:62) as supported by Dickson and Dolnicar (2004:4-5) and Buckley (2012:967), also note that in some cases, the 'flow' state becomes an important sensation many people desire when they take part in adventurous activities such as rock climbing or mountaineering, where the sensation builds up throughout the duration of the adventure. The process of 'flow' ultimately leads to the 'peak experience', where a sense of exhilaration, enjoyment and overall feelings of happiness and improved quality of life are experienced. Therefore, according to Engeser and Rheinberg (2008:160), the feelings of the 'flow' state remain with the rock climber not only during the experience but also when the rock climber goes back to everyday life, resulting in a need for repetition.

Other motivations for rock climbers are related to their personality. Participants who participate in risky and adventurous sports, according to Roberti (2004:257), usually thrive on the sensation they get from the risk and dangers they experience. Pomfret (2004:7) examines two personality characteristics found in rock climbers, namely autonomy and sensation seeking.

Robinson (as cited by Pomfret (2004:7)), states autonomy as the ability and manner in which an individual will cope with intense decision-making demands in a risky situation. For example, rock climbers are constantly involved in decision-making; whether to retreat or to move forward depending on the situations they find themselves in. This may serve as a stimulus for repetition. In addition, according to Breakwell (2014:57), 'sensation seeking' is a product of risk taking. Schueller (2000:21) believes rock climbers participate in rock climbing for the sensation and thrill they experience while climbing. Swarbrooke *et al.* (2003:74), as well as Woicik *et al.* (2009:1042), explains sensation seeking as the "...seeking of varied, novel, complex and intense sensations and experiences and the willingness to take physical, social, legal and financial risks for the sake of such experiences".



Zuckerman (1979:13), supported by Hoyle *et al.* (2000:401-402), developed a sensation seeking scale (physiological model) that tests people's risk taking behaviour in a range of situations. The scale found that participants in a risky sport usually have a higher sensation seeking nature than others and that it forms part of the person's personality (Wann, 1997:82; Boyle, Matthews & Saklofske, 2008:228). As such, sensation seeking is common among risk-takers such as rock climbers and indicates the interest they have in new, risky, dangerous and exciting experiences.

Therefore, the elements of building character, self-realisation, 'flow', autonomy and sensation seeking experienced during rock climbing all contribute towards the motivations that compel climbers to climb. In this context, rock climbers are alternative, allocentric, hard adventurers, travelling in small groups or as individuals who are mostly independent. Rock climbers seek novel experiences, new settings and interactions with local customs and communities. They are conscious about the environment and would thus travel in unconventional ways to minimise negative effects on the environment. Rock climbers are determined and would spend a great deal of money to attain their goal. They are motivated to seek and explore new rock climbing possibilities and destinations where they will deliberately put themselves in harm's way to define their character, expand their self-realisation, as well as attain the achievement of 'flow', autonomy and sensation (Levenhagen, 2010:18). Rock climbing companies (adventure tourism companies), guides, and consultants can effectively segment their consumer market by developing profiles associated with motivations. The following section discusses the significance of market segmentation and identifies other variables that rock climbing companies (adventure tourism companies) could use to segment and ultimately target their markets more effectively.

### **Market segmentation bases**

George (2001:112), Kotler (as cited by Tkaczynski (2009:20)) and Larsen (2010:1) identifies four bases of market segmentation: demographic and geographic segmentation (a priori approach) and psychographic and behaviour segmentation (posteriori approach). For this study, with the aim to identify the demographics of rock climbers, a priori approach was used as market segmentation bases with the focus on demographic and geographic segmentation.

### **Demographic segmentation**

According to George (2001:37), demographic segmentation is used to group similar characteristics of a population together. These characteristics consist of gender, age, ethnicity/culture, income, family cycle and stage and education (George, 2001:112; Peerapatit, 2004:10; Goyat, 2011:48). Bowen, Bowen and Makens and Brayley and Kotler (as cited by Tkaczynski (2009:20)) as well as Ederewhevbe, Iweka and Ogbonna (2013:7), explain that demographic segmentation is a popular method as it provides an assessment to the size of the target market; it is easily identifiable, measurable and accessible; and, the needs, wants and usage rate of consumers are closely in correlation with their demographic variables.

### **Gender**

Gender segmentation is the process of dividing potential markets according to their gender segmentation has long been regarded as the basis for segmentation (Cant, van Heerden & Ngambi, 2013:84) and has often been used in clothing, cosmetics and magazine markets (Kamarulzaman & Abu, 2012:107). However, Peerapatit (2004:19) notes that gender



segmentation has not played a significant role in tourism expenditure, as travel and tourism activities are mostly done in groups and not on an individual basis. Nevertheless, men and women travel for different purposes and approach their purchasing decisions very differently. The difference is created by genders wanting different products/services from their purchasing decision (Kraft & Weber, 2012:248).

Kotler and Keller (2009b:217) attribute this to the genetic makeup and socialisation of genders. Peerapatdit (2004:19) and Kraft and Weber (2012:248) explain that women seek to satisfy long term needs/wants such as purchasing shopping holidays, visiting friends or experience a cultural holiday, while men are shorter-sighted and look at satisfying immediate or short term needs/wants and traditionally seek adventure and action. Men would, therefore, most likely travel abroad for 'sex' tourism or purchase a sports holiday. As such, the differences between genders are often used by marketers to develop offerings for a wide variety of physical needs and self-images (George, 2001:113, 2008:146).

These differences require that companies define their target market as men, women or both. Rock climbing companies (adventure tourism companies), should, therefore, define their market according to gender in order to understand how to communicate with different genders effectively and to focus on the differences between men and women (Kraft & Weber, 2012:248). However, Kotler, Bowen and Makens (as cited by Van Onselen (2010:77)) suggest that companies' marketing strategies should be aimed at consumer interests rather than gender, as gender marketing is more effective when combined with lifestyle and/or other demographic variables.

### Age group

Kotler and Keller (2009b:217) and Cant, Van Heerden and Ngambi (2013:84) repeatedly stipulate that consumer needs and wants changes and varies among age groups. Consumers of different ages buy different products. For example, teenagers may travel to destinations where there are lots of entertainment and activities, where older tourists would travel to destinations where they can relax and not be bothered by people. As such, many adventure tourism companies, specifically rock climbing companies, provide different offerings and use different marketing strategies to target various age groups (George, 2008:146, 2011:163). Kamarulzaman and Abu (2012:107) state by segmenting a market according to age groups, marketers are more certain of their target market which will ultimately lead to better productivity.

To segment a market according to age, Parker (as cited by Martins (2007:63-64)) suggests adventure tourism companies, specifically rock climbing companies, divide their market into five-year periods as indicated in Table 1.

**Table.1:** Age group periods

Life Stage	Age	Age	Age	Age	Age	Age
First Generation	1-5	6-10	11-15	16-20	21-25	26-30
Infants, toddlers & pre-schoolers						
Primary schoolers						
Senior schoolers						
Preparation years						
Freedom years						
Newlyweds & baby blues						
Second Generation	31-35	36-40	41-45	46-50	51-55	56-60
Homemakers						
Career builders						
Middle madness						
Family focused						
Empty nesters						
Easing offers						



Third Generation	61-65	66-70	71-75	76-80	+81
Retire-mentees					
Down scalers					
Granny flatters					

**SOURCE:** Parker (as cited by Martins (2007:63-64)).

In each of these periods, consumers' circumstances, interests, activities, buying behaviour and levels of expenditure change. For example:

- 16-20 Preparation stage - During this age group, young consumers prepare themselves for the adult world, finishing their high school and starting with tertiary education towards a career. A few might work full time or have part-time jobs. They may be living on their own, or still with their parents. Their income consists mainly of allowances which are mostly spent on fuel and entertainment.
- 21-25 Freedom stage - Consumers are qualified and starting with their careers. Most of them are single and live in communes or apartments. These are also courting years, where fun and entertainment feature strongly. Expenditure is self-indulgent; spending income on travelling, fashionable clothing, audio and video equipment. Sports and outdoor activities are also great attractions as well as copious amounts of liquor consumption.
- 26-30 Newlyweds stage - Consumers have new responsibilities during this stage. Many live as two-person-households, with both working full time and sometimes studying as well. Babies are, however, also becoming part of many households and consumers do need to change their lifestyles to cope with possible new-borns. Expenditure is mostly spent on practical needs.
- 31-35 Homemakers stage - Most consumers have acquired their own homes by now, and income is predominantly spent on making ends meet with children most likely being part of the household.
- 36-40 Career builders stage - Consumers are part of the rat race, progressing to middle management careers where career promotion becomes very important due to financial needs to sustain their family costs. Leisure time becomes less with children being at primary school.
- 41-45 Management stage - Consumers are entering top management positions with added responsibilities, causing an increase in stress and less family time. The family's financial position is somewhat sounder with spouses working (again) and children becoming teenagers.
- 46-50 Family years stage - Consumers have settled into their careers with children entering tertiary institutions or starting to work. Children, however, are most likely to still live at home with their parents.
- 51-55 Empty nesters stage – Consumers have more money and leisure time to spend on themselves with fewer commitments. It is mainly due to children entering the workforce, getting married and leaving home.
- 56-60 Easing off stage – Money is less of an issue due to children becoming completely independent. Consumers have more leisure time, with younger consumers taking over more of the responsibilities at work.
- 61-65 Retirement stage - Consumers are increasingly shedding responsibilities at work in preparation for retirement, and life becomes much more restful. Hobbies and vacations become important, but the lower income when retired and uncertainties about the future may limit spending. Lump sums may, however, be used partly for home renovations and the purchasing of new vehicles that have to last through retirement years.
- 66-70 Downscaling stage - Consumers contemplate moving into smaller homes or retirement villages as security becomes an important issue. Holidays and leisure time are still important, but health and coming of old age may limit activities and spending





somewhat. The activities and friendships of children, grandchildren, other family and friends, become more important.

- 71+ Dependent again stage - Consumers now enter old age or are already in that category. They become physically, emotionally and mentally more fragile. Some may already have lost their spouses through death. They become less mobile, more dependent on others for assistance with household and other chores and need help with the administration of their finances. Their needs become more focused on the basics with discretionary spending being shortened.

Rock climbing companies (adventure tourism companies) should consider different age groups when segmenting their target market. They should also be aware of the social and economic influences that different age groups experience which influences their spending behaviour.

### **Ethnicity/Culture**

Many different cultures or ethnic groups exist in large numbers, particularly in larger cities where they are often geographically concentrated. In the past, individuals with different cultural or national heritages often found it difficult to obtain products/services they preferred. More recently, companies have recognised ethnic groups as important market segments offering more products based on the needs of ethnic groups with the aim to increase market share (Hyde, 2006:1; van Onselen, 2010:79). It is, therefore, essential for rock climbing companies (adventure tourism companies), to understand the cultures and norms of particular ethnic groups when segmenting the market according to ethnic and cultural groups (Kamarulzaman & Abu, 2012:107).

### **Income**

Income segmentation has long been a practice in the automobiles, clothing, cosmetics, financial services, and travel markets (Kotler & Keller, 2009b:218). Kotler and Keller (2009b:218) suggest income allows or prevents the consumption of many travel and tourism offerings. Kamarulzaman and Abu (2012:108) add that disposable income levels influences and determine consumer's wants/needs and their purchasing power. Consumers with different disposable income levels will purchase different products/services, even within the same brand. Certain products/services are designed and priced according to customer's purchasing power, such as rock climbing companies that produce top-of-the-range and basic rock climbing apparel, for example, Black Diamond Inc. produces top-of-the-range rock climbing harnesses as well as basic rock climbing apparel such as chalk bags (Kamarulzaman & Abu, 2012:108).

The income segment, however, can be misleading and does not always predict consumers' purchasing behaviour correctly (Kotler & Keller, 2009a:138, 2009b:218). Martins (2007:65) indicates that consumers with the same income do not necessarily spend it on the same products/services. Consumers in an upscale suburb may not go to upscale restaurants, as they spend disposable income on cars or houses. Singles tend to dine out more frequently than married couples, and households with children tend to eat at home and only dine out for special occasions (George, 2001:114, 2008:146, 2011:163). Rock climbing companies (adventure tourism companies), could, therefore, utilise the income segment with other demographic descriptors to determine the correct design of products and services according to the markets income bracket.



## Family life cycle and stage

The changes in household compositions and movement in family life cycles and stages has major influences on consumer's preferences in service and product purchases (Peerapadit, 2004:15). Van Onselen (2010:79) states that the life cycle and stage (not age) segmentation approach is the main determinant of many consumer purchases. Consumers in the same life cycle may differ in their life stage. Life cycles, according to Kurtz (2008:293), is "...the process of family formation and termination" where life stage as Kotler and Keller (2009b:136-138) describes it, is "...the major concerns that a consumer faces during his/her life cycle". These are concerns such as divorces, second marriages or buying a new home.

Barnette (1969:157) hypothesised the five major family life cycles as single, married with no children, married with children at home, married without children at home and widow(er). Kurtz (2008:294) refers to Barnette's (1965:157) family life cycles as household types and adds a household blended with divorce, loss of spouse and remarriage, a household with a single parent, same sex parents/grandparents and groups of friends. However, it seems more appropriate for adventure tourism companies, specifically rock climbing companies to use Wells and Gubar's (as cited by Peerapadit, 2004:16) nine family life cycle stages: single, newly married, full nest 1 (preschool), full nest 2 (school-aged children), full nest 3 (older dependent children), empty nest 1 (still working), empty nest 2 (retired), solitary survivor in labour force and solitary survivor retired.

In order to estimate the expenditure potential of consumer groups, rock climbing companies (adventure tourism companies), should be able to identify the various family life cycle stages and consumer trends to be able to adjust their segmentation approach to meet the needs and wants of the consumer groups.

## Education

The better educated a consumer, the more likely the consumer is to earn more, thus influencing his/her purchasing behaviour. Parker (as cited by Martins (2007:64-65)) distinguishes consumers according to six life planes based on their education level:

- Life plane A - Graduated professionals such as doctors, lawyers, accountants, architects and engineers.
- Life plane B - Consumers who do not have university degrees, but have studied beyond school and have been awarded a diploma. Life plane B generally have senior positions in business.
- Life plane C - Consumers who have completed schooling, but have not studied further. Consumers tend to be found in sales or clerical positions in business.
- Life plane D - Consumers generally completed three or four years of senior school education and tend to follow technical careers such as plumbers, electricians and mechanics.
- Life plane E - Consumers have completed only one or two years of senior school education, and are usually factory workers and crafts worker assistants.
- Life plane F - Consumers have no secondary schooling and many are illiterate. Most consumers in this category find employment as domestic servants, gardeners and labourers.

According to Martins (2007:65), expenditure is a function of life stages, cycles and planes. Rock climbing companies (adventure tourism companies), could, therefore, analyse the link between life stages, cycles and planes to determine demographic profile with expenditure



patterns. The following section discusses the second market segmentation base as part of demographic segmentation, where markets are segmented according to their geographic characteristics.

### **Geographic segmentation**

Dividing markets into groups based on where tourists originate from is a very common form of segmentation (George, 2001:112). Gartner (as cited by Tkaczynski (2009:21)) refers to geographic segmentation as segmenting tourists based on their place of residence. George (2001:112), Pickton and Broderick (2005:376), as well as Kotler, Bowen and Makens (2006:263) explain that the place of residence or origin could include geographical areas such as districts, provinces, regions, towns, cities or neighbourhoods. Gunter and Furnham (1992:5) point out that the purchasing behaviour of the consumers are influenced by where they live and work. Rock climbing companies (adventure tourism companies), would, therefore, customise their products, advertising and promotions, and all their sales efforts to fit the needs of the geographical variables of consumers (Armstrong & Kotler, 2005:186).

Thus, geographic segmentation is based on the assumption that people living in similar areas share similar motivations and behavioural characteristics (Kahle as cited by Tkaczynski (2009:21)). Kolb (as cited by Tkaczynski (2009:21)) argues that because a destination is a product that consumers must choose to travel to and consume, it makes sense for geographic segmentation to be used in tourism, as tourists from different areas will visit a destination to partake in specific activities. Furthermore, geographic segmentation is useful when there are significant differences in one segment and less significant differences in another segment. For example, there might be significant cultural, traditional, and political differences at a destination which could result in differences in the product market (Gunter & Furnham, 1992:5). As such, it is appropriate for geographic segmentation to be based on destinations that are well known to actual and potential tourists (Kolb, as cited by Tkaczynski (2009:22)). For example, the Outdoor Industry Foundation (2006:159) found that 60% of American rock climbers lived in the western region of the U.S.A. compared to the 40% in the other regions. Therefore, rock climbing companies would focus their marketing efforts more on the western region of the U.S.A. where the majority of their market is situated.

### **Profiling resulting market segments**

Profiling consumer markets involves the analysis and recording of market segments' characteristics, to assess or predict their capabilities in a certain sphere and to categorise consumer markets with similar characteristics (Oxford Dictionaries, 2015). In other words, rock climbing companies should understand their consumer market, who their market is, how their market interacts with the company's product/service, and how their market perceives the company's product/service.

This analysis will provide a clear picture of the market segment based on the demographic and geographic descriptors (Czinkota *et al.*, as cited by Lötter, Geldenhuys & Potgieter (2012:101)), which can assist rock climbing companies in identifying similar characteristics among the market segmentation bases. Thereafter, market targeting and market positioning are implemented to provide an indication of the segment size, expected growth, purchase frequency, loyalty, sales profit, opportunity and risks and organisational objectives (Goyat, 2011:46).



## Methodology

For this study, a descriptive, fundamental/pure, research approach was used. Moreover, a quantitative methodology was applied as this study followed a non-experimental investigation that was limited to a single time-period.

The target population consisted of all South African rock climbers, whereas the research population consisted of all rock climbers in Gauteng. As it was nearly an impossible task to include all possible Gauteng rock climbers, the sample consisted of rock climbers climbing at popular climbing destinations in Gauteng (Bronkhorstspuit, Johannesburg and Pretoria), as well as rock climbers who are affiliated members of MCSA Magaliesberg (Pretoria) and Johannesburg. It is important to note that, *Bronkies* in Bronkhorstspuit; *CityRock* in Johannesburg, *Strubens* and *Wonderwall* in Johannesburg; and, *The Barn* and *The Boulder Cave* in Pretoria were identified as popular Gauteng climbing destinations.

A *self-completing* and *e-questionnaire* was used to collect the required data to fulfil this study's primary and associated secondary research objectives. The self-completing and e-questionnaire was constructed using the comprehensive literature review and previous profiling questionnaires. The questionnaire followed a positivistic approach and consisted of closed-ended, dichotomous, multi-choice and open-ended questions. The questions pertaining to the demographic profile of Gauteng rock climbers consisted of one open-ended question to identify the participant's age and multiple closed-ended multiple choice questions related to the participant's gender, ethnic/language group, city/province of origins, education, occupation and marital status. Prior to collecting the required data, a pilot survey was conducted to determine whether categories in the questionnaire were valid, reliable, efficient, understandable and time saving (Maxwell, 2005:56-58). The pilot study was conducted among thirty rock climbers climbing at *The Barn* and *Bronkies*. The researcher administered the fieldwork for the pilot study. Based on the feedback from the pilot survey, adjustments and improvements were made to the inconsistencies and shortcomings on the survey before it was distributed.

During June/July 2016, the self-completing questionnaires were distributed directly among rock climbers climbing at popular Gauteng rock climbing destinations, allowing for a direct response as well as a higher response rate. Simultaneously, members affiliated with MCSA Magaliesberg (Pretoria) and Johannesburg were approached to complete the e-questionnaire online. MCSA published the e-questionnaire link, created by *Survey Monkey*, in their June/July newsletter, prompting MCSA members to complete the e-questionnaire at their own discretion. *Non-probability sampling* (convenience sampling) and *probability sampling* (list-based sampling) was used to select the sample members. Of the two hundred and twenty-eight (228) responses obtained from the self-completing and e-questionnaire, one hundred and fifty-nine (159) responses were obtained from rock climbers climbing at popular climbing destinations in Gauteng and sixty-nine (69) responses were obtained from rock climbers who are affiliated members of MCSA Magaliesberg (Pretoria) and Johannesburg. As such, there was an 88.16% completion rate with two hundred and one (201) out of the two hundred and twenty-eight (228) participants who fully completed the self-completing and e-questionnaire to the end.

Statistical analysis for descriptive purposes were conducted in co-operation with a statistician from LR Research & Data Analysis Consulting (Pty) Ltd. The raw data was first turned into a numerical representation for statistical analysis. Van Onselen (2010:12) explains that a code is developed for all the response groups and then turned into a series of numbers. Using these numbers, the raw data was captured onto a database in Microsoft



Access that was imported to SAS (Statistical Analysis Software) using STATISTICA. To achieve the primary research objective of this study the demographic descriptors applicable to rock climbers climbing at popular climbing destinations in Gauteng were analysed through *descriptive, univariate* and *bivariate* analyses. For this study, the *bivariate analyses* were conducted by means of *T-test analysis*, for variables (questions) measured at an ordinal/ratio level, and *Pearson's Chi-square* for variables (questions) measured at a nominal level.

Cronbach's Alpha Coefficient was used to ensure the reliability of the research results. The resulting Alpha Coefficient of reliability ranged from 0 to 1, where 0.7 or higher was considered *acceptable*. In other words, the Cronbach Alpha Coefficient indicated a credible relationship between the data analysed and the research questions presented. Moreover, the overall Cronbach Alpha of this study was 0.7, proving the measurement instrument reliable. In terms of validity, construct validity was ensured by launching a pilot survey prior to sending out the self-completing and e-questionnaire. Statistical conclusion validity – the degree to which reasonable conclusions are made about the relationships between variables – was ensured as the research statistician validated and checked the final outcomes of the data (Drost, 2011:115).

Lastly, participants were provided with a choice to participate or not to participate. The approval of participation confirmed consent by the participant to be part of the study. All possible care was taken to keep information on databases private and to be used only for this study's purpose.

## Results and discussion

Based on the primary research objective of this study, the participants' gender, age, home language, place of residence, marital status, education and occupation are outlined. As indicated in Table 4.1, each significant demographic descriptor (mode) of the participants are highlighted in bold.

**Table 2:** Demographic descriptors

Category	Variables	Frequency	%
Gender	<b>Male</b>	<b>146</b>	<b>64.32</b>
	Female	76	33.48
Age	14 - 24	55	24.23
	<b>25 – 34</b>	<b>95</b>	<b>41.85</b>
	35 - 44	36	15.86
	45 – 54	14	6.17
	55 - 64	7	3.08
	Minimum	14	
	Maximum	63	
	Mode	28	
	Median	29	
	Average	31	
Home language	Afrikaans	83	36.56
	<b>English</b>	<b>124</b>	<b>54.63</b>
	Sepedi	5	2.20
	Zulu	2	0.88



	Southern Sotho	1	0.44
	Tswana	1	0.44
	Ndebele	1	0.44
	Other	8	3.52
<i>Residing province</i>	<b>Gauteng</b>	<b>202</b>	<b>88.99</b>
	Western Cape	7	3.08
	Limpopo	1	0.44
	Mpumalanga	2	0.88
	North-West	3	1.32
	Free State	2	0.88
	Foreign	5	2.20
	KwaZulu-Natal	2	0.88
<i>Marital status</i>	<b>Single</b>	<b>127</b>	<b>55.95</b>
	Married	71	31.28
	Divorced	8	3.52
	Living partner	13	5.73
	Other	4	1.76
<i>Level of education</i>	College/University Diploma	47	20.70
	<b>College/University Post-Graduate Degree</b>	<b>119</b>	<b>52.42</b>
	High School	54	23.79
	Primary School	2	0.88
<i>Occupation</i>	<b>Private Employee</b>	<b>111</b>	<b>48.90</b>
	College/University Student	36	15.86
	Government Employee	13	5.73
	Self Employed	44	19.38
	Scholar	14	6.17
	Unemployed	4	1.76

As indicated in Table 2 most participants are males (64.32%) compared to females (33.48%). This data correlates with the notion that males are more likely to seek adventure and action than females are. However, the increased presence of females indicated an increased interest in rock climbing. Most participants are aged between 25-34 years (41.85%) and are single (55.95%) or married (31.28%). Moreover, English (54.63%) and Afrikaans (36.56%) speaking participants are predominantly represented with most of the participants residing in Gauteng (88.99%). This is not surprising as the study's focus was on Gauteng rock climbers. However, it can be deduced that participants residing outside the Gauteng area are tourists visiting this province. Based on the highest level of education obtained, 52.42% of participants hold a College/University Post-Graduate degree. Almost half of the participants are private employees (48.9%) followed by a number of self-employed participants (19.38%). It can thus be inferred that most Gauteng climbers are likely in professional positions with incomes that match.

## Conclusion

In conclusion, Gauteng rock climbers mostly consist of single, English speaking males, between the ages of 25-34 years old, residing in the Gauteng province. These climbers possess a College/University post-graduate degree and are most likely employed as a professional in a corporate/private company.



## Recommendations

Based on the primary research objective, using participants' demographic characteristics, it is recommended that rock climbing companies (adventure tourism companies), identify the interests, activities and spending behaviour for each climbing group, as each climber's profile identifies different needs, wants and spending behaviour. For example, as the majority of this study's participants are millennials, companies should provide high-quality products and services that incorporate technology, extreme fun, socialising and confidence. Furthermore, due to the majority of participants residing in Gauteng, adventure tourism companies, specifically rock climbing companies, should focus their marketing efforts mainly on the Gauteng market, but should also be considerate to the needs and wants of visitors residing outside the Gauteng area. In addition, rock climbing sites should incorporate facilities that cater for events related to corporate teambuilding, family excursions and outings (coffee shop or picnic facilities), as well as an equipment shop with top brand names of climbing equipment. More specifically, it is recommended that companies be aware, and subsequently cater for female participation in rock climbing, as this is a growing market segment.

It is essential that companies develop rock climber profiles to facilitate their management and marketing practices to satisfy participants' needs and wants. These profiles will ultimately facilitate the attraction and retention of rock climbers visiting these establishments.

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