

The power of children for loyalty programmes: A cross-customer effect approach

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Abstract

The proposed aim of the study is to investigate the influence of children in family decision making and their propensity to act as a differentiator of loyalty programmes through the adoption of a cross-customer effect approach. The intent was to explore whether children as a cross-customer effect approach would yield effective loyalty programme measures, such as purchase frequency. The study focused on parents who had children aged between 7 and 11 years of age. The data collection vehicle used to reach parents who had children aged between 7 and 11 years of age was through public schools in the North Eastern parts of Johannesburg, South Africa. The findings portrayed that whilst physical factors such as location and convenience play a role in encouraging store patronage; behaviour can similarly be explained by the presence of a loyalty programme. Loyalty programmes that are directed at children only are successful in promoting store patronage as evidenced by the discoveries with the frequency at Checkers which operates a loyalty programme that is targeted at the child only. This supports the overarching hypothesizing that the targeting of children as a cross-customer effect marketing approach acts as a differentiator for loyalty programmes.

Keywords: children, family decision making, loyalty programmes, power

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Chapter 1

Introduction to research problem

Loyalty programmes are questionably designed with the intent to ensure future income flows (Sharp & Sharp, 1997; Kumar & Reinartz, 2016) for the company through customer retention (Sharp & Sharp, 1997). These programmes act as a customer relationship management (CRM) (Meyer-Waarden, 2008; Hu et al, 2014) tool used to stimulate customer loyalty through measures of repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), increase in basket size (Dawes et al, 2015) and a reduction in divided loyalty (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), with a higher propensity to be less sensitive to competitor promotions (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), to name but a few measures. The surge in loyalty programmes in the retail market coupled with consumers belonging to more than one loyalty programme (Hu, King, & Xiong, 2014), has resulted in the call for differentiated loyalty programmes (Sharp & Sharp, 1997). This study postulates that the movement away from the individual one to one customer engagement to engagement that includes influencing agents of the main customer (Kang, Alejandro & Groza, 2015), is more than likely to address the relative ease in which customers switch between competing retailers. A critical agent that is having a significant influence on customer buying behaviour is that of children. The successes awarded to the ability of children to influence spend behaviour (Berey & Pollay, 1968; Haryanto et al, 2016; Calderon, Ayala, Elder, Belch, Castro, Weibel and Pickrel, 2017) and patterns can be attributed to the prevailing increase of children's power in the marketplace (Berey & Pollay, 1968; Flurry & Burns, 2005; Sharma and Sonwaney, 2014; Anitha & Mohan, 2016; Calderon et al, 2017) and hence the study is based upon the power of children to act as a differentiator in loyalty programmes. The study aims to display that parents who have children aged between 7 and 11 years of age are more than likely to have their shopping frequency influenced by their children, where child-targeted loyalty programmes are present. For the purposes of the study, shopping frequency is positioned as the measure of loyalty programme effectiveness and the study posits that children have the propensity to act as an antagonist to curbing the status quo of consumers belonging to more than one competitor loyalty programme. Henderson et al (2011) displayed that whilst past research has showed that customers appreciate shopping with other people (not necessarily within the context of family influence), the influence on purchase behaviour to act as a "loyalty-enhancing relational mechanism" (Henderson et al, 2011 p. 257) consequent from shopping with others, necessitates greater insight (Henderson et al, 2011; Bijmolt & Melnyk, 2015; Palmatier & Steinhoff, 2014). Further to this, Palmatier & Steinhoff (2014) highlighted that the effects of cross-customer to stimulate programmes success is under-researched.

The present study purposes to explore the adoption of a cross-customer effect as a new and differentiated approach to loyalty programmes. The study aims to display that loyalty programs which target children harnesses the potential to drive recursive behaviour as measured by shopping frequency.

With a brief introduction setting the scene, the definition of the problem and purpose of the study being conducted is herewith presented below. In portraying the purpose of the study, a look into the business need and theoretical need for the study to be conducted is elaborated on.

Definition of Problem and Purpose

Distilling the problem

The findings from the 2017 South African Loyalty Landscape report, reported that loyalty programme usage has grown by 8% from 2016 (Cromhout, Netto, Hamilton, & Rootman, 2017). Whilst the 2017 report did not reflect the average number of programmes that a customer belongs to, the 2016 South African Loyalty Landscape report referenced Brandmapps 2015 survey which revealed that on average economically active consumers in the South African market belong to 4.6 loyalty programmes (Cromhout, Reid, & Netto, 2016). The display of consumers in the South African market belonging to on average 4.6 loyalty programmes is characteristic of what can be termed polygamous loyalty which is described as customers who do not display “monogamous” (Hu, King, & Xiong, 2014, p. 577) (i.e. 100% loyalty) relations with any brand and/or who have dealings with several brands (Hu et al, 2014). With a similar tone of reference, a customer who is affiliated with more than one loyalty programme (Hu et al, 2014) is considered to be a “polygamous consumer” (Beck, Henderson & Palmatier, 2011 p. 257), displaying polygamous loyalty (Hu et al, 2014). In light of loyalty programmes argued to be targeting polygamous consumers, the impact of loyalty programmes is constantly being questioned (Henderson et al, 2011; Palmatier & Steinhoff, 2014; Breugelmans & Zhang, 2011; Kang, Alejandro & Groza, 2015).

The questionability of loyalty programmes may well be rooted in its one to one relationship which is adopted by the majority of loyalty programmes – that is, engagement by loyalty programme practitioners predominantly takes place with their members only exclusive of their influential agents in their broader context. With the identification of polygamous loyalty being the antagonist to loyalty programmes effectiveness and success, it is reasoned that the effectiveness of loyalty programmes lies in tapping into the psychological mechanisms such as status (Henderson et al, 2011; Palmatier & Steinhoff, 2014; Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015; Diallo, Rivière & Zielke, 2015), habit (Henderson et al, 2011; Wood & Neal, 2009; Lui-Thompkins & Tam, 2013;

Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015); and relational (Henderson et al, 2011; Henderson, Palmatier & Steinhoff, 2014; Alejandro et al, 2015), with a focused intent to drive purchase frequency, increase switching barriers and limit the impact of price sensitivity in the consumer market. As loyalty programme managers seek out new ways of doing business and driving profitability, with the overarching objective of reducing polygamous loyalty, loyalty programme differentiation is paramount (Sharp & Sharp, 1997; Meyer-Waarden, 2008; Dawes et al, 2015). One perspective is to assess the individual member holistically within their broader influential environment and who within their environment has influence to drive behavioural change (Kang et al, 2016). Retailers show that parents with children spend one and a half more times in retail stores as children influence parents to visit a store to purchase a particular item for them, which in adversely leads to the parents increasing the amount which they spend in stores (Sit & Birch, 2014; Feenstra, De Faultrier, & Muzellec, 2015).

From this juncture, the study posits to display that loyalty programmes which target children may have the propensity to drive recursive behaviour through the development of habitual behaviour and hence secure attitudinal barriers to exit. The targeting of children for the purposes of driving differentiated loyalty (Sharp & Sharp, 1997; Meyer-Waarden, 2008; Dawes et al, 2015) expresses the adoption of a “cross-customer effect” (Henderson et al, 2011) marketing approach as a new and differentiated approach to loyalty programmes. This forms the backdrop of this study. Henderson et al (2011) cited that whilst past research has showed that customers appreciate shopping with other people, the influence on purchase behaviour to act as a “loyalty-enhancing relational mechanism” (Henderson et al, 2011 p. 257), consequent from shopping with others (i.e. cross-customer effect) necessitates greater insight (Henderson et al, 2011; Bijmolt & Melnyk, 2015; Palmatier & Steinhoff, 2014).

For the purposes of this study, a cross-customer effect approach is positioned as the influencing effect that children have on their parents purchasing behaviour with the objective of driving effective loyalty. One measure of loyalty is repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Ganesh, Kumar & Pozza, 2013; Dawes, Driesener & Meyer-Waarden, 2015; Hu et al, 2014) which can otherwise be termed purchase frequency, which is the measure used in the current study.

Purpose of the Research

The business need for the study

The field of study is marketing within the context of consumer behaviour. The cross-sectional study aims to explore the influence of children in family decision making and purchase behaviour for the purpose of driving an effective and differentiated loyalty program.

The argument that is put forward is that the diminished differentiation amongst loyalty programmes (Sharp & Sharp, 1997; Meyer-Waarden, 2008; Dawes et al, 2015) and increased polygamous loyalty (Hu et al, 2014) has resulted in an erosion of loyalty levels. Cromhout et al (2017) identify that loyalty programmes in South Africa have grown at a rate of 8% year-on-year. The increasing popularity of loyalty programmes employed as a tool by marketers for customer retention and driver of loyalty is however being questioned (Sharp & Sharp, 1997; Hu et al, 2014; Dawes et al, 2015; Henderson et al, 2011) and has been argued as failing to meet financial expectations (Henderson et al, 2011; Nunes & Dreze, 2006; Palmatier & Steinhoff, 2014). It is found that consumer loyalty is homogenous across loyalty programmes (Henderson et al, 2011; Hu et al, 2014) due to the lack of differentiation amongst loyalty programmes (Sharp & Sharp, 1997; Meyer-Waarden, 2008; Dawes et al, 2015). Differentiation loyalty expresses the behaviour of a consumer to be less prone to switching between retailers; reduction in divided loyalty and “true loyalty” (Henderson et al, 2011 p. 258) which surpasses mere special pricing deals (Henderson et al, 2011). In establishing differentiation loyalty, a cross-customer effect approach is explored in light of the limited research conducted in understanding the impact of cross-customer effect in enhancing consumer loyalty (Henderson et al, 2011).

CEO, Richard Brasher stated in a radio interview that one of the key drivers in its reported 23.1% growth in sales in 6 months was due to the Stikeez campaign (Whitfield, 2015). The Stikeez campaign was the short-term child-targeted loyalty programme that was operated by Pick ‘n Pay. In 2016, Checkers launched their version of a short-term child-targeted loyalty programme, Checkers Little Brands Shop, in competing with the Pick ‘n Pay Stikeez campaign. An almost identical campaign to the Checkers Little Shop campaign was originally conceptualized by UNGA, a loyalty specialist that has rolled a more or less similar campaign out in more than seven countries (Tarrant, 2016). The implementation company for the little shop campaign abroad, Agency99, stipulated that the campaign was designed to “drive incremental sales, increase basket size and encourage grocery shoppers to switch their shop” (Tarrant, 2016). A similar campaign in Switzerland, reported “3.2% increase in cumulative sales revenue, 0.5% uplift in traffic and 3.8% jump in average spend” (Tarrant, 2016).

As early as 1968, Berey & Pollay had identified children as an attractive target market given their steady growth over the years and their inherent influence over family decision making (Flurry, 2007; Ulger & Ulger, 2012; Boland, Connell & Erikson, 2012; Berey & Pollay, 1968; Mau, Schramm-Klein & Reisch, 2014; Bradley & Nadeau, 2012; Sharma & Sonwaney, 2014; Haryanto et al, 2016; Calderon et al, 2017). The targeting of children as a cross-customer effect marketing approach to bring about differentiation loyalty for loyalty programmes forms the basis of this study in providing loyalty programme practitioners with a new perspective.

Leveraging off what is mentioned above; the industry of focus for the study is isolated retailers that operate a loyalty programmes that is free. The following programmes will be used to test the hypotheses: Pick 'n Pay Smart Shopper (Pick 'n Pay), WRewards (Woolworths) and Checkers Little Brands (Checkers).

With clarification on the business need for the study being outlined, the contribution to the body of knowledge needs to be understood. Mindful of this, the theoretical need for the study is expanded on.

The theoretical need for the study

With concentration being placed on the integration of loyalty programme frameworks with that of the influence of children, it is significant to consider what is known about the field of loyalty programmes and the influence of children and identify what is not known – at this stage. The increasing popularity of loyalty programmes employed as a tool by marketers for customer retention and driver of loyalty is being questioned. (Sharp & Sharp, 1997). The argument that is put forward by Sharp and Sharp (1997) is that the diminished differentiation amongst loyalty programmes and increased skepticism by consumers has resulted in an erosion of loyalty levels (Sharp & Sharp, 1997; Meyer-Waarden, 2008; Dawes et al, 2015). Businesses spend excessive amounts in rewarding polygamous consumers which is a commercial model that is arguably not sustainable in the long-run and may result in the ultimate restructuring or cancellation of the programme (Hu, King, & Xiong, 2014). As a result of the gap that exists between expectations and actuals derived from loyalty programmes, a new approach may be needed (Henderson, Beck, & Palmatier, 2011).

Henderson, Beck and Palmatier (2011) expands on the theoretical framework of loyalty to include multiple loyalty-inducing psychological mechanisms such as status (Henderson et al, 2011; Palmatier & Steinhoff, 2014; Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015; Diallo, Rivière & Zielke, 2015), habit (Henderson et al, 2011; Wood & Neal, 2009; Lui-Thompkins & Tam, 2013; Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015); and relational (Henderson et al, 2011; Henderson, Palmatier & Steinhoff, 2014; Alejandro et al, 2015) as opposed to past research which views loyalty programs on a single theoretical instrument. This research and findings are supported by Wood and Neal (2009) who explore the habits of consumers in a deeper context. Although there is still much research needed in the context of loyalty programmes, the basis of the study is derived from one of the future research considerations raised in the works of another researcher: “What is the effect of loyalty programs and other defensive marketing efforts on ‘differentiation loyalty’ (the degree that a brand’s customer base is immune or insensitive to competing offers)” (Sharp & Sharp, 1997).

The targeting of children as a differentiation loyalty forms the backdrop of the study objectives. Conscious of the representative power of children in the buying center (Berey & Pollay, 1968; Haryanto et al, 2016; Calderon, Ayala, Elder, Belch, Castro, Weibel and Pickrel, 2017), the question that is postulated is in understanding why children have, to the larger extent, been excluded in loyalty programme designs and benefit awarding on an ongoing, consistent and regular basis as opposed to the short-term tactical child-targeted programmes. Formed against the backdrop of the study by Flurry and Burns (2005), the present-day study, applies social power theory; which is often the conceptual framework taken in understanding the influence of children in the family decision making process and/or purchasing behaviour.

The future research that has been identified at this early stage, as a derivative of the study is on the potential cost-savings that free sign-on retail loyalty programmes can derive through cross-customer effect marketing adoption. In addition, a longitudinal study to gage whether the change in target consumer results in a change in habitual behaviour and reduces divided retailer loyalty is another piece of research needed to form a differential view of my study. As argued by Calderon, Ayala, Elder, Belch, Castro, Weibel and Pickrel (2017), there is a notable difference between what is reported by parents and what is observed and hence it is imperative to the future body of knowledge that this study approach be considered for future research.

Whilst the prominence of knowing what is in the field and acknowledging what is unknown, emphasis must be placed on what is unknown on the premise that it affords researchers the opportunity to gage what requires further researching thereby ensuring significant contribution to the body of knowledge. In addition, it serves as a sense of directing and leap-frogging research topics.

As expressed earlier in this section, the focus of this study is to investigate the propensity for the targeting of children in a cross-customer effect to bring out differentiation in loyalty programmes. As researchers (Sharp & Sharp, 1997; Meyer-Waarden, 2008; Dawes et al, 2015) call for differentiation in loyalty programmes to curb polygamous loyalty and inculcate increased switching barriers and attitudinal barriers to exit, an outlook on children, framed around their social power, is explored to understand their influence on parents purchase behaviour – as measured by shopping frequency metrics. The study in itself poses to demonstrate reverse socialisation, instilled through the means of a cross-customer effect marketing approach.

To gauge which of the five powers: expert power, legitimate power, referent power, reward power and coercive power; has the resultant impact on parents shopping frequency, ten hypotheses have been developed. Five of the hypotheses tackle the power of the child to influence shopping frequency when the child is present during the act of shopping and the other five hypotheses address the power of the child to influence shopping frequency when the child is not present during the act of shopping – the latter being tested to apprehend whether the influence of the child lies within the buying center of the family decision making process. Apart from these ten hypotheses, an additional hypothesis had been structured to assess the influence of individual-targeted and child-targeted loyalty programmes on shopping frequency.

The fundamental outcomes from the study revealed that granted that traditional factors such as location and convenience play a role in encouraging store patronage; behaviour can similarly be explained by the presence of a loyalty programme. The expert power of a child is influential in endorsing shopping frequency at a store, however, a child's knowledge and experience is superceded by that of the presence of a loyalty programme. This reveals that reverse socialisation is prevalent to a degree but that loyalty programmes designed for the parent still remains the underpinning reason for patronage. This displays the effectiveness of loyalty programmes, which have been argued by past researchers. Considerate of this finding, loyalty programmes that are directed at children are equally as successful in promoting store patronage as evidenced by the findings with the frequency at Checkers which operates a loyalty programme that is targeted at the child only. This supports the overarching hypothesizing that the targeting of children as a cross-customer effect marketing approach acts as a differentiator for loyalty programmes. Supportive of this is the significance of a child's coercive power at Woolworths. Woolworths operates a personalised loyalty programme that is directed at parents, however, it is also affiliated with a child/community loyalty programme MySchool. The discoveries pertaining to Woolworths patronage depicted the highest level of frequency being explained by the variables Power, Age_Child and Participation. Whilst none of the powers were significant on inclusion of participation in the loyalty programme, the coercive power of the child was significant outside of this variable.

The relative importance of the findings of the study is for loyalty programme practitioners to acknowledge the influence of a child's expert power when they are present. In the business realm, it is a changing cross-customer marketing approach that needs to be harvested with the intent of curbing polygamous loyalty, through increasing switching barriers and attitudinal barriers to exit. Whilst a small degree of reverse socialisation could be proven in light of a child's expert power only being significant in influencing shopping frequency when they are present in the act of shopping and coercive power being significant at Woolworths, assumed

to be its affiliation with the MySchool loyalty programme; it is imperative in promoting a customer lifetime value benefit to the business that loyalty programme practitioners leverage off this finding or expand on the work that has been conducted.

Brief outline of the document

With a presentation of Chapter one, the introduction to the research, being framed within the borders of distilling the problem, conceptualising the business need and positing the theoretical need for the study, this report advances to Chapter two which considers the extant literature on loyalty programmes, marketing to children as a cross-customer effect approach and the social power of children to influence the family buying centre. Incorporated into the literature review, is the hypotheses which are to be tested. Chapter three provides an outline of the research methodology and design employed to reflect the data collection process adopted by the researcher, before presenting an analysis of the data. An analysis of the data is presented in Chapter four to reflect the mere numerical findings from the statistical tests, whilst Chapter five discusses the results within the context of the literature elaborated on in Chapter two. The report is concluded in Chapter six in presenting the practical implications for business, the limitations of the research and suggestions for future research which can be undertaken by academics or business.

Chapter 2

Theory and Literature Review

Having presented the business need for this study, an introduction into loyalty programmes and why they are implemented in retail businesses are contextualized. The pros and cons are offered in reviewing the different, yet, commonly applied solutions that loyalty programmes adopt, in promoting successful and effective loyalty programmes, as measured through a number of different metrics. With the success of loyalty programmes being questioned, as they continue to grow and spread across the globe as a customer retention marketing tool, a lack of differentiation is highlighted as a stumbling block to truly capture customer loyalty; which predominantly focuses on an individual member-targeted approach. With the rise of customers belonging to more than one loyalty programmes and often that of competitor loyalty programmes, a discussion into the potential opportunity to be harnessed in a cross-customer effect approach and who to target in the cross-customer effect marketing approach is followed upon. From this point, the chapter thereafter leads to the marketing to children as a possible cross-customer effect approach and why this market possesses an opportunity in differentiating loyalty programmes – by curbing what is termed polygamous loyalty, which for the purposes of the present-day study is defined as a customer who is not >50% loyal to any single retailer. As a potential protagonist to a differentiated loyalty programmes, a view on the social power that children possess in influencing the family buying centre is elaborated on, to champion the propensity of the power of children for loyalty programmes differentiation.

Introduction to loyalty programmes

Many marketers across the globe have in recent years contributed to the concept and growth of loyalty programmes. Loyalty programmes are questionably designed with the intent to ensure future income flows (Sharp & Sharp, 1997; Kumar & Reinartz, 2016) for the company through customer retention (Sharp & Sharp, 1997). These programmes act as a customer relationship management (CRM) (Meyer-Waarden, 2008; Hu et al, 2014) tool used to stimulate customer loyalty through measures of repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), increase in basket size (Dawes et al, 2015) and a reduction in divided loyalty (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), with a higher propensity to be less sensitive to competitor promotions (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), to name but a few measures. Customers subscribed to these loyalty programmes are in essence rewarded for their loyalty to the company.

With the increasing popularity of loyalty programmes being employed as a tool by marketers for customer retention and driver of loyalty, its efficiency is being questioned (Sharp & Sharp, 1997). In some perspectives, the notion of loyalty programmes to foster customer loyalty is positioned as irrational, on the view that the expectation from business is that customers will continue with the status quo even where they have an option to switch to a better alternative (Melnyk & Bijmolt, 2015).

A loyalty programmes which is in essence a commercial model, is arguably not sustainable in the long-run and may even result in the ultimate restructuring or cancellation of the programmes (Palmatier & Steinhoff, 2014). Loyalty programmes restructuring or the unfortunate cancellation of loyalty programmes are considered to be indicators of loyalty programmes that are underperforming. Underperformance is however contextualised from a business financial perspective centered on long-term sustainability, in some instances. Whilst understandings to the reasoning/s behind the poor performance of loyalty programmes remain unclear, the diminished differentiation amongst loyalty programmes and increased skepticism by consumers has certainly resulted in an erosion of loyalty levels (Sharp and Sharp, 1997).

Businesses spend excessive amounts in rewarding a customer who is affiliated with more than one loyalty programmes and displays polygamous loyalty (Hu, King, & Xiong, 2014), henceforth being considered to be a polygamous consumer (Henderson et al, 2011). Polygamous loyalty can be characterized as customers who do not display “monogamous” (Hu, King, & Xiong, 2014, p. 577) (i.e. 100% loyalty) relations with any brand and/or who have dealings with several brands (Hu, King, & Xiong, 2014). In light of loyalty programmes targeting “polygamous consumers” (Beck, Henderson & Palmatier, 2011 p. 257), the impact of loyalty programmes, measured against the metrics mentioned earlier, are placed in disrepute (Henderson et al, 2011; Palmatier & Steinhoff, 2014; Breugelmans & Zhang, 2011; Kang, Alejandro & Groza, 2015).

With the identification of polygamous loyalty being the antagonist to loyalty programmes effectiveness and success, it is reasoned that the effectiveness of loyalty programmes lies in tapping into the psychological mechanisms such as status (Henderson et al, 2011; Palmatier & Steinhoff, 2014; Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015; Diallo, Rivière & Zielke, 2015), habit (Henderson et al, 2011; Wood & Neal, 2009; Lui-Thompkins & Tam, 2013; Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015); and relational (Henderson et al, 2011; Henderson, Palmatier & Steinhoff, 2014; Alejandro et al, 2015), with a focused intent to drive purchase frequency, increase switching barriers and limit the impact of price sensitivity in the consumer market,. An insight into promising solutions adopted by practitioners of loyalty

programmes to “play” on these psychological mechanisms are delved into and contextualized in terms of its success to diminish polygamous loyalty.

Having postulated the intent of loyalty programmes as measured against the various metrics and the rise of the polygamous consumer, the efficacy of loyalty programmes to reduce polygamous loyalty or what can be deemed polygamous consumer behaviour, is a topic of debate. In advancing the discussion on loyalty programmes, an exploration into resolutions employed by loyalty programmes practitioners to curb polygamous loyalty is carried out, with an acute reflection that almost all, if not all loyalty programmes inculcate a single member, 1:1 relationship view of the customer. As progression is made in accepting the success or failure of solutions implemented to curb polygamous loyalty, it is suggested that loyalty programmes must broaden their relationship with their target customer to include those who may have influence over the target customers’ level of loyalty – in an effort to dramatically curtail polygamous loyalty on a long-term, sustainable basis.

Applied solutions to address polygamous loyalty

Differences in financial measures, purchase frequency measures, loyalty programmes design, thought into the benefits and status levers to pull upon and loyalty communications; all provide an overview into potential loyalty differentiator resolutions employed by business in an effort to curb polygamous loyalty. A look into each of these solutions is explored and contextualized in terms of its effectiveness to curb the sweltering problem of polygamous loyalty.

Loyalty benefits and status

For retailers to be successful, they need to create perceived value for the customer (Kumar and Reinartz, 2016). Perceived customer value is defined as “net valuation of the perceived benefits accrued from an offering that is based on the costs that they are willing to give up for the needs they are seeking to satisfy” (Kumar and Reinartz, 2016, p. 37). This constituent needs to be reflected in the design of loyalty programmes when evaluating propositional offerings between hard (rewards-based) and soft (recognition-based) benefits (Rosenbaum, Ostrom & Kuntze, 2005; Lee, Tsang & Pan, 2015; Kumar & Reinartz, 2016). Hard benefits are typically classified as rewards-based in which points of cash are earned and accumulated and/or special discounts are extended (Lee et al, 2015; Kumar & Reinartz, 2016). These benefits are typically monetary based, whereas soft benefits tend to be recognition-based such as free upgrades, preferential access to events and/or exclusive non-monetary based benefits – to name but a few (Dreze & Nunes, 2008).

Monetary or hard benefits serve to meet customers’ functional needs and include free gifts,
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ad hoc special discounts and vouchers (Dreze & Nunes, 2008; Melnyk & Bijmolt, 2015; Kumar & Reinartz, 2016). Such propositions are assumed to enhance loyalty and increase switching barriers; however the difficulty with this loyalty programmes proposition is that they are typically costly for the company and the impact of cancelling a loyalty programmes remains unclear (Palmatier & Steinhoff, 2014). More importantly, this type of loyalty programmes benefit trains customers to become attentive to offers and as a result arouses a customer to search for further special offers, resulting in a switchable usage of several loyalty cards from competitive companies (Melnyk and Bijmolt, 2015).

The potential effect for a retailer whose customer concludes that the proposition of the loyalty programme is of the highest value, is the transformation of actions into attitude (loyalty and satisfaction) and behavioural (customer lifetime value and customer loyalty) aspects (Kim, Lee & Park, 2014; Melnyk & Bijmolt, 2015; Kumar & Reinartz, 2016).

The literature currently suggests that design of one to one loyalty programmes could be corrected through moving away from monetary benefits as it becomes quite apparent that monetary loyalty benefits only serves to heighten polygamous loyalty (Hu et al, 2014; Lee et al, 2015). This promotion of polygamous loyalty is as a result of customers increasing their search for the best deal in the market as opposed to remaining loyal to one retailer (Hu et al, 2014) – the positioning of an irrational view posited of loyalty programmes (King et al, 2014; Melnyk & Bijmolt, 2015). Despite this observable detection of promoting polygamous loyalty, academics remain conflicted on the effectiveness of monetary benefits in promoting effective loyalty programmes performance (Melnyk & Bijmolt, 2015), arguing that the pressure to increase rewards or points earned (hard benefits) motivate an incline in purchase rates (Sharp & Sharp, 1997; Yoo & Bai, 2013; Steinhoff & Palmatier, 2014; Lee et al, 2014; Dawes et al, 2015). Surprisingly, the incline in purchase rates is said to represent a short-term relation (Lee, Capella, Taylor and Gabler, 2014; Kumar & Reinartz, 2016), which does not support the intent of loyalty programmes, that being to promote long-term customer relations and could arguably be portrayed as a stimulant of polygamous loyalty (Hu et al, 2014; Lee et al, 2014).

Soft benefits are generally associated with special privileges that invoke symbolic elements such as priority boarding on flights, exclusive checkout counters and exclusive first right access to information or invites (Kumar et al, 2013; Melnyk & Bijmolt, 2015; Kumar & Reinartz, 2016). This proposition is rooted in promoting a most valued customer frame of mind, resulting in an elevated status for the customer (Melnyk & Bijmolt, 2015). Largely, soft benefits seek to promote long-term relations in that customer's increase how much they spend at said company, post the reward being received (Lee et al, 2014).

Questionably, loyalty programmes that promote soft benefits are generally targeted at customers who form part of the upper echelon of the loyalty programmes (Dreze & Nunes, 2008; Kumar & Reinartz, 2016; Melnyk & Bijmolt, 2015) and whilst this may retain them as loyal customers, their loyalty needs to be measured on the propensity for them to not be a polygamous customer as inferred by their income status (Kang et al, 2015). It can be argued that an upper echelon customer on the programmes might be in the financial position to be the upper echelon customer on many loyalty programmes and hence leverages off the soft benefits offered by other, even competing loyalty programmes propositioned (Kang et al, 2015; Melnyk & Bijmolt, 2015). Unfortunately, benefit framing still promotes a one on one loyalty programme architecture (Henderson et al, 2014) with very rare instances of benefits spilling over to the broader context of the individual, thereby, not openly addressing the issue of polygamous loyalty (Hu et al, 2014; Kang et al, 2015). This leads the discussion to a corresponding applied solution adopted by loyalty programme practitioners - that being loyalty program design. In the business architectural design of more common loyalty programmes, it is expected that the design of loyalty programmes tug on the psychological mechanisms of status, habit and/or relational as postulated at the beginning, hence promoting the efficacy of loyalty programmes in the context of reducing polygamous loyalty.

Loyalty programmes design

With loyalty programmes generally speaking to those customers who are members of their programmes (termed for the purpose of future reference in this paper as individually-targeted programmes), it is postulated in the literature that a hierarchical loyalty programme structure appeals predominantly to status (Henderson et al, 2011; Kang et al, 2015). Underpinned through the pulling of a status lever being pulled on, the intent of such a loyalty programme design is to induce customers to move up the tiers of their loyalty programme, with this inevitably translating into increased loyalty (Steinhoff & Palmatier, 2016; Beck, Chapman & Palmatier, 2015, Kang et al, 2015). The promotion of status is envisioned to curb polygamous loyalty, as unswerving loyalty is needed to move up and maintain status level positions in hierarchical loyalty programmes (Steinhoff & Palmatier, 2016; Beck, Chapman & Palmatier, 2015, Kang et al, 2015). Whilst the programmes is designed to appeal to status, moving up the tiers of hierarchical loyalty programmes is only conceivable through the habitual, long-term behaviour of the customer (Kang et al, 2015). Practitioners build such loyalty programmes on the merit that driving status through habitual behaviour results in the formation of a relationship with the customer (Steinhoff & Palmatier, 2016; Beck, Chapman & Palmatier, 2015, Kang et al, 2015), with the resultant effect of reduced polygamous loyalty in and amongst their customers.

Whilst feelings of progress and achievement are accompanied with high status, research demonstrates that on the opposite spectrum, a customer with a low status ranking exhibits feelings of envy and even celebrates when the status rankings of those in high standing are compromised (Melnyk & Bijmolt, 2015; Kang et al, 2015; Steinhoff & Palmatier, 2016). As such, the positioning of status in loyalty programmes messages can have two potential outcomes, dependent on where the customer ranks on the hierarchical loyalty programmes structure (Breugelmans & Zhang, 2011). In a nutshell, hierarchical loyalty programmes structures have reflected negative effects on purchase behaviour (Breugelmans & Zhang, 2011; Eggert, Steinhoff & Garnefeld, 2015), in that customers at the bottom of the structure become dissatisfied with the benefit offered by the loyalty programmes when considering the inequality displayed in the manner of how customers on the programmes are treated (Eggert et al, 2015). As such, marketers are advised to reward high patronage customers without demotivating medium to lower patronage customers (Henderson et al, 2014; Eggert et al, 2015; Melnyk & Bijmolt, 2015). Despite the inconsistent success modelled by hierarchical loyalty programmes designs, the effectiveness of loyalty programmes is largely contributed to loyalty programmes designs (Sharp & Sharp, 1997; Melnyk & Bijmolt, 2015).

Once again, the driving of status in loyalty programme design to stimulate customer loyalty is one that is individually-targeted and does not consider the broader context of the customer (Kang et al, 2015). Whilst a deeper exploration into hierarchical programme design in the context of income affordability, demographics and economic opportunity is not addressed in this paper, it is postulated that a hierarchical structure fails to reduce polygamous loyalty, more so in and amongst those medium to lower patronage customers. In presenting the position that hierarchical loyalty programme designs fail to some degree or another to weaken polygamous loyalty. The question that plagues the researcher of the current study is whether this failure is owed to the failure by loyalty programme practitioners to include the broader group of the individual member to promote customer loyalty.

With loyalty programme benefits and design failing to account for the curbing of polygamous loyalty, a look into the operational costs and profitability measures employed by practitioners is discussed. The intent of this discussion is to gage the impact of loyalty programmes to a business – still mindful of the curbing of polygamous loyalty.

Operational costs versus profitability measure

The cost of operationalizing any loyalty programme includes finance, marketing, partnerships, training, technology and the rewards themselves (Sharp & Sharp, 1997; Kumar & Reinartz, 2016; Lee et al, 2014). Whilst some academics position that the operationalization of a loyalty programmes as a customer retention tool is the cost of doing business (Lee et al, 2014), others argue that the saturation of loyalty programmes in the

marketplace coupled with consumers being linked to multiple loyalty programmes (Hu et al, 2014; Haryanto et al, 2014; Dawes et al, 2015), is likely to result in the positive effects on loyalty programmes at any individual company cancelling out the effects of individual loyalty programmes (Lee et al, 2014).

On a separate viewpoint, the question that tends to be typically raised by academics in the field of loyalty programmes is whether this tool promotes short-term or long-term relationships (Lee et al, 2014; Kumar & Reinartz, 2016; Melnyk & Bijmolt, 2015). For the purpose of securing future income flows (Sharp & Sharp, 1997; Kumar & Reinartz, 2016), loyalty programmes are positioned to focus on the long-term customer retention and not on the short-term, yet loyalty programmes are not always designed with such a mind-set and academics on the efficacy of loyalty programmes are largely conflicted in thought (Lee et al, 2014).

As stated above, loyalty programmes look at the future income (Sharp & Sharp, 1997; Kumar & Reinartz, 2016) and value that a customer possesses for a company (Kumar & Reinartz, 2016) and is a customer retention tool adopted in business for the purpose of securing future income flows (Sharp & Sharp, 1997; Kumar & Reinartz, 2016) to the benefit of the company. Kumar and Reinartz (2016) echo this sentiment of a customer's future contribution to a business, on the ideology of future value contribution to such a business, which is conceptualized as the customer lifetime value (CLV). One of the listed drivers of CLV is that of participation in loyalty programmes (Kumar and Reinartz, 2016). A study conducted by Lee et al (2014) which focused on the financial impact of loyalty programmes in the hotel industry revealed that whilst loyalty expenses (i.e. operational costs) are positively associated with occupancy rates (i.e. outside of the financial side of the company) and profitability (revenue less expenses), they failed to return higher revenues (sales turnover). On the other hand, the study reflected that investment by a company into a loyalty programmes is relatively more effective in boosting occupancy rates than are other sales and marketing initiatives (Lee et al, 2014). Arguably, the loyalty programme instilled the notion of promoting the CLV (Kumar & Reinartz, 2016) but at a diminishing rate of financial return when measured against revenue metrics (Lee et al, 2014). This raises the question on what financial metric is the correct metric to be used in measuring loyalty programme efficacy.

The inconsistency in measuring the efficacy of loyalty programmes plagues the literature. The link between customer satisfaction and the profitability of loyalty programmes contends with the view that loyalty programmes fail to encourage the desired consumer buying behaviour or stimulate an increase in a company's profitability (Gandomi & Zolfaghari, 2014). Upon measuring the operational costs of a loyalty programmes against the intended purpose

of loyalty programmes to secure future income (Sharp & Sharp, 1997; Kumar & Reinartz, 2016) and increase profitability (Gandomi & Zolfaghari, 2014), it becomes somewhat palpable that one of the prospective explanatory factors is the presence of consumers' polygamous loyalty.

One of the key measures of profitability is purchase frequency (Lee et al, 2014; Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014; Haryanto et al, 2016). This is one of the more popular measures of success that practitioners adopt in managing the financial narrative back to business.

Purchase frequency measure

Purchase frequency (also referred to in the literature as repeat-purchase), is the increased number of times that a customer frequents a particular retailer (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014; Haryanto et al, 2016). When a customer purchases more products or services from a single retailer, the result is that of an increase in purchase frequency (Beck et al, 2011; Liu Thompkins & Tam, 2013). Some loyalty programmes reward customers for repeat purchases (Gandomi and Zolfaghari, 2013). Purchase frequency which is promoted as a measure for loyalty programmes tend to link this to customer satisfaction (Gandomi and Zolfaghari, 2013; Dawes et al, 2015; Kumar et al, 2013). The question that plagues the research of the current study is whether the quantity of sales (revenue) is the goal post or is it profitability?

In the context of profitability, it was earlier demonstrated by past researchers that loyalty programmes do not stimulate profitability (Lee et al, 2014; Kumar & Reinartz, 2016) and this is inferred by the researcher of the present study to polygamous loyalty. Similarly, it is inferred that the stimulation of cross-buying behaviour results in a short-term positive impact, but fails to discourse the underlying issue of polygamous loyalty.

With rising financial operational costs; a lack of profitability being stimulated by loyalty programmes and different measurement metrics being employed to measure loyalty programme success; a look into communication in loyalty programmes is carried out, with the intent of gaging whether the current communication approaches by loyalty practitioners are successful in curbing polygamous loyalty and whether the customers influencing populace is considered in communication plans.

Loyalty Programme Communication

Pinnacle to the success of any marketing approach or campaign is communication with customers on the available benefits subscribed to them (Henderson et al, 2014). If a loyalty programme is put into the market and measured against its ability to generate profitability and/or promote purchase frequency – it goes without saying that the customer needs to be informed of such benefits and how the programme works. Given that loyalty programmes are a customer relationship management tool (Sharp & Sharp, 1997), a database of customers who have registered for or subscribed to the loyalty programmes; inform loyalty practitioners on which customers they can communicate to with the purpose of promoting long-term customer relations, so as to secure future income (Sharp & Sharp, 1997; Kumar & Reinartz, 2016). With the loyalty programmes database serving to collect a rich set of information on its “loyal” customers; communication in loyalty programmes continues to adopt a one to one relationship, in what practitioners more generally term customer or member engagement (Henderson et al, 2014; Breugelmans, Bijmolt, Zhang, Basso, Dorotic, Kopalle, Minnema, Mijnlief & Wunderlich, 2015). For the purpose of positioning communication in loyalty programmes as applied in business, the term member engagement will be used in forward moving discussions.

The database that houses the members of loyalty programme should cater for the segmentation, targeting and positioning marketing communication strategies with contextualized messaging to the individual member only – promoting a one to one relationship (Kang et al, 2015; Breugelmans et al, 2015). Member engagement can therefore be argued to fail in extending beyond the individual customer and arguably miss the mark in making an allowance for the influencing populace in and around that customer.

In the one to one relationship promoted in loyalty programme communications, one of the standard forms of communications includes balance notifications of accumulated rewards (Dorotic, Verhoef, Fok, Bijmolt, 2014) – whether it is hard or soft benefits awarded to the customer (Rosenbaum, Ostrom & Kuntze, 2005; Lee, Tsang & Pan, 2015; Kumar & Reinartz, 2016). In the occurrence of hard benefits being awarded, the most salient part of being a member of a loyalty programme is the redemption of said accumulated rewards. Academics argue that an increase in liabilities held by the company in the form of rewards and efforts such as imposing expirations or minimum threshold policies undermine the efforts of building loyalty with the customer (Henderson et al, 2014; Dorotic et al, 2014; Melnyk & Bijmolt, 2014). Dorotic et al (2014) display that those customers who redeem, even a mere fraction of their accumulated rewards, are more inclined to exhibit a greater propensity to increase their average spend and frequency of purchases. Whilst the study by Dorotic et al (2014) revealed that companies should actively encourage customers to

redeem their rewards as this increases the customers' engagement with the loyalty programme, loyalty programme practitioners measure efficacy of the loyalty programme through metrics such as spend (Dawes et al, 2015) and frequency (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), generally promoting messaging on hard, monetary benefits, without consideration for the impact of redemption messaging to promote the efficacy of the loyalty programme (Dorotic et al, 2014).

Member engagement managers would typically communicate programme benefits to their members regarding exclusive promotions or campaigns targeted at the loyalty programme member only, however, in the framework of member engagement, there is certainty in failing or missing to communicate with target customers potentially due to the absence of contact details for customers or some customers basically not consenting to marketing communications (Dorotic et al, 2014). The question that ponders on the mind of the researcher of the present study centers on the efficacy in the reach of communications to customers and the percentage of customers who are excluded from segmented and targeted communications. On the other end of the spectrum, outside of the target customers, is the unexploited perception of the untargeted customer in the context of how they are impacted or how they influence purchase decisions (Steinhoff & Palmatier, 2014; Thompson, Gooner and Kim, 2015). At this juxtaposition, the researcher questions the power of these untargeted customers and the power that these untargeted customers potentially yield in promoting loyalty, spend levels, frequency and assist in curbing the polygamous loyalty that acts as an antagonist to loyalty programmes.

From this interjection, the enquiry that is propositioned is whether the existing one to one member engagement approaches of loyalty programme practitioners curtail polygamous loyalty. On the one spectrum you have the problematic data to ensure that all customers are communicated with and well-informed of the loyalty programme benefits awarded to them, however, on the other continuum, it may not necessarily be the message that is communication to the targeted audience but rather the recipient of the messages. Attentive of the one on one relationship with loyalty programme practitioners and members, measures of success of communications are typically aligned with the measurement metrics used to measure efficacy of a loyalty programme and as such it is questioned whether the target audience is influenced adequately to change his or her behaviour (behaviour in the context of increased spend, increased frequency, increased switching barriers and subsequently reduced polygamous loyalty). With emphasis on the influence of communications, expectedly, a call for loyalty programmes to form more resilient emotional or affective bonds with consumers through social aspects such as inclusion of community or amplify perceptions of overall value has been postulated as a forward-thinking approach (Kang et al, 2015).

Drawing on the assessment by Kang et al, 2015; is the concept of cross-customer effect and bystander effect in retail shopping environments. The study by Steinhoff & Palmatier (2014); explored the impact of bystander effects on customers purchasing behaviour and displayed that the purchase decisions made by customers are highly influenced by those who accompany them to the store. As mentioned in the previous section, a bystander is an individual who is present at an event but does not necessarily participate in said event (Steinhoff & Palmatier, 2014; Thompson et al, 2015). Retailers have started realizing the impact of bystanders in the shopping experience to impact the customer decision making process and have as a result started engaging with bystanders in the shopping experience (Steinhoff & Palmatier, 2014). The bystander effect can be explained as the occurrence of an influencer on a customer/s purchase behaviour, whether that be negative or positive, within and during the shopping environment (Steinhoff & Palmatier, 2014; Thompson et al, 2015). Derived from the bystander effect is the cross-customer effect marketing approach which put modestly, is a differentiated marketing approach for retailers who strive to build and retain long-term loyalty with its targeted customer via a direct (i.e. constituents who make up the buying center at home, pre-shopping environment) or indirect influencer (i.e. a bystander) (Henderson et al, 2011; Henderson et al, 2014; Steinhoff & Palmatier, 2014). A cross-customer approach is explained as the communication by loyalty programme practitioners to target customers through their most influential equivalents (Henderson et al, 2011; Henderson et al, 2014). These influential equivalents can be one or more of the following relationships: spouse, children, work colleagues, family or friends, both inside and outside of the shopping environment (Henderson et al, 2011; Henderson et al, 2014; Steinhoff & Palmatier, 2014). The ability of influential equivalents to bring about change in the loyalty programme members behaviour is termed the cross-customer effect. In a nutshell, a cross-customer effect approach can be defined as the pursuing of the influencing agents of identified target customers (Henderson et al, 2011; Henderson et al, 2014; Steinhoff & Palmatier, 2014); with the propensity to stimulate true loyalty to the retailer, measured against a reduction in polygamous loyalty.

With polygamous loyalty remaining largely unaddressed by the traditional loyalty programme methodologies, a cross-customer approach in support of Kang et al, 2014 is posited in delivering differentiation in loyalty programmes with success being measured against the traditional metrics of repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), increase in basket size (Dawes et al, 2015) and a reduction in divided loyalty (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), with a higher propensity to be less sensitive to competitor promotions (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014) – the paramount focus being on curbing the effects of polygamous loyalty.

Cross-customer effect

Henderson et al (2011) displayed that whilst past research has showed that customers appreciate shopping with other people (not necessarily within the context of family influence), the influence on purchase behaviour to act as a “loyalty-enhancing relational mechanism” (Henderson et al, 2011 p. 257) consequent from shopping with others, necessitates greater insight (Henderson et al, 2011; Bijmolt & Melnyk, 2015; Palmatier & Steinhoff, 2014). Further to this, Palmatier & Steinhoff (2014) highlighted that the effects of cross-customer to stimulate programmes success is under-researched.

With due consideration to the notions of bystander effect and cross-customer effect (Henderson et al, 2011; Henderson et al, 2014; Steinhoff & Palmatier, 2014; Zhang, Li, Burke & Leykin, 2014; Thompson et al, 2015) within the context of the buying center which is typically the family decision making unit of the household of a customer, identifying the best influential agent to promote a reduction in polygamous loyalty is a contentious topic. Growing in the marketplace is the short-term child-targeted loyalty programmes that have been applied by retailers to stimulate an increase in spend levels, purchase frequency and an increase in switching barriers. The one on one premise of the majority of loyalty programmes in which the main member is the benefactor of rewards contends with this child-targeted loyalty programmes which are tactical and short-termed in operation, with a very clear intent on the part of the retailer – targeting the child to influence parents (and even other close relatives) to shop where the benefit is realized by the child and not necessarily the parent or other close relative (Boland, Connell & Erickson, 2012; Sit & Birch, 2014; Zhang et al, 2014).

In probing the influence of children as a key part of the buying center, within the buying or shopping environment (framed within the bystander effect and cross-customer effect concept) and at home (framed within the concept of cross-customer effect), the study to be conducted posits that children as a cross-customer effect approach has the propensity to solve for polygamous loyalty. As such, an analysis into the influence of children on their parents purchase behaviour is presented below, their influencing tactics and the propensity for this untargeted customer to provide differentiation in loyalty programmes with the intent of decreasing polygamous loyalty.

The marketing to children

The growth in the size of the child market (Berey & Pollay, 1968; Haryanto, Moutinho & Coelho, 2016), the evident power of children to influence family decision making (Berey & Pollay, 1968; Mau, Schramm-Klein & Reisch, 2014; Bradley & Nadeau, 2012; Haryanto et al, 2016), the consumption of products by children which act as an antecedent of adult consumer behaviour (Berey & Pollay, 1968; Haryanto et al, 2016; Calderon, Ayala, Elder,

Belch, Castro, Weibel and Pickrel, 2017) and the presence of disposable income that children have available having increased over recent years (Mau et al, 2014), has unsurprisingly ignited an increase in understanding the role of children in the market place (Berey & Pollay, 1968). Berey and Pollay (1968) were one of the founding researchers to explore the influential role of children in their propensity to influence family decision making. Further studies since 1968 have exhibited that the buying power of children exerted in family decision making has intensified and grown over the years (Boland, Connell, & Erickson, 2012; Haryanto et al, 2016).

The children's market offers three opportunities: 1) identification of children as end-users; 2) gaging their ability to act as influencers in the lives of peers, parents or even upon their own behaviour; and 3) their future market potential (Haryanto, Moutinho & Coelho, 2016). In contrast to previous generations, children today are more experienced, connected and superiorly informed about the shopping process, increasing their influential power and inevitably their ability to exert greater influence on the purchase behaviour in the family unit (Berey & Pollay, 1968; Flurry & Burns, 2005; Sharma and Sonwaney, 2014; Anitha & Mohan, 2016; Calderon et al, 2017). Companies target children or attach their brands to children as a means to promote loyalty to the brand (Mau et al, 2014; Haryanto et al, 2016) resulting in future income flows (Sharp & Sharp, 1997; Kumar & Reinartz, 2016). With future income flows being the intentional objective of loyalty programme inducement (Sharp & Sharp, 1997; Kumar & Reinartz, 2016); and it is perceived by business that child-targeted marketing approaches act as an antecedent of loyalty, securing future income flows – then why has the two marketing stratagems not been amalgamated into an all-inclusive proposition? Conscious of the representative power of children in the buying center (Berey & Pollay, 1968; Haryanto et al, 2016; Calderon, Ayala, Elder, Belch, Castro, Weibel and Pickrel, 2017), the question that is postulated is in understanding why children have, to the larger extent, been excluded in loyalty programme designs and benefit awarding on an ongoing, consistent and regular basis as opposed to the short-term tactical child-targeted programmes.

This growing-in-influence market crafts a new model of the family decision making process or buying center, requiring marketers, specifically marketers of loyalty programmes, to establish and extend their connection to include marketing to children as a precursor (Berey & Pollay, 1968; Haryanto et al, 2016; Calderon et al, 2017) to influencing 'true' loyalty as measured through a reduction in polygamous loyalty. The design of loyalty programmes need to similarly embrace propositions that are aimed at rewarding children as a predecessor of encouraging loyalty with the parents and potentially extended relatives of said children, with whom the power of currency exchange lies with.

The marketing to children is unique in that the spend incurred from children in the market is not that of theirs but that of their parents (Berey & Pollay, 1968; Haryanto et al, 2016; Calderon et al, 2017). In simplified terms – children influence spend, however, the spend is not from their own pockets but from their parents. The intensification of changes in lifestyles as represented by changing income, education levels and a growth in single parent families have impacted the approach that parents have adopted in recent child rearing practices (Ulger & Ulger, 2012; Sharma & Sonwaney, 2015; Calderon et al, 2017). As a result, the maturity of children in the modern market to act as consumers has heightened the awareness of the participation and opinions of children in the purchase decision making process (Berey & Pollay, 1968; Bradley & Nadeau, 2012; Cai, Zhao & He, 2015; Haryanto et al, 2016; Calderon et al, 2017).

Persisting with the exploratory influence of children on their parents purchase behaviour stems the model of consumer socialisation (Bradley & Nadeau, 2012; Sharma & Sonwaney, 2015; Calderon et al, 2017). Consumer socialisation makes reference to the manner in which children learn about things, as aligned with their cognitive development (Bezaz, 2014; Bradley & Nadeau, 2012; Sharma & Sonwaney, 2015; Calderon et al, 2017). For an enhanced appreciation for the influence of children on parents purchase behaviour, a brief insight into consumer socialisation is looked over in understanding who mimics who to posit the antecedent for reverse socialisation.

Consumer socialisation

Consumer socialisation defined as “the process by which young people acquire skills knowledge and attitudes relevant to their effective functioning as consumers in the place” (Sharma & Sonwaney, 2014 p. 39.) is divided into four different sets of cognitive structures (Sharma & Sonwaney, 2014; Calderon et al, 2017), in accordance with the Piaget Theory of Cognitive Development, however, cognizant of the present study hypothesized, the focus is on the influencing degree of children aged between 7 - 11 years of age. This age group in accordance with Piaget’s Theory of Cognitive Development is the analytical stage (Mau et al, 2014) reflective of “emerging strategies” (Bradley & Nadeau 2012 p. 106) whereby Piaget identifies this as the concrete operational period (Mau et al, 2014; Michael, Schuhen, Steinmann & Schramm-Klein, 2016; Sharma & Sonwaney, 2014).

Socialisation agents such as parents, peers, media, retailers, brands, schools and products with their varied packaging styles are acknowledged as the influential sources that transfer attitudes, behaviours, motivations and norms to children (Sharma & Sonwaney, 2014; Mau et al, 2014; Haryanto et al, 2016). A significant social agent which influences the consumer socialisation process is the family (Mau et al, 2014; Sharma & Sonwaney, 2015; Haryanto et

al, 2016; Calderon et al, 2017). When considering the interplay between a child's social identity, formed through social comparisons (the tendency for people to compare themselves to others which act as one means of people forming their social identity), it can be seen that social identity rears itself in the psychological mechanism of status (Haryanto et al, 2016). By becoming involved in the family shopping experience as influences (Mau et al, 2014; Cai et al, 2015; Michael et al, 2016; Calderon et al, 2017), children begin to acquire vital skills as a means to become independent and competent consumers (Michael et al, 2016). Through the observance and learnings derived from their shopping experience with parents, co-shopping is believed to be a key method of socialisation (Haryanto et al, 2016; Calderon et al, 2017). In correlation, research indicates that children in the pre-teen phase (6 – 12 years of age) are more existent in retail shopping environment (Sit & Birch, 2014; Feenstra, De Faultrier & Muzellec, 2015; Michael et al, 2016). Complimentary to this is the growth in popularity of events and workshops of an educational nature targeting children between the ages of 6 – 12 years of age, in retail store environments which have the intention to enhance the customers' in-store shopping experience through the production of "emotionally engaging experiences" (Feenstra et al, 2015). This approach serves as a marketing tool to build family traffic in-store, encouraging customers to spend more time in the store, which exhibits a reciprocal increase in spend and parental loyalty (Sharma & Sonwaney, 2014; Haryanto et al, 2016; Calderon et al, 2017), a process termed reverse socialisation (Haryanto et al, 2016). Such a concept and marketing approach aligns with Kang et al, 2014 and is seen to promote a cross-customer effect approach.

As mentioned in earlier thought, children learn their behaviour from parents through the consumer socialisation process, however, when children influence their parent's behaviour, this is well-thought-out to be reverse socialisation (Haryanto et al, 2016). Reverse socialisation is defined as an exchange in shopping roles in which the child becomes the target in adult consumer learning (Haryanto et al, 2016). Through reverse socialisation, it has been shown that children in the age group of 6 – 12 years of age have influenced store visits and purchase decisions. This has justified the focus on the child in retail environments as parents pay an increased amount of attention to their children's desire, needs and their opinions with an amplified apprehension to afford for their children a large number of alternatives (Sit & Birch, 2014; Feenstra et al, 2015). The positive influence of "fun power" of children on parents purchase behaviour, still poses challenges on retailers to create a bond with the child beyond the in-store experience (Feenstra et al, 2015). The absence of the theoretical definition of "fun power" for children to serve as an influencing strategy on parents purchase behaviour and store loyalty is one that however requires further research (Feenstra et al, 2015). Within the context of propositional loyalty programmes design, it becomes progressively evident that there is more than one way to leverage on the influencing power harnessed by children to induce customer loyalty in their parents purchase

behaviour – other than through in-store experience. At this point, the imminent need to embrace children into the design of loyalty programmes to deliver on the measures of success becomes increasingly apparent. Children are no longer inactive bystanders in markets and display rising economic power to increase spend (Berey & Pollay, 1968; Mau, Schramm-Klein & Reisch, 2014; Bradley & Nadeau, 2012; Sharma & Sonwaney, 2014; Sit & Birch, 2014; Feenstra et al, 2015; Haryanto et al, 2016; Calderon et al, 2017).

In positing the inclusion of children in loyalty programmes designs as a means of curbing polygamous loyalty, it is correspondingly significant to acknowledge that the positive perceptions held by children of retail stores diminish with age, whilst their skill set and knowledge increase as consumers (Boland et al, 2012; Sharma & Sonwaney, 2014; Feenstra et al, 2015; Michael et al. 2016). Their awareness of manipulative tactics imposed on consumers by brands and retailers permit them to develop critical insight on consumption (Boland et al, 2012; Mau et al, 2014). In perspective, loyalty programmes practitioners consequently need to be conscious of the lifecycle attractiveness of child-targeted benefits and ought to feasibly tailor child-targeted benefits by age. Nonetheless, whilst the consumer learning curve enables children to become more demanding in nature and knowledgeable of the consumer market, shopping is still considered enjoyable and one of their favourite pastimes (Feenstra et al, 2015; Mau et al, 2016).

Reverse socialisation demonstrates the influence of children on their parents (Haryanto et al, 2016), and draws on the concept of intergenerational influence (Cai, Zhao and He, 2015). Sharma and Sonwaney (2014), term this reverse socialisation as re-socialisation, which implies the same as reverse socialisation. Intergenerational influence is best described as the influence that one generation has within the family for the purpose of transferring beliefs, information, preferences, attitudes, skills, values and behaviour (Cai et al, 2015). With a clearer perspective being gained on the propensity for children to influence their parents purchase behaviour, the conundrum that resides in the mind of the researcher of the present study is that if children are socialized by their parents, then by what means; does the process of reverse socialisation occur?

The influence of children – a social power phenomenon

Intergenerational influence communications and the increased amount of attention shown by parents to their children's desire, needs and their opinions (Cai et al, 2015); correlates with the views of extant literature that demonstrates that children exert influence on purchasing behaviour through their social power (Flurry & Burns, 2005; Bradley & Nadeau, 2012; Calderon et al, 2017), whether known or unknown to the parent (Flurry & Burns, 2005). Social power theory is consequently theorized as the conceptual framework adopted in understanding the influence of children in the family buying center (Flurry & Burns, 2005).

Social power acts as a tool that people use as a means of exerting influence over others (Flurry & Burns, 2005). In context, power refers to the capacity that children have to influence the behaviour of the parent such that the parent acts in the preferred manner of the child (Bradley & Nadeau, 2012). The study conducted by Flurry and Burns (2005) found that children are aware of their social power bases in conjunction with their power resources (expert power, legitimate power, referent power, reward power and coercive power) to exert influence in their desired outcome.

Antecedents of power are:

- Structural factors such as both parents in the home, single parent homes or step and half siblings (Rucker, Galinsky, & Dubois, 2011; Sharma & Sonwaney, 2014);
- Cognitive factors such as past experiences inculcate a level of habitual behaviour (Rucker, Galinsky, & Dubois, 2011; Sharma & Sonwaney, 2014);
- Physical factors such as physical position (i.e. ranking in the family, age, location) (Rucker, Galinsky, & Dubois, 2011; Sharma & Sonwaney, 2014; Anitha & Mohan, 2016);

Bradley and Nadeau (2012) identify “nine different direct influence attempt dimensions ask nicely, display anger, bargain, show affection, beg and plead, just ask, show anger, cry or pout, and con” (Bradley & Nadeau, 2012; Calderon et al, 2017, Sharma and Sonwaney, 2014). Apart from the positive and negative influencing strategies adopted as part of the social power that children exert to influence behaviour, studies reflect a notable difference between active (manipulative) and passive (measured) social power and their influence on parents (Flurry & Burns, 2005). Active social power is the influence that children knowingly exert (direct influence), whereas passive social power is exertion of influence unknowingly (indirect influence) (Flurry & Burns, 2005). Studies (Flurry & Burns, 2005; Bradley & Nadeau, 2012; Calderon et al, 2017) show that children that display active social power are more likely to yield positive results in influencing outcomes. Contrasted against parents, a parent’s knowledge of the child’s active or passive social power influence is not a determining factor, as is the positive or negative influencing strategy that the child employs to exert influence (Flurry & Burns, 2005; Rucker et al, 2011; Bradley & Nadeau, 2012; Calderon et al, 2017).

In advancing the agenda of reverse socialisation, children use one or more of the five power bases as a resource to exert influence over parents:

Expert power which is the degree of perceived knowledge that a child can contribute in influencing the family buying center on a particular subject (Flurry & Burns, 2005; Goodrich & Mangelburg, 2010; Rucker et al, 2011; Bradley & Nadeau, 2012), by way of an

intergenerational influence exerted by the child based on past experiences, social influences and/or exposure to marketing on products and services. Research shows that parents are open to children interacting with them in aiding the decision making process as they consider the knowledge and information that children possess to be of benefit to the purchase decision (Bradley & Nadeau, 2012; Sharma & Sonwaney, 2015; Calderon et al, 2017).

Buying habituation is regarded as past purchase experiences supporting the final decision of customers (Kumar & Reinartz, 2016). Habit as earlier identified is one of the psychological mechanisms used to stimulate customer loyalty (Henderson et al, 2011; Wood & Neal, 2009; Lui-Thompkins & Tam, 2013; Henderson, Palmatier & Steinhoff, 2014; Bijmolt & Melnyk, 2015; Alejandro et al, 2015). Studies (Sharma and Sonwaney, 2014; Calderon et al, 2017) reflect that through the consumer socialisation process, children form habits from their past experiences, such as co-shopping with their parents (Haryanto et al, 2016; Calderon et al, 2017), and as a result a child tends to become more accustomed to retailers as preferred by their parents (Sharma and Sonwaney, 2014; Calderon et al, 2017). On the contrary, it is posited that reverse socialisation enables children to influence where their parents shop and the frequency of purchases by their parents through their expert power (Sharma and Sonwaney, 2014; Haryanto et al, 2016), thereby enhancing customer loyalty through a decline in polygamous loyalty. Kumar and Reinartz (2016) acknowledge the value of customer knowledge and identifies that knowledge contributors can be information providers. The hypotheses that had been scoped to measure the degree of influence a child's expert power has in positively influencing their parents purchase behaviour in loyalty programmes are:

H1a: A child who has more knowledge about a loyalty programme as perceived by the parent, increases repeat patronage when the child is within the shopping environment

H1b: A child who has more knowledge about a loyalty programme as perceived by the parent, increases repeat patronage when the child is outside of the shopping environment

Legitimate power; the superficial right that a child enacts to exert influence (Flurry & Burns, 2005; Goodrich & Mangelburg, 2010; Rucker et al, 2011; Bradley & Nadeau, 2012) lends on the perception of children exerting this type of influencing strategy rating their positional influence within the family decision making process as relatively high (Sharma & Sonwaney, 2014; Haryanto et al, 2016). In context, children are of the notion that they have the right to ask, demand or receive what they wish to have and this type of power can often resonate with negative influencing strategies such as pestering, crying, pouting or displaying anger (Bradley & Nadeau, 2012; Anitha & Mohan, 2016).

The hypotheses that had been scoped to measure the degree of influence a child's legitimate power has in positively influencing their parents purchase behaviour in loyalty programmes are:

H2a: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is within the shopping environment

H2b: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is outside of the shopping environment

Referent power which is the power that is linked to status is the power base that a child exerts based on their perceived level of influence in the family decision making process in their ability to command the desired behaviour (Rucker et al, 2011). Apart from the perceived level of influence as a derivative of their status, it can also be the degree with which a child wishes to identify with (Flurry & Burns, 2005; Goodrich & Mangleburg, 2010). Children influence their parents through the exercising of their referent power as it resonates with their social identity, formed through social comparison (Haryanto et al, 2016). Influencing strategies that stem from a referent power base are generally positive in nature such as ask nicely or just ask (Bradley and Nadeau, 2012; Calderon et al, 2017; Sharma and Sonwaney, 2014) possibly owing to the view of the child that he/she can command a preferred outcome (Calderon et al, 2017).

The hypotheses that had been scoped to measure the degree of influence a child's referent power has in positively influencing their parents purchase behaviour in loyalty programmes are:

H3a: The effectiveness of communicating rewards scheme benefits to a child are only effective to the parent's perceived degree of the child's referent power, when the child is within the shopping environment

H3b: The effectiveness of communicating rewards scheme benefits to a child are only effective to the parent's perceived degree of the child's referent power when the child is outside of the shopping environment

Reward power is associated with the awarding of a benefit for conformance or withholding of a benefit, in the case of non-conformance, dependent on the parent's conformism to the child's preference (Flurry & Burns, 2005; Goodrich & Mangleburg, 2010; Rucker et al, 2011). This type of power can be seen as an exchange of "goods" in that children exhibiting this type of power is likely to promise their parent to undertake a task which the parent has asked of them but which they do not want to do, in exchange for what the desire (Rucker et al, 2011). Arguably, the influencing strategy adopted stumbles on the side of deceptive negotiating tactics and can be construed as a negative influencing strategy in exerting influence on parents purchasing behaviour (Flurry & Burns, 2005; Rucker et al, 2011) and therefore may not positively promote a cross-customer effect in reducing polygamous loyalty. Conflicting with this notion is the effect of changing lifestyles and parents being more mindful of their children's desires.

The hypotheses that had been scoped to measure the degree of influence a child's reward power has in positively influencing their parents purchase behaviour in loyalty programmes are:

H4a: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is within the shopping environment

H4b: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is outside of the shopping environment

Coercive power, considered a strong-arm approach in which punishment is expected to be the result for not complying with what the child's desired request (Flurry & Burns, 2005; Dubois, Galinsky & Rucker, 2011) adopts negative influencing strategies such as pestering, anger and crying (Berey & Pollay, 1968; Ulger B & Ulger G, 2012). Whilst studies reveal that parents are less receptive to negative influencing strategies (Berey & Pollay, 1968; Ulger B & Ulger G, 2012), the change in lifestyles such as longer working hours, more women working and increased co-shopping (Sharma and Sonwaney, 2014, Haryanto et al, 2016) adds complexity to this bargaining power in that parents are likely to conform to the child's request as a means to limit the time spent in-store and the emotional strain on the shopping experience. The hypotheses that had been scoped to measure the degree of influence a child's coercive power has in positively influencing their parents purchase behaviour in loyalty programmes is:

H5a: If a child's coercive power is high, as perceived by the parent, and the child sees benefit in the reward scheme, the parent is likely to comply when the child is within the shopping environment

H5b: If a child's coercive power is high, as perceived by the parent, and the child sees benefit in the reward scheme, the parent is likely to comply when the child is outside of the shopping environment

When considering the power exerted by children to influence their parents purchase behaviour, it is important to recognize that there are two distinctive modes of IG communications within a family:

1. IG conversation which tends to be general and informal discussions between children and parents. Such conversations are characteristically spontaneous in nature and the intent is not to induce purchase behaviour (Cai et al, 2015), however, Flurry and Burns (2005) argue that such conversations can be depictive of passive power; and
2. IG recommendations that tend to be less opulent in the exchange of information shared and the intent is stereotypically to endorse a product or service without the need of an explanation. This could be deliberated to be the application of expert or legitimate power.

In testing the alternative to reverse socialisation a hypothesis is designed to test the propensity for a cross-customer effect having any significance on how parents engage with loyalty programmes:

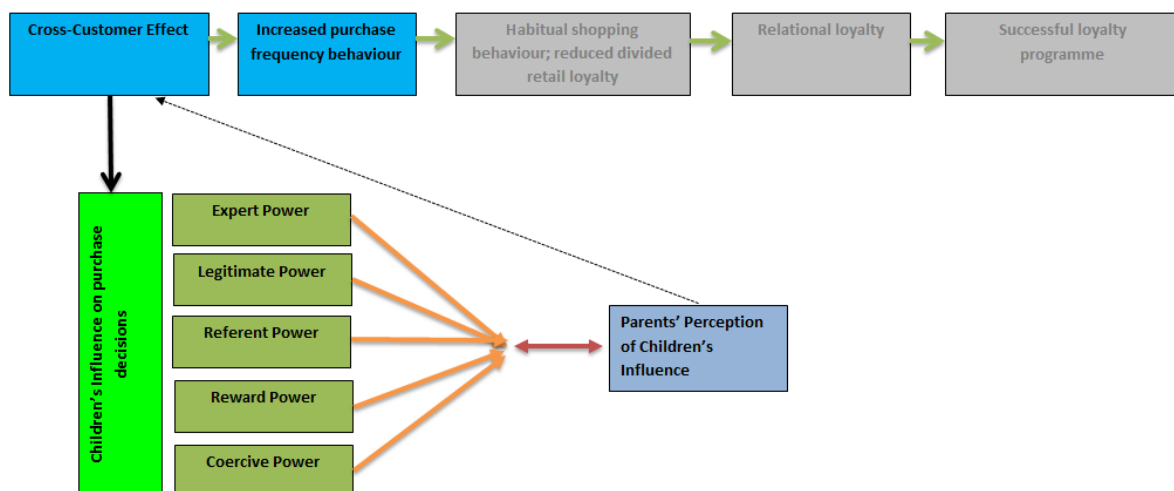
H6: Parents prefer to shop more often at shops with a rewards scheme that offers individual rewards schemes

In view of the literature on loyalty programmes, their designs and arguable effectiveness being presented in this chapter; it is assumed that was presented on applied loyalty programmes solutions, fail to move beyond the individual, one to one member engagement, to create a notable dent in addressing the issue of polygamous loyalty. Built upon the view that extant research fails to draw on the linkages between child influences on parents purchase behaviour and its potential interplay for loyalty programmes; the use of social power theory is positioned to facilitate the hypothesizing of cross-customer marketing as an enhancer of customer loyalty within the loyalty programme framework. It is posited that loyalty programmes which move beyond the individual member, with benefits aimed at children, have the propensity to stimulate 'true' loyalty as measured by a reduction in polygamous loyalty.

Conceptual model of children's influence in reducing polygamous loyalty through differentiated loyalty

The overarching proposition that is being tested is the propensity for children to act as a differentiator for loyalty programmes in mitigating polygamous loyalty through their influence on their parents purchase behaviour. The six hypotheses developed tests whether a cross-customer effect (Henderson et al, 2011) within the borders of social power theory (Flurry & Burns, 2005; Goodrich & Mangleburg, 2011) would act as a differentiator for loyalty programmes. For the purposes of this study, cross-customer effect is measured in terms of the influencing effect that children have on their parents purchase frequency in promoting effective loyalty, as measured through the lens of repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Kumar et al, 2013; Dawes, Driesener & Meyer-Waarden, 2015; Hu et al, 2014). Mindful of this, the present-day study postulates to establish the following conceptual model of children's influence in loyalty programmes:

Figure 1: Conceptual model of children's influence in loyalty programmes



The model depicted in Figure 1 that has been formulated and is to be tested in the study, aims to display that a cross-customer effect approach engaged in the targeting of children has the propensity to drive habitual purchasing behaviour amongst shoppers (Henderson et al, 2011). The influence attempts of children as covered by the five power bases are dependent on the parents' perception of their children's influence (Flurry & Burns, 2005) on their shopping behaviour in order to positively translate into habitual shopping behaviour (Wood & Neal, 2009). It is important to note that the testing of the child's influencing power on parent's habitual shopping behaviour is not addressed in this study; but that cross-customer effect is the focal point of the study intent. On the assumption that the inclusion of children in loyalty programmes will positively influence parents shopping behaviour and act as a protagonist for loyalty programmes, it is projected in the above conceptual model that

there will be an increase in purchase frequency. What is not tested in the current study, but conceptualised in the model above is that over time, the habitual purchasing behaviour, as a result of the parent's perception of the child's influencing powers, could possibly translate into a reduction in divided loyalty (Henderson et al, 2011) amongst retailers thereby displaying the psychological mechanism of relational loyalty (Henderson et al, 2011; Henderson, Palmatier & Steinhoff, 2014; Kang et al, 2015). In reducing polygamous loyalty (Hu et al, 2014), a loyalty programme is considered to be successful in its ability to increase customer retention and in ensuring future annuity income (Sharp & Sharp, 1997; Kumar & Reinartz, 2016).

Whilst studies reveal the influence that children have on their parents purchase behaviour, the body of research lacks to identify a child's influence to drive loyalty for retailers, thereby, acting as an agent of inducing loyalty.

With the scene being set in context of the current play in loyalty programmes; their failure to curb polygamous loyalty and the failure of loyalty programmes practitioners to extend beyond the individual customer, in so doing, arguably missing the mark to engage with the influencing populace in and around that customer – the overarching proposition is tested and measured. A look into the research methodology process taken to facilitate the study is presented in the foregoing readings of this study. The outcome from the research process is the informing of the statistical representation of participants feedback to cater for testing and measurement of the designed hypotheses. The findings are wrapped up within the context of literature, with a highlight on implications for business, limitations of the study and a conclusion concluding this report.

Chapter 3

Research Methodology

The research design applied in the study is presented in supporting the study objectives hypothesised in the previous chapter. An overview of the approaches adopted inclusive of the reasons as to why such a method was adopted is presented and defended in the ensuing section.

Choice of methodology

Philosophy

The social science construct, social power theory, was the theoretical framework that will be used to investigate the influence of children in family decision making in their propensity to act as a differentiator for loyalty programmes. Given that social sciences construct forms the basis of the study an interpretivism study is the fit for purpose philosophy. Interpretivism is considered to be a social science approach that takes into consideration the differences in human behaviour in a social context (Lewis & Saunders, 2012).

Approach

Given that social power constructs were used in framing the hypotheses to test the propensity for children to mitigate polygamous loyalty for loyalty programmes as displayed in their parents, a deductive approach has been adopted. A deductive approach is often referred to as the “top-down” approach, as it is considered the testing of theory (Gabriel, 2013).

The research intent was to gauge whether children as a cross-customer effect approach have the propensity to promote ‘true’ loyalty in influencing their parents purchase behaviour. Therefore the research design depicts an explanatory study, which is an attempt to connect ideas with the objective of understanding the cause and effect (Lewis and Saunders, 2012). The study focused on the parents and not the children.

Strategy

The study investigated the propensity of targeting children as a cross-customer effect marketing strategy for the purposes of a differentiated loyalty programme. Using the Flurry and Burns (2005) and Goodrich and Mangleburg (2010) strategy, primary data will be collected through the use of questionnaires. Given that this was the adopted research strategy, it is duly observed that the research is of a quantitative and descriptive nature,

which is defined as an analysis which seeks to “describe accurately persons, events or situations” (Lewis and Saunders, 2012, p. 111).

A quantitative, explanatory study was conducted for the purpose of addressing the hypotheses. There is a need to look for an explanation behind a particular occurrence through the discovery of relationships between key variables. Owing to this, the method used is attitude surveys. The hypotheses developed tests whether a cross-customer effect (Henderson et al, 2011) within the borders of social power theory (Flurry & Burns, 2005) would act as a differentiator for loyalty programmes.

This is further elaborated in the “Measurement Instrument” section.

Choices

A mono-method research approach was used, which is by definition: only one type of method, one quantitative or one qualitative (Saunders & Lewis, 2012). In alignment with the survey strategy design, primary quantitative data formed the basis for the study. The details of this are further elaborated upon in the “Data gathering process” section.

Time Horizon

A cross-sectional study is a study that is conducted at a point in time (Saunders & Lewis, 2012). Constructed on the limitation of time for the study, the measurements were taken in a specific point in time, thus the time horizon has been identified as cross-sectional.

Technique and Procedures

Survey methods accentuated measurements and the statistical, mathematical, or numerical analysis of data collected through surveys, polls and questionnaires alike (Kumar, Pozza, & Ganesh, Revisiting the satisfaction-loyalty relationship: Empirical generalizations and directions for future research, 2013). As mentioned earlier in the “Data gathering process” section, a quantitative technique supported a descriptive research that employed a survey strategy.

Population

The survey population is defined as that of parents who have children between the ages of 7 – 11 years of age and who are active participants of individual rewards schemes such as Pick ‘n Pay Smart Shopper and Woolworths WRewards and/or child-targeted rewards schemes such as the Checkers Little Brands campaign. This age group was identified in accordance with Piaget’s Theory of Cognitive Development which characterizes this age

group as the concrete operational period, characterized as a chief milestone in a child's cognitive development (Mau et al, 2014; Michael, Schuhen, Steinmann & Schramm-Klein, 2016; Sharma & Sonwaney, 2014). This developmental stage signifies the start of operational or logical thought which simply implies that a child is able to mentally apply themselves in thought prior to acting out as opposed to having to tangibly attempt things in the existent world (Mau et al, 2014; Michael, Schuhen, Steinmann & Schramm-Klein, 2016). Studies by the likes of Flurry and Burns (2005) and Bradley and Nadeau (2012) identify this age group as adaptive decision makers, with the inclination to employ influencing tactics with the objective of negotiating for desired outcomes. Feenstra, de Faultrier and Muzellec (2015) equally indicate that children in the pre-teen phase are also more existent in retail shopping environments.

This study centering on the influence of children aged between 7 – 11 years of age on their parents purchase behaviour explores the influence of children in the family buying center at home and in the physical buying situation. Only valid questionnaires will be used for the study. Validity for this study is defined as:

1. Parents who have children between the ages of 7 – 11 years of age; and
2. Respondents who actively participate in rewards schemes

Unit of analysis

The unit of analysis refers to who or what is being analysed in the study (Lewis & Saunders, 2012). The unit of analysis is in the field of marketing, specifically, loyalty programmes and explores the influence of children on their parents purchase behaviour, through a cross-customer effect approach to mitigate polygamous loyalty. This unit of analysis is represented by parents who has children between the ages of 7 – 11 years of age and who actively participate in individual targeted and/or child-targeted rewards schemes

Sampling method and size

Primary data via non-probability, convenience sampling was the data gathering process adopted for the study. Aligned with the survey population, the sample unit for the study is; parents who have children between the ages of 7 – 11 years of age who are enrolled in Grade 1 – 6 within public schools located in the in the select North Eastern parts of Gauteng. Complementary to this, the parents need to also be active participants of individual rewards schemes such as Pick n Pay Smart Shopper, Woolworths WRewards, and/or child targeted rewards schemes such as the Checkers Little Brands campaign.

The area was selected due to locational proximity and ease of access to the schools. Two sampling units are to be used in this study:

1. Public schools in the North East parts of Gauteng namely, Hurlyvale Primary School, Eastleigh Primary School, Edenglen Primary School, Bedfordview Primary School

and MW De Wet Primary School; and

2. The parents within the school of learners aged between 7 – 11 years of age. The age of the children define the class selection (i.e. Grade 1 – Grade 6) as per the guidelines governed by the South African Schools Act, 1996 (Act No. 84 Of 1996) and National Education (Education, 1998)

As such, a two stage sampling support was identified for the study:

1. Stage 1: The school – parents of children in the required age group will be recruited through the schools that their children attend and the schools were selected on a convenience basis
2. Stage 2: once the school is selected, a convenience sampling of learner parents will be undertaken

The preference for the adoption of this type of sampling method is as reinforced by other studies in the area of children (Flurry and Burns, 2005 & Goodrich and Mangleburg, 2010).

The maximum sample size for this study was set at 600.

Measurement instrument

Saunders and Lewis (2015) advocate that one of the approaches usually used in descriptive research is questionnaire. Pilot testing was to be conducted for the purposes of revealing any glitches in the measurement instrument and/or research methods employed, with the aim of addressing them before the main study is carried out (Gass & Mackay, 2015). It is planned that the pilot testing will be facilitated through electronic questionnaires, whereby usable questionnaires will be subjected to statistical inferential analysis.

Appendix A is the questionnaire which has been adapted from the Flurry and Burns (2005) and Goodrich and Mangleburg (2010) study. In addition, a question from the AMPS 2015 questionnaire (Haupt, 2012) was used to measure patronage as a variable outcome in testing the propensity for children to mitigate polygamous consumer behaviour through a cross-customer effect approach in loyalty programmes. The scale development used in this survey is that of a 7-point Likert scale which has been used in the Flurry and Burns (2005) study and supported in the Goodrich and Mangleburg (2010) study. The below table, Table 1, displays the source of each question as well as their Coefficient Alpha's (Flurry & Burns, 2005) A coefficient alpha is a statistical measure of internal consistency (Flurry & Burns, 2005):

Table 1: Questionnaire design
Expert Power constructs

Source	Question from source survey	Adapted question for this study (scale items)	Coefficient Alpha measure (against positive and negative influences)
Goodrich and Mangleburg (2010)	"My parents know best about purchasing this type of product"	My child knows best about these reward schemes	0.72
Goodrich and Mangleburg (2010)	"My parents have a lot of experience with this type of product"	My child has a lot of experience with this reward scheme	0.80
Goodrich and Mangleburg (2010)	"My parents know more about this type of product than other people do"	My child knows more about this rewards scheme than I do	0.87

Legitimate Power constructs

Source	Question from source survey	Adapted question for this study (scale items)	Coefficient Alpha measure (against positive and negative influences)
Flurry and Burns (2005)	"My child has the right to influence me when I make purchase decisions"	My child has the right to influence me when I make purchase decisions	0.71
Goodrich and Mangleburg (2010)	"My parents should be involved in what products I buy"	My child should be involved in where I shop	0.78
Goodrich and Mangleburg (2010)	"I should accept my parents' recommendations on what products to buy"	I should accept my child's recommendations on where I shop	0.66

Referent Power constructs

Source	Question from source survey	Adapted question for this study (scale items)	Coefficient Alpha measure (against positive and negative influences)
Flurry and Burns (2005)	"My child's feelings influence what I will buy"	My child's feelings influence where I shop	0.78
Goodrich and Mangleburg (2010)	"My parents can make me feel valued when I buy products they like"	My child feels valued when I shop where he or she prefers	0.80
Goodrich and Mangleburg (2010)	"My parents can make me feel approved when I buy products they like"	My child feels approved when I shop where he or she prefers	0.79

Reward Power constructs

Source	Question from source survey	Adapted question for this study (scale items)	Coefficient Alpha measure (against positive and negative influences)
Flurry and Burns (2005)	"I like to buy what my child wants because he or she may give me something nice for doing it"	I like to shop where my child wants me to shop because he or she may give me something nice for doing it	0.83
Goodrich and Mangleburg (2010)	"My parents can provide me with special benefits if I buy the products they like"	My child can provide me with special benefits if I shop where he or she prefers	0.59
Goodrich and Mangleburg (2010)	"When I bought this product, I thought that my friends might do something for me in return"	When I shop at the place that my child prefers, I think that my child might do something for me in return	0.51

Coercive Power constructs

Source	Question from source survey	Adapted question for this study (scale items)	Coefficient Alpha measure (against positive and negative influences)
Flurry and Burns (2005)	"Sometimes I may buy what my child wants to keep him or her from getting upset"	I may give in and shop where my child wants, to keep him or her from getting upset	0.73
Goodrich and Mangleburg (2010)	"My parents may make things difficult if I don't buy products they like"	My child may make things difficult if I don't shop where he or she prefers	0.65
Goodrich and Mangleburg (2010)	"My friends can make being around them distasteful if I don't buy the products they like"	My child can make being around him or her distasteful if I don't shop where they prefer	0.51

A view of the complete questionnaire can be found in Appendix 2.

With regards to the scales used to measure the constructs from an internal consistency point of view, validity and reliability testing's were conducted.

Validity Testing

The following validity testing measures were applied in the study:

- Face-validity - A Likert rating scale has been used in questions 8 and 9 which reflect the social power bases construct. This use of scale is appropriate as it measures the

attitude of the respondent on the question posed (Wegner, 2016). It is an appropriate scale in context of the proposition being tested, given that it measures the trait of interest, being social power in context of children influencing parents shopping behaviour as driven by rewards schemes. The seven point Likert scale was used based on the Flurry & Burns (2005) study

- Construct validity - Construct validity authenticates the fit of the items used in measuring their corresponding latent constructs (Shuttleworth, 2009). In the present-day study, construct validity was conducted to test whether the items used to measure each of the constructs were fit for purpose. Items that measured <0.7 on their Cronbach Alpha's (Hair, Black, Babin, & Anderson, 2010) and failed composite reliability were removed on the basis of them failing construct validity
- Discriminant validity - measures the patterns of inter-correlations amongst other unrelated latent constructs (Trochim W. , 2009)

Reliability Testing

A Test-retest Reliability (or Stability) test via pilot testing (Saunders & Lewis, 2012) was not conducted due to time constraints on the part of the researcher. Scale reliability was tested using the Cronbach Alpha's based on a score of above 0.7 (Hair, Black, Babin, & Anderson, 2010). These were matched against composite reliability scores which needed to be >0.7 (Hair, Black, Babin, & Anderson, 2010)

Data gathering process

Electronic confirmations following face to face engagement with the following schools were received from the following schools, agreeing to be used as a vehicle for data collection for the current study: Hurlyvale Primary School, Eastleigh Primary School, Edenglen Primary School, Bedfordview Primary School and MW De Wet Primary School. These five schools had agreed to distribute physical questionnaires and provide a link to the online survey via their newsletter or D6 communicator (an online tool that parents sign up for the purpose of staying up to date with events at their child's school). The online survey link was created using Survey Monkey to facilitate the collection of the primary data from the sample unit and for the capturing of completed hardcopy questionnaires.

A self-administered physical questionnaire had been advised by principals as the best method of collecting data. The parent's signatures were not recorded on the questionnaire as this could potentially hamper confidentiality and hence a statement which represents that participation in the survey signals agreement, had been included. The questionnaires received in hardcopy was captured on Survey Monkey as a means of collating the data in a single repository in favour of facilitating coding of the data which is done by Survey Monkey.

This was done as a means of eliminating data capturing errors. A short time-period was afforded to schools and parents as a means of mitigating the risk of non-responses and instilling a sense of urgency in completing the questionnaire.

Analysis approach

For the purposes of the study, the term loyalty programmes had been reflected as rewards scheme in the questionnaire, for the purpose of including Checkers into the analysis which activated a short-term, child-targeted rewards scheme, whereas the other retailers included in the study, centres on the individual, generally the member of the loyalty programme. The results derived from the study using the term rewards scheme is posited to infer to loyalty programmes. In theoretically framing that loyalty programmes need to move away from individual reward schemes to child-targeted reward schemes as a cross-customer effect approach, ten hypotheses had been posited in measuring the propensity for children to mitigate polygamous consumer behaviour through a cross-customer effect approach in loyalty programmes and one hypothesis was designed to measure the effectiveness of loyalty programmes on purchase frequency.

Frequency is identified as the dependent variable in the study with the power bases of children as perceived by the parents being the independent, core variable. Other independent variables included in the study included the age of the child and participation in loyalty programmes. Table 2 below lists the hypotheses for each construct:

Table 2: Construct analysis testing

Construct	Hypothesis	Type of Test
Expert power	H1a: A child who has more knowledge about a loyalty programme, increases repeat patronage when the child is in-situation H1b: A child who has more knowledge about a loyalty programme, increases repeat patronage when they are not in-situation	Regression Analysis

Construct	Hypothesis	Type of Test
Legitimate power	H2a: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is in-situation H2b: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is not in-situation	Regression Analysis

Construct	Hypothesis	Type of Test
Referent power	H3a: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is in-situation H3b: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is not in-situation	Regression Analysis

Construct	Hypothesis	Type of Test
Reward power	H4a: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is in-situation H4b: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is not in-situation	Regression Analysis

Construct	Hypothesis	Type of Test
Coercive power	H5a: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is in-situation H5b: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is not in-situation	Regression Analysis

Construct	Hypothesis	Type of Test
Loyalty	H6: Parents prefer to shop more often at shops with a rewards scheme that offers individual rewards schemes	Regression analysis per store

Limitations

The following limitations are identifiable for the study:

1. The absence of piloting the questionnaire prior to the final collection of data
2. Response bias
 - a. Respondents may feel the need to show control over their shopping behaviour and hence not be truthful about their perceptions on their child's influence on where they shop (Berey & Pollay, 1968; Flurry & Burns, 2005)
3. Sampling method bias
 - a. Only public schools have been used as vehicles for the collection of data
 - b. The five public schools who have agreed to act as a vehicle for the study are located in the North Eastern parts of Gauteng and hence the population may not be representative of the South African market
 - c. Low response rates from parents due to lack of interest and the survey being voluntary
 - d. Respondents might not be in a position to interpret the questions due to level of education
 - e. Incomplete questionnaires due to certain questions not being understood
 - f. The lack of inclusion of demographic traits such as income levels and number of children in the household
 - g. The complexities and multiple influences of loyalty to retail grocery stores – from price to the all-important location, ease of shopping and familiarity (Haryanto et al, 2016)

Chapter 4

Results

In the previous chapter, the research design and methodology adopted for the data collection was stipulated. This chapter seeks to detail the results that were derived and analysed from the responses received. As a start, the preparation of the data including the scoring mechanism, the handling of missing data and the addressing of outliers is presented. The respondent profiles are thereafter presented followed by a demonstration of the results on reliability and validity testing conducted, correlations and the multiple regression testing completed in validating or rejecting the hypotheses

Data cleaning: missing cases

Leading from the data collection technique elaborated on in the previous chapter; 234 questionnaires were obtained from respondents online and a further 331 respondents answers captured physically on the online link, out of a total of +/-1000 physical questionnaires obtained from the five schools. A total of 600 questionnaires were used for the data analysis in applying a quota data collection technique.

Missing values

Hair et al (2010) indicate that the extent of missing values needs to be assessed in the context of the number of missing responses per case (that is, per respondent) and the number of missing question items (that is, the individual question themselves). Contextually, detailed below are the missing data by case and items:

Cases with missing data

The survey link was created with all questions needing to be completed in order for the questionnaire to be marked completed. This was done in an attempt to minimize the amount of missing data; however, there were three cases in which data was missing. The mandatory question marking on the online system was for somehow not enforced on the printed questionnaires handed to parents who had children in Grade 1 – Grade 5 in the five public schools used as the vehicle of data collection. Physical questionnaires that were 10% completed by respondents were used in the manual capturing of the data to reach 600 completed questionnaires. As a rule of thumb, a questionnaire that misses 10% of the required data can be retained, whereas questionnaires in which more than 15% of responses missing are considered applicants for omission (Hair et al, 2010). Missing cases which pertained to the constructs were reviewed in context of what was answered in later

questions, as it could be seen from eye-balling the questionnaires that the responses were missed in oversight.

Questionnaire items with missing data

In spite of the mandatory settings being set on the online survey for all questions, three (0.5%) of the respondents who captured their responses online, did not answer the question on their age. The technique used in addressing missing values in questionnaire items was that of imputation by average (Sauro, 2015; Joseph, 2016). Although the age of the parents is not a highly valued independent variable, the decision was taken by the researcher to infer the mode to the missing values. Since Age_Parent is a categorical variable, the mode was used to impute the missing values. The mode for the variable 'Age_Parent' was +41 years of age since its frequency was the highest in the dataset. All three of the missing data for Age_Parent was labelled as +41 years of age.

With no questionnaire used in the data analysis missing more than 5% of the cases, no items were removed.

The below table, Table 3, displays the number of responses removed from the dataset based on respondents acknowledging participation in a rewards scheme but failing to acknowledge frequency at the retailer where that rewards scheme is operated. This was done for the purpose of preparing the data on the dependent variable "Frequency". It is observed by the researcher that the other parent in the household could have frequented the retail store; however, for the purposes of working with data provided and available, the decision taken by the researcher was to transform the data based on what was available in the dataset. It is however assumed for the purposes of the study that the household does not frequent the store at all.

Table 3: Data preparation

Participation (marked yes)	Shopping Frequency (not at all)	Responses removed
Checkers Little Brands	Frequency_Checkers	15
Woolworths WRewards	Frequency_Woolworths	39
Pick n Pay Smart Shopper	Frequency_Pick n Pay	21
Total removed from dataset		75

In association, the aggregation of the data in terms of frequency was prepared as follows:

- Only daily, weekly and monthly shopping frequencies were considered;
- Daily is greater than weekly and monthly and hence daily would be the elected shopping frequency against a response;
- Weekly is greater than monthly and hence weekly would be the elected shopping frequency against a response;
- Any frequency response reflected as “yearly”; “less often”; or “not at all” was removed and as a result any response not within daily, weekly or monthly was recorded as “Not at all”

The derivative from the above data aggregation was new variables namely; Participation_CH, Participation_PP and Participation_WW which were conducted by the following process:

- All responses that marked participation in the Checkers Little Brands, Pick ‘n Pay Smart Shopper and Woolworths WRewards rewards schemes and frequency of daily, weekly or monthly at Checkers, Pick ‘n Pay and Woolworths respectively was attributed a 1;
- Anything else was attributed a 0

The final dataset used for the data analysis was as a result 502.

Respondent Profile

The following section of the report depicts the demographic profile of the respondents from the 502 usable questionnaires. This is represented in a table format for ease of reference:

Table 4: Parent_Type

	Mother	Father	Step-mother	Step-father
Parent	84.83%	14.67%	0.33%	0.00%

Mother’s accounted for the largest size of the sample size in reflecting 84.83% of the respondents. A mere 14.67% of the respondents were fathers. The representability of the sample leans more on the female gender spectrum.

Table 5: Parent_Education

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	13	2.6	2.6	2.6
	Secondary School	253	50.4	50.4	53.0
	Bachelor degree	162	32.3	32.3	85.3
	Honours degree	46	9.2	9.2	94.4
	Masters / PhD	28	5.6	5.6	100.0
	Total	502	100.0	100.0	

253 (50.4%) of the respondents had secondary schooling education, whilst 162 (32.3%) of the respondents held a Bachelor's degree.

Table 6: Parent_Age

Age_Parent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 – 25 years	2	0.4	0.4	0.4
	26 – 30 years	32	6.4	6.4	6.8
	31 – 35 years	124	24.7	24.7	31.5
	36 – 40 years	167	33.3	33.3	64.7
	+41 years	177	35.3	35.3	100.0
	Total	502	100.0	100.0	

The highest age frequency reported from respondents to the survey was within the age bracket +41 years of age (177 respondents, 35.3%). Following very closely, 167 respondents (33.3%) were within the 36 – 40 years age bracket whilst 124 respondents (24.7%) were between 31 – 35 years of age.

Table 7: Age_Child

Age_Child					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7 years	159	31.7	31.7	31.7
	8 years	115	22.9	22.9	54.6
	9 years	98	19.5	19.5	74.1
	10 years	73	14.5	14.5	88.6
	11 years	57	11.4	11.4	100.0
	Total	502	100.0	100.0	

Considerate of the data transformation that was conducted on the variable Age_Child, in which the age of the youngest child was taken where more than one child was reported by parents, the respondent profile reflected 159 children (31.7%) were aged 7 years, whilst 115 (22.9%) of the children were 8 years of age. Children aged 9 years accounted for 19.5%, 10

years of age accounted for 14.5% and 11.4% of the children were recorded by parents were 11 years of age.

Table 8: Child_Gender

Gender_Child					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daughter	223	44.4	44.4	44.4
	Son	222	44.2	44.2	88.6
	Both Genders	57	11.4	11.4	100.0
	Total	502	100.0	100.0	

The data preparation of the dataset in which both genders were coded into the analysis, the split between the genders of children were relatively equal with 223 daughters (44.4%) and 222 sons (44.2%) being recorded by respondents. 57 of the respondents (11.4%) reported both genders in the family household. Worth noting is that the number of more than one child of the same gender was not accounted for in the data transformation of the dataset.

Table 9: Participation in Rewards Schemes

	Participation_PP	Participation_WW	Participation_CH
Yes	91%	58%	41.2%
No	9%	42%	58.8%

Of the respondents who acknowledged participation in a rewards scheme (otherwise acknowledged in the literature of this report as loyalty programmes), 91% of the respondents participate in Pick 'n Pay Smart Shopper, 58% participate in Woolworths WRewards and only 41.2% of the respondents acknowledged participation in the Checkers Little Brands rewards scheme. Given that a respondent could participate in more than one rewards scheme, the shopping frequency of respondents is presented below:

Table 10: Shopping Frequency

	Frequency_PP	Frequency_WW	Frequency_CH
Daily	15.9%	6%	8.6%
Weekly	53.4%	31.1%	39%
Monthly	26.5%	33.7%	29.3%
Not at all	4.2%	29.3%	23.1%

Of the 502 respondents, 268 respondents (53.4%) frequent Pick 'n Pay on a weekly basis, whilst 133 respondents (26.5%) frequent Pick 'n Pay on a monthly basis. Only 80

respondents (15.9%) shop daily at Pick 'n Pay, whilst of the respondents surveyed, only 21 respondents (4.2%) do not shop at all at Pick 'n Pay.

33% (169) of the respondents acknowledged frequenting Woolworths on a monthly basis, 31.7% (156) on a weekly basis and 29.3% (147) do not shop at Woolworths at all.

39% (196) respondents frequent Checkers on a weekly basis and 29.3% (147) respondents shop at Checkers on a monthly basis. 23.1% (116) of the respondents surveyed did not shop at Checkers at all and only 8.6% (43) respondents shopped at Checkers on a daily basis. It is essential to message that Checkers displayed the least popularity in shopping frequency of the three stores measured.

The descriptive statistics exhibited 502 respondents which connotes an adequate sample size for the purposes of representing the distribution in the data.

Data validation – reliability and validity

The Cronbach's alpha coefficient was tabulated as a means of validating reliability on the five constructs; Expert Power, Legitimate Power, Referent Power, Reward Power and Coercive Power as derived from the factor analysis. The below table, Table 11, depict the Cronbach's alpha coefficient for each of the constructs which evidenced scale reliability of $\alpha > 0.70$. These values were inserted into the confirmatory factor analysis (CFA)

Table 11: Cronbach Alpha construct reliability testing

Child in the shopping environment		Child not in the shopping environment	
Latent Variable	Cronbach Alpha	Latent Variable	Cronbach Alpha
Expert Power	0.856	Expert Power	0.903
Legitimate Power	0.822	Legitimate Power	0.844
Referent Power	0.89	Referent Power	0.908
Reward Power	0.913	Reward Power	0.937
Coercive Power	0.874	Coercive Power	0.894

A cut-off of 0.70 was adopted as evidence of adequate scale reliability (Hair et al, 2010). Reliability of the five constructs to be analysed are greater than the 0.70 level and is therefore considered acceptable. These measures had been imputed into the confirmatory factor analysis which is a multivariate statistical tool that is a special form of factor analysis predominantly used in research of a social context (MacCallum & Austin, 2000).

Confirmatory Factor Analysis

Power with Child

Table 12: Confirmatory Factor Analysis (construct validity testing) - first round

Latent Variable	Indicator Coding	Loadings	Loading criteria	VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	ALPHA	Composite Reliability (CR)	CR/Rule of the thumb	Delta (CR - Alpha)	Construct Validity Result
Expert power	EP1	0.706	Loading > 0.7	0.545	VE>0.5	Yes	0.856	0.915	CR>0.7	CR is larger than Alpha	Construct Validity is achieved
	EP2	0.759	Loading > 0.7								
	EP3	0.779	Loading > 0.7								
	EP4	0.796	Loading > 0.7								
	EP5	0.804	Loading > 0.7								
	EP6	0.800	Loading > 0.7								
	EP7	0.691	0.5>Loading < 0.7- caution is required								
	EP8	0.719	Loading > 0.7								
	EP9	0.633	0.5>Loading < 0.7- caution is required								
Legitimate power	LP1	0.418	Loading < 0.5	0.234	VE<0.5	Yes	0.822	0.449	CR<0.6	Alpha is larger than CR	Construct Validity is not achieved
	LP2	0.476	Loading < 0.5								
	LP3	0.491	Loading < 0.5								
Referent power	RP1	0.485	Loading < 0.5	0.460	VE<0.5	Yes	0.89	0.711	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	RP2	0.770	Loading > 0.7								
	RP3	0.740	Loading > 0.7								
Reward power	RWP1	0.717	Loading > 0.7	0.454	VE<0.5	Yes	0.913	0.744	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	RWP2	0.768	Loading > 0.7								
	RWP3	0.616	0.5>Loading < 0.7- caution is required								
Coercive power	CP1	0.452	Loading < 0.5	0.458	VE<0.5	No	0.874	0.691	0.6< CR < 0.7	Alpha is larger than CR	Construct Validity is not achieved
	CP2	0.759	Loading > 0.7								
	CP3	0.730	Loading > 0.7								

Validity was assessed through confirmatory components factor analysis (CFA) which used principle components and reliability was tested using Cronbach's alpha coefficient which were fed into the confirmatory factor analysis. Confirmatory factor analysis is a multivariate statistical tool, which is a special form of factor analysis predominantly used in research of a social context. CFA tests how healthy the measured variables characterize the number of constructs. With reference to Table 12, which depicts the results from the CFA, it is observed that the construct Legitimate Power failed outright with a composite reliability value of 0.449. Composite reliability was used as a measure of reliability due to there being more than one item measuring the same construct (Expert Power = 9 items; Legitimate Power = 3 items; Referent Power = 3 items; Reward Power = 3 items and Coercive Power = 3 items). Legitimate power was rejected as it failed to meet the yardstick of 0.7 which is considered to be adequate (Hair et al, 2010) and hence it was excluded from the first round of CFA following these results. The decision was taken to remove Legitimate Power as a construct based on it failing to meet reliability. At this point it is worth mentioning that despite Referent Power, Reward Power and Coercive Power failing construct validity, these were not eliminated on the premise that the Cronbach Alpha's were higher than the composite reliability. Legitimate Power failed to meet an Alpha greater than composite reliability. In addition to the removal of Legitimate Power, RP1 which asked respondents "My child's feelings influence where I shop" and CP1 which asked respondents "I may give in and shop where my child wants, to keep him or her from getting upset" were also removed due to the items loading < 0.5. RWP3 which asked respondents "When I shop at the place that my child prefers, I think that my child might do something for me in return" did not outright fail the loading criteria, however, it was flagged and hence removed.

Having removed Legitimate Power as a result of the construct failing to meet the composite reliability benchmark of 0.7, the CFA was re-run with the results depicted below in Table 13, displaying improvement in the representation.

Table 13: Confirmatory Factor Analysis (construct validity testing) - second round

Latent Variable	Indicator Coding	Loadings	Loading criteria	VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	ALPHA	Composite Reliability (CR)	CR/Rule of the thumb	Delta (CR - Alpha)	Construct Validity Result
Expert power	EP1	0.706	Loading > 0.7	0.545	VE>0.5	Yes	0.856	0.915	CR>0.7	CR is larger than Alpha	Construct Validity is achieved
	EP2	0.759	Loading > 0.7								
	EP3	0.779	Loading > 0.7								
	EP4	0.736	Loading > 0.7								
	EP5	0.804	Loading > 0.7								
	EP6	0.800	Loading > 0.7								
	EP7	0.691	0.5>Loading < 0.7- caution is required								
	EP8	0.719	Loading > 0.7								
	EP9	0.633	0.5>Loading < 0.7- caution is required								
Referent power	RP2	0.737	Loading > 0.7	0.543	VE>0.5	Yes	0.924	0.704	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	RP3	0.737	Loading > 0.7								
	RWP1	0.706	Loading > 0.7								
Reward power	RWP2	0.706	Loading > 0.7	0.498	VE<0.5	No	0.913	0.665	0.6< CR < 0.7	Alpha is larger than CR	Construct Validity is not achieved
	CP2	0.726	Loading > 0.7								
Coercive power	CP3	0.726	Loading > 0.7	0.527	VE>0.5	Yes	0.92	0.690	0.6< CR < 0.7	Alpha is larger than CR	Construct Validity is not achieved

The second round of CFA reflected that the construct validity of Referent Power was now achieved, with Reward and Coercive Power still not achieving construct validity but accepted due to their Alpha's being greater than composite reliability.

Table 14: Confirmatory Factor Analysis (discriminant validity testing) - second round

Convergent-Discriminant Validity Matrix				
	Expert power	Referent power	Reward power	Coercive power
Expert power	0.545			
Referent power	0.359	0.543		
Reward power	0.359	0.496	0.498	
Coercive power	0.227	0.318	0.544	0.527
	We have Discriminant Validity	We have Discriminant Validity	We don't have Discriminant Validity	We have Discriminant Validity

Stemming from the second round of CFA, constructs which failed discriminant validity was Reward Power in that some of the items are thought to have reflected one of the other construct items. For this reason, Reward Power was excluded in the second round, as depicted in Table 14. Ensuing from Legitimate Power failing reliability and Reward Power failing discriminant validity, the constructs were trimmed as per reliability results

Despite the first round of CFA reflecting Coercive Power failing discriminant validity, the removal of Legitimate Power in the first round had returned discriminant validity for all remaining constructs except Reward Power which failed on discriminant validity. On reflection of the above table, it can be seen that Reward Power and Coercive Power are closely related. This is depicted by the correlation between Coercive Power and Reward Power being at 0.5, which indicates that the variables on the construct Reward Power (0.544) are more related to Coercive Power (0.527) than it is on Reward Power (0.498). The intra-item correlation of Coercive Power at 0.527 displayed more coherence with each other and had such been accepted.

In summarising the outcome of the CFA:

- Expert Power, Referent Power and Coercive Power will be tested in measuring the influence of the child on shopping frequency when the child is present in the shopping environment
- Legitimate Power had failed construct validity and was subsequently removed

- Reward Power had failed discriminant validity and was therefore removed
- The question item RP1; “My child’s feelings influence where I shop” failed the loading criteria and was removed
- Question item CP1; “I may give in and shop where my child wants, to keep him or her from getting upset” was also removed with a loading criteria < 0.5
- Question item RWP3; “When I shop at the place that my child prefers, I think that my child might do something for me in return” did not outright fail the loading criteria, however, it was flagged and hence removed

Power without Child

Table 15: Confirmatory Factor Analysis (construct validity testing) - first round

Latent Variable	Indicator Coding	Loadings	Loading criteria	VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	ALPHA	Composite Reliability (CR)	CR/Rule of the thumb	Delta (CR - Alpha)	Construct Validity Result
Expert power	EP1	0.657	0.5>Loading < 0.7- caution is required	0.580	VE>0.5	Yes	0.903	0.925	CR>0.7	CR is larger than Alpha	Construct Validity is achieved
	EP2	0.806	Loading > 0.7								
	EP3	0.800	Loading > 0.7								
	EP4	0.697	0.5>Loading < 0.7- caution is required								
	EP5	0.821	Loading > 0.7								
	EP6	0.828	Loading > 0.7								
	EP7	0.730	Loading > 0.7								
	EP8	0.737	Loading > 0.7								
	EP9	0.759	Loading > 0.7								
Legitimate power	LP1	0.424	Loading < 0.5	0.273	VE<0.5	Yes	0.844	0.926	CR>0.6	Alpha is larger than CR	Construct Validity is not achieved
	LP2	0.588	0.5>Loading < 0.7- caution is required								
	LP3	0.563	0.5>Loading < 0.7- caution is required								
Referent power	RP1	0.550	0.5>Loading < 0.7- caution is required	0.526	VE>0.5	Yes	0.908	0.764	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	RP2	0.817	Loading > 0.7								
	RP3	0.780	Loading > 0.7								
Reward power	RWP1	0.749	Loading > 0.7	0.573	VE>0.5	Yes	0.937	0.801	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	RWP2	0.753	Loading > 0.7								
	RWP3	0.768	Loading > 0.7								
Coercive power	CP1	0.452	Loading < 0.5	0.518	VE>0.5	Yes	0.894	0.752	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	CP2	0.823	Loading > 0.7								
	CP3	0.820	Loading > 0.7								

The above table, Table 15, exhibits that Legitimate Power failed again in the measuring of Power when the child is not present in the shopping environment and as a result was removed. Although it is demonstrated that Coercive Power has not achieved construct validity, it can be seen that the Cronbach Alpha is greater than the composite reliability and hence why this construct was not removed. Legitimate Power, as seen in the measurement of a child’s power when the child is present in the shopping environment, failed to meet an Alpha greater than composite reliability, resulting in the construct being removed. As per the first CFA testing against when the child is in the shopping environment, CP1 which asked respondents “I may give in and shop where my child wants, to keep him or her from getting upset” was removed from measuring Power when the child is not present in the shopping environment due to the items loading < 0.5

Following the removal of Legitimate Power based on it failing construct validity and it’s Alpha not being greater than the composite reliability, the CFA was re-run with the results depicted below in Table 16, displaying improvement in the representation.

Table 16: Confirmatory Factor Analysis (construct validity testing) - second round

Latent Variable	Indicator Coding	Loadings	Loading criteria	VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	ALPHA	Composite Reliability (CR)	CR/Rule of the thumb	Delta (CR - Alpha)	Construct Validity Result
Expert power	EP1	0.657	0.5>Loading < 0.7- caution is required	0.580	VE>0.5	Yes	0.903	0.925	CR>0.7	CR is larger than Alpha	Construct Validity is achieved
	EP2	0.806	Loading > 0.7								
	EP3	0.800	Loading > 0.7								
	EP4	0.697	0.5>Loading < 0.7- caution is required								
	EP5	0.821	Loading > 0.7								
	EP6	0.828	Loading > 0.7								
	EP7	0.730	Loading > 0.7								
	EP8	0.737	Loading > 0.7								
Referent power	RP1	0.550	0.5>Loading < 0.7- caution is required	0.526	VE>0.5	No	0.908	0.764	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	RP2	0.817	Loading > 0.7								
	RP3	0.780	Loading > 0.7								
Reward power	RWP1	0.749	Loading > 0.7	0.573	VE>0.5	No	0.937	0.801	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	RWP2	0.753	Loading > 0.7								
	RWP3	0.768	Loading > 0.7								
Coercive power	CP2	0.814	Loading > 0.7	0.663	VE>0.5	Yes	0.949	0.797	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	CP3	0.814	Loading > 0.7								

The second round of CFA reflected that the construct validity of Reward Power and Referent Power was not achieved but depicts their Alpha's being greater than composite reliability.

The decision on whether to remove Referent Power and Reward power from the testing was based on the both constructs failing to meet discriminant validity, as depicted in the below in Table 17:

Table 17: Confirmatory Factor Analysis (discriminant validity testing) - second round

Convergent-Discriminant Validity Matrix				
	Expert power	Referent power	Reward power	Coercive power
Expert power	0.580			
Referent power	0.417	0.526		
Reward power	0.413	0.654	0.573	
Coercive power	0.313	0.557	0.731	0.663
	We have Discriminant Validity	We don't have Discriminant Validity	We don't have Discriminant Validity	We have Discriminant Validity

Established on the failure to meet discriminant validity, Referent Power and Reward Power were excluded from testing.

Regardless of the first round of CFA reflecting all constructs achieving discriminant validity, the removal of Legitimate Power in the first round had returned discriminant validity being achieved for Expert Power and Coercive Power only, with Referent Power and Reward Power failing on discriminant validity. With consideration of the above table, it can be seen that the variables on the construct Referent Power (0.654) are more related to Reward Power (0.573) than it is on Referent Power (0.526). Similarly, the variables on the construct Reward Power (0.731) are more related to Coercive Power (0.663) than it is on Reward Power (0.573).

In summarising the outcome of the CFA:

- Expert Power and Coercive Power will be tested in measuring the influence of the child on shopping frequency when the child is present in the shopping environment
- Legitimate Power had failed construct validity and was subsequently removed
- Reward Power had failed construct validity and discriminant validity and was therefore removed

- Question item CP1; “I may give in and shop where my child wants, to keep him or her from getting upset” was also removed with a loading criteria < 0.5

Outliers

The initial sample size for the study was 600. Those responses that can be distinctly identified as different from other responses are outliers (Hair et al, 2010). The threshold value applied was above or below 3.1 however Hair et al (2010) indicated that in identifying outliers a standardised score of 4.0 is acceptable. Checks of the Z scores were reviewed in determining whether any of the questions were above or below 3.1.

Distribution statistics

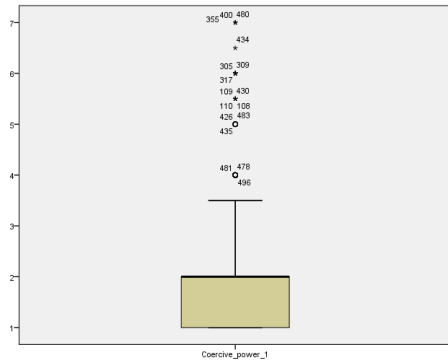
The descriptive statistics that were run for measuring Power when the child is present in the shopping environment to ascertain skewness and outliers demonstrated that Coercive Power had influential and problematic outliers as exhibited by the Skewness of 1.613 and standard error of 0.109, as depicted in Table 18:

Table 18: Descriptive Statistics

		Descriptives		
		Statistic	Std. Error	
Coercive_power_1	Mean	1.9871	0.05660	
	95% Confidence Interval for Mean	Lower Bound	1.8759	
		Upper Bound	2.0983	
	5% Trimmed Mean	1.8358		
	Median	2.0000		
	Variance	1.608		
	Std. Deviation	1.26811		
	Minimum	1.00		
	Maximum	7.00		
	Range	6.00		
	Interquartile Range	1.00		
	Skewness	1.613	0.109	
	Kurtosis	2.331	0.218	

As a result of Expert Power and Referent Power in the context of when the child is present in the shopping environment reflecting no influential outliers, the current report merely focuses on the construct that did exhibit influential outliers. With skewness values being three times more than the standard error, these outliers were filtered out. The below boxplot (Graph 1) identifies the outliers that were influencing skewness and as such were removed.

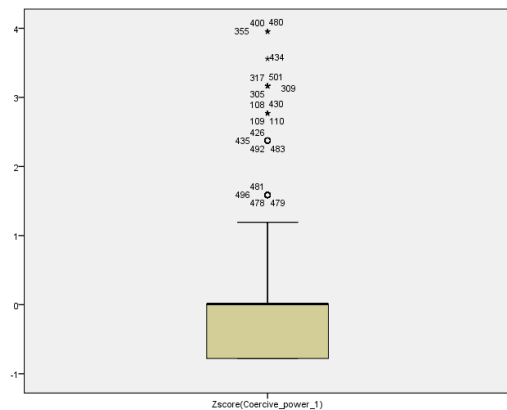
Graph 1: Boxplots Coercive_Power_1



It can be seen based on the boxplots that seventeen cases were removed from the dataset to account for the removal of outliers which impacted skewness. A re-run of the descriptive statistics returned a detrended Normal Q-Q Plot of Zscore Coercive Power_1, which reflects that skewness was addressed by the removal of the outliers.

Zscore results as depicted by the boxplots reproduced below in Graph 2, identified a further three cases which were influential outliers and as such were removed.

Graph 2: Boxplots Zscore Coercive_Power_1



In addition to the below, the Zscore descriptives, depicted below in Table 19, reflected the change in skewness which was as a result of the outliers being removed.

Table 19: Zscore Descriptives (when the child is present during shopping)

			Descriptives	
			Statistic	Std. Error
Zscore(Coercive_power_1)	Mean		-0.4481219	0.01900112
	95% Confidence Interval for Mean	Lower Bound	-0.4854785	
		Upper Bound	-0.4107653	
	5% Trimmed Mean		-0.4552382	
	Median		-0.7783615	
	Variance		0.142	
	Std. Deviation		0.37716155	
	Minimum		-0.77836	
	Maximum		0.01021	
	Range		0.78857	
	Interquartile Range		0.78857	
	Skewness		0.330	0.123
	Kurtosis		-1.831	0.245

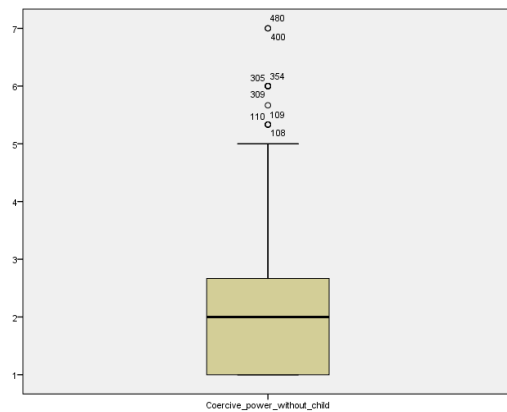
In reviewing the distribution statistics when the child is not present in the shopping environment, only Coercive Power again reflected influential and problematic outliers. This can be seen in the reproduction of Table 20 which displays the descriptive statistics, drawing close attention on the Skewness values:

Table 20: Zscore descriptives (when the child is not present during shopping)

			Descriptives	
			Statistic	Std. Error
Coercive_power_without_child	Mean		2.0584	0.05598
	95% Confidence Interval for Mean	Lower Bound	1.9485	
		Upper Bound	2.1684	
	5% Trimmed Mean		1.9303	
	Median		2.0000	
	Variance		1.573	
	Std. Deviation		1.25419	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.67	
	Skewness		1.300	0.109
	Kurtosis		1.227	0.218

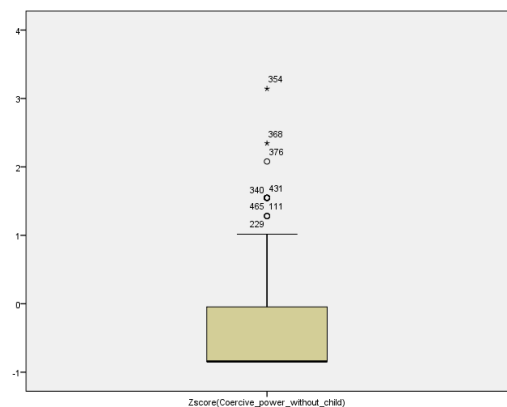
Based on the boxplots reproduced below (Graph 3), it can be seen that eight cases were identified as outliers and as such was subsequently removed

Graph 3: Boxplots Coercive_Power_without_child



Subsequent to Zscore calculations and with reference to the below boxplots (Graph 4), an additional seven cases were removed

Graph 4: Boxplots Zscore Coercive_Power_without_child



In summarising the distribution statistics:

- Only cases on Coercive Power returned influential and problematic outliers
- In the measurement of Power when the child is present in the shopping environment, twenty cases were identified as outliers and subsequently removed
- In the measurement of Power when the child is not present in the shopping environment, fifteen cases were identified as outliers and subsequently removed

It is worth stating that normality is not as much of a concern for regression. Having distinguished this a look at the descriptive statistics post the addressing of skewness is presented below in referencing the below table, Table 21:

Descriptive statistics

Table 21: Descriptive statistics of construct variables (post removal of outliers)

Descriptives			Statistic	Std. Error
Zscore(Expert_power_1)	Mean		-0.0914315	0.04971382
	95% Lower Bound		-0.1891694	
	Confidence Interval for Mean	Upper Bound	0.0063064	
	5% Trimmed Mean		-0.1252345	
	Median		-0.1393149	
	Variance		0.974	
	Std. Deviation		0.98678720	
	Minimum		-1.83105	
	Maximum		2.49316	
	Range		4.12421	
	Interquartile Range		1.49174	
	Skewness		0.292	0.123
	Kurtosis		-0.486	0.245

Descriptives			Statistic	Std. Error
Zscore(Referent_power_1)	Mean		-0.1458006	0.05176322
	95% Lower Bound		-0.2473680	
	Confidence Interval for Mean	Upper Bound	-0.0438331	
	5% Trimmed Mean		-0.1600105	
	Median		-0.0110041	
	Variance		1.056	
	Std. Deviation		1.02747058	
	Minimum		-1.66822	
	Maximum		1.64621	
	Range		3.31444	
	Interquartile Range		1.93342	
	Skewness		-0.013	0.123
	Kurtosis		-1.234	0.245

Descriptives			Statistic	Std. Error
Zscore(Coercive_power_1)	Mean		-0.4481219	0.01900112
	95% Lower Bound		-0.4854785	
	Confidence Interval for Mean	Upper Bound	-0.4107853	
	5% Trimmed Mean		-0.4552382	
	Median		-0.7783615	
	Variance		0.142	
	Std. Deviation		0.37716155	
	Minimum		-0.77836	
	Maximum		0.01021	
	Range		0.78857	
	Interquartile Range		0.78857	
	Skewness		0.330	0.123
	Kurtosis		-1.831	0.245

The above tables reflect that the mean being more or less similar across all constructs is an indication that the data is probably normally distributed. The spread of the scores as reflected by the standard deviation is higher for “Referent Power with child”; suggesting that this exertion of power to influence parent purchase behaviour is more variable than the other constructs.

The descriptive statistics depicted above are identified as being normally distributed based on the standard deviation not being three times more than the skewness values.

Having prepared the dataset and analysed it in the context of its validity and reliability testing, respondent profile and descriptive statistics, an analysis into the individual hypotheses and the results thereto are presented.

Hypothesis testing – hierarchical regression

Hierarchical regression characterised as a model framework as opposed to a statistical method, is used to display whether the level of statistical significance in a Dependent Variable (DV) can be explained by the variables of interest post consideration of all other variables (Kim, 2016). The model requires the construction of several regression models in which variables are added to a previous model at each step (Kim, 2016). This is conducted for the purpose of determining if newly added variables reflect a change in significance (Kim, 2016). This model is considered fit for the study in that it enables the explanation of the independent variables Powers on the dependent variable Frequency, whilst allowing for the addition of other independent variables such as Age_Child, Participation and Education at each step. This enables the facilitation of gaging the statistical significance of a child’s power on shopping frequency after accounting for other variables. The reproduction of the hierarchical regression models shown will display the different models built in measuring the statistical significance of Power on Frequency.

With a hierarchical regression model being adopted for the study to test the hypotheses, a list of all hypotheses to be tested with the various constructs is detailed Table 22 below:

Table 22: Hypotheses to be tested via Hierarchical Regression Analysis

Hypotheses to be tested post CFA	
Construct	Hypothesis
Expert Power with child	H1a: A child who has more knowledge about a loyalty programme, increases repeat patronage when the child is in-situation
Referent Power with child	H3a: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is in-situation
Coercive Power with child	H5a: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is in-situation
Expert Power without child	H1b: A child who has more knowledge about a loyalty programme, increases repeat patronage when they are not in-situation
Coercive Power without child	H5b: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is not in-situation
Loyalty	H6: Parents prefer to shop more often at shops with a rewards scheme that offers individual rewards schemes

Notably, the removal of Legitimate Power and Reward Power in CFA testing for when the child is present in the shopping environment has resulted in the following hypotheses not being able to be tested are presented in Table 23:

Table 23: Hypotheses not to be tested via Hierarchical Regression Analysis

Hypotheses not to be tested post CFA	
Construct	Hypothesis
Legitimate Power	H2a: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is in-situation H2b: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is not in-situation
Reward Power	H4a: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is in-situation H4b: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is not in-situation
Referent Power	H3b: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is not in-situation

Regression in levels on frequency (total frequency)

Constructs when the child is present

Table 24: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.184 ^a	0.034	0.026	0.12474
2	.194 ^b	0.038	0.028	0.12466
3	.492 ^c	0.243	0.229	0.11103

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

With reference to the above table, Table 24, Model 1 which depicts the influence of a child's power on total shopping frequency, reflected a R^2 value of 0.034 which explains that 3.4% of the dependent variable Frequency can be explained by the independent variables, Power.

Model 2 which includes the age of the child (Age_Child) portrays a R^2 value of 0.038 which explains that 3.8% of the dependent variable Frequency can be explained by the independent variables, Power and independent variable Age_Child.

Model 2 which includes the participation in a loyalty programme (Participation_PP, Participation_WW, Participation_CH) portrays a R^2 value of 0.243 which explains that 24.3% of the dependent variable Frequency can be explained by the independent variables, Power, independent variable Age_Child and Participation, however, it is duly noted that the participation in a loyalty programme increases the variability explanation on the dependent variable Frequency. The low R^2 values signify no explanation in the predictive variability; however, low adjusted R-squared values below 50% are typical in the field of predicting human behaviour (Frost, 2013).

The ANOVA table for Model 1, Model 2 and Model 3 of the hierarchical regression analysis displayed below, in Table 25, reveals p value scores of Model 1 = 0.004, Model 2 = 0.005 and Model 3 = 0.000 which is less than the p value of 0.05. This represents that the hierarchical regression model statistically significantly predicts the outcome variable and that the model is a good fit for the data.

Table 25: ANOVA Table

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.213	3	0.071	4.563	.004 ^b
	Residual	6.069	390	0.016		
	Total	6.282	393			
2	Regression	0.236	4	0.059	3.803	.005 ^c
	Residual	6.045	389	0.016		
	Total	6.282	393			
3	Regression	1.524	7	0.218	17.657	.000 ^d
	Residual	4.758	386	0.012		
	Total	6.282	393			

a. Dependent Variable: Freq

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

With reference to the below table, Table 26 which is the coefficients table from the hierarchical regression analysis conducted when the child is in the shopping environment, it can be seen that the influence of children exerting expert power in the shopping environment (**Expert Power_1**, $b=0.024$, $p=0.001$) appear to be related to influencing shopping frequency – a result which was somewhat expected. Referent Power (**Referent Power_1**, $b=-0.003$) is not significant ($p=0.641$), and the coefficient is negative which would indicate that referent power is related to a lower degree of influence on parents shopping behaviour - which is what was expected. Coercive Power in the shopping environment (**Coercive Power with child**, $b=0.011$, $p=0.518$) give the impression that this construct is unrelated to influencing shopping frequency – a result which was only expected for coercive power. The inclusion of the independent variable age of the child did not alter the above findings. The age of the child when the child is in the shopping environment (**Age_Child**, $b=0.006$, $p=0.221$) give the impression that this construct is unrelated to influencing shopping frequency and the coefficient is negative which would indicate that the age of the child is related to a lower degree of influence on parents shopping behaviour – a result which was not anticipated.

Table 26: Regression Coefficients Table

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.614	0.010		62.756	0.000
	Zscore(Expert_power_1)	0.024	0.007	0.186	3.444	0.001
	Zscore(Referent_power_1)	-0.003	0.007	-0.025	-0.466	0.641
	Zscore(Coercive_power_1)	0.011	0.017	0.033	0.648	0.518
2	(Constant)	0.629	0.016		39.829	0.000
	Zscore(Expert_power_1)	0.025	0.007	0.196	3.594	0.000
	Zscore(Referent_power_1)	-0.003	0.007	-0.022	-0.400	0.689
	Zscore(Coercive_power_1)	0.012	0.017	0.035	0.687	0.493
3	Age_Child	-0.006	0.005	-0.062	-1.227	0.221
	(Constant)	0.458	0.025		18.182	0.000
	Zscore(Expert_power_1)	0.015	0.007	0.113	2.185	0.030
	Zscore(Referent_power_1)	0.004	0.006	0.030	0.612	0.541
	Zscore(Coercive_power_1)	0.008	0.016	0.023	0.498	0.619
	Age_Child	-0.004	0.004	-0.039	-0.850	0.396
	Participation_PP	0.099	0.021	0.207	4.649	0.000
	Participation_WW	0.091	0.011	0.356	7.925	0.000
Participation_CH	0.048	0.012	0.190	3.957	0.000	

a. Dependent Variable: Freq

On inclusion of the independent variable participation in the loyalty programmes (Participation_PP, Participation_WW and Participation_CH), expert power remains influential, albeit limited, but the participation in a loyalty programme supersedes the expert power of the child when the child is present in the shopping environment.

Constructs when the child is not present

While the above results depict the degree of influence of independent variables Power, Age_Child and Participation on Frequency, a hierarchical regression analysis was conducted on constructs when a child is not present in the shopping environment. As mentioned above in the CFA, two constructs failed the validation in shopping without the child (Reward Power and Referent Power) and as such they were excluded from the dataset used in analyzing the influence of variables on shopping frequency. As found in the CFA of when shopping takes place with the child, outliers on Coercive Power were found and were excluded from the dataset on the premise that they were influencing the skewness of the distribution. In sight of this, only expert power and coercive power was tested when the child is not in present during shopping. The above mentioned results remain in that shopping without the child does not explain anything further.

Hierarchical regression per store

Pick 'n Pay frequency and Participation in loyalty programme

Whilst the above-mentioned results reflected the outcome based on Total Frequency, a hierarchical regression per store was conducted in addressing Hypothesis six: Parents prefer to shop more often at shops with a rewards scheme that offers individual rewards schemes. Interestingly, frequency at Pick 'n Pay (Dep1_1PPFreq) reflected a R^2 value of 0.195 which explains that 19.5% of the dependent variable Dep1_1PPFreq can be explained by the independent variables, Power, Age_Child and Participation_PP. The model summary of this is reflected below in Table 27:

Table 27: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.115 ^a	0.013	0.006	0.716
2	.116 ^b	0.013	0.003	0.717
3	.442 ^c	0.195	0.180	0.650

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

A look at the coefficients table, Table 28, provides further interest insight which displays interesting findings on participation and power

Table 28: Regression Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.805	0.056		49.947	0.000
	Zscore(Expert_power_1)	0.037	0.040	0.050	0.921	0.358
	Zscore(Referent_power_1)	0.062	0.039	0.089	1.607	0.109
	Zscore(Coercive_power_1)	-0.038	0.098	-0.020	-0.387	0.699
2	(Constant)	2.785	0.091		30.659	0.000
	Zscore(Expert_power_1)	0.035	0.040	0.048	0.866	0.387
	Zscore(Referent_power_1)	0.061	0.039	0.088	1.588	0.113
	Zscore(Coercive_power_1)	-0.039	0.098	-0.020	-0.396	0.693
3	Age_Child	0.008	0.027	0.014	0.276	0.783
	(Constant)	1.996	0.147		13.534	0.000
	Zscore(Expert_power_1)	0.064	0.039	0.087	1.633	0.103
	Zscore(Referent_power_1)	0.055	0.035	0.079	1.570	0.117
	Zscore(Coercive_power_1)	0.005	0.091	0.003	0.060	0.953
	Age_Child	-0.017	0.025	-0.033	-0.689	0.491
	Participation_PP	1.093	0.124	0.404	8.783	0.000
Participation_WW	-0.128	0.067	-0.088	-1.907	0.057	
Participation_CH	-0.144	0.072	-0.099	-2.011	0.045	

a. Dependent Variable: Dep1_1PPFreq

Although it has been shown in earlier discussions of this section that a child's expert power when the parent shops with the child or without the child is influential in frequency, a child's expert power is not significant ($p=0.103$) on participation in the store's loyalty programme. On a separate point, it is worth highlighting that Participation_CH is statistically significant on frequency at Pick 'n Pay, which is not a finding that was anticipated.

Woolworths frequency and Participation in loyalty programme

Frequency at Woolworths (Dep1_2WWFreq) reflected a R^2 value of 0.476 which explains that 47.6% of the dependent variable Dep1_2WWFreq can be explained by the independent variables, Power, Age_Child and Participation_WW. The model summary of this is reflected below in Table 29:

Table 29: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.165 ^a	0.027	0.020	0.895
2	.173 ^b	0.030	0.020	0.895
3	.690 ^c	0.476	0.466	0.661

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

The table below, Table 30, displays the coefficient table from the regression, which once again depicts that a child's expert power is not significant ($p=0.128$) on participation in the store's loyalty programme.

Table 30: Regression Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.283	0.070		32.520	0.000
	Zscore(Expert_power_1)	0.054	0.050	0.059	1.095	0.274
	Zscore(Referent_power_1)	-0.048	0.048	-0.055	-1.003	0.317
	Zscore(Coercive_power_1)	0.371	0.122	0.155	3.037	0.003
2	(Constant)	2.379	0.113		20.971	0.000
	Zscore(Expert_power_1)	0.063	0.050	0.068	1.247	0.213
	Zscore(Referent_power_1)	-0.046	0.048	-0.052	-0.944	0.346
	Zscore(Coercive_power_1)	0.375	0.122	0.156	3.070	0.002
3	Age_Child	-0.037	0.034	-0.055	-1.069	0.286
	(Constant)	1.640	0.150		10.947	0.000
	Zscore(Expert_power_1)	0.060	0.040	0.066	1.527	0.128
	Zscore(Referent_power_1)	0.006	0.036	0.006	0.159	0.873
	Zscore(Coercive_power_1)	0.125	0.092	0.052	1.353	0.177
	Age_Child	-0.028	0.026	-0.041	-1.073	0.284
3	Participation_PP	-0.057	0.126	-0.017	-0.448	0.654
	Participation_WW	1.236	0.068	0.677	18.110	0.000
	Participation_CH	-0.100	0.073	-0.055	-1.370	0.172

a. Dependent Variable: Dep1_2WW

Checkers frequency and Participation in loyalty programme

Frequency at Checkers (Dep1_3CHFReq) reflected a R² value of 0.216 which explains that 21.6% of the dependent variable Dep1_3CHFReq can be explained by the independent variables, Power, Age_Child and Participation_CH. The model summary of this is reflected below in Table 31:

Table 31: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.206 ^a	0.042	0.035	0.901
2	.214 ^b	0.046	0.036	0.900
3	.465 ^c	0.216	0.202	0.819

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

The table below, Table 32, displays the coefficient table from the regression, which once again depicts that a child's expert power is not significant (p=0.306) on participation in the store's loyalty programme. Whilst Participation_CH was statistically significant to Dep1_1PPFreq, the reciprocal was not found to be for Dep1_3CHFReq – that is to say that Participation_PP was not statistically significant to Dep1_1CH.

Table 32: Regression Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.278	0.071		32.247	0.000
	Zscore(Expert_power_1)	0.195	0.050	0.210	3.902	0.000
	Zscore(Referent_power_1)	-0.051	0.048	-0.057	-1.056	0.292
	Zscore(Coercive_power_1)	-0.201	0.123	-0.083	-1.635	0.103
2	(Constant)	2.385	0.114		20.907	0.000
	Zscore(Expert_power_1)	0.204	0.051	0.220	4.041	0.000
	Zscore(Referent_power_1)	-0.048	0.049	-0.054	-0.990	0.323
	Zscore(Coercive_power_1)	-0.196	0.123	-0.081	-1.597	0.111
	Age_Child	-0.041	0.035	-0.060	-1.195	0.233
3	(Constant)	1.857	0.186		9.995	0.000
	Zscore(Expert_power_1)	0.050	0.049	0.054	1.025	0.306
	Zscore(Referent_power_1)	-0.017	0.044	-0.019	-0.380	0.704
	Zscore(Coercive_power_1)	-0.038	0.115	-0.016	-0.329	0.742
	Age_Child	0.001	0.032	0.001	0.031	0.976
	Participation_PP	0.149	0.157	0.043	0.952	0.342
	Participation_WW	-0.017	0.085	-0.009	-0.205	0.838
Participation_CH	0.824	0.090	0.445	9.133	0.000	

a. Dependent Variable: Dep1_3CH

Final Results

A summation of results derived from a hierarchical regression analysis is presented below, in Table 33:

Table 33: Hypotheses Results

Construct	Hypothesis	Result
Expert Power with child	H1a: A child who has more knowledge about a loyalty programme, increases repeat patronage when the child is in-situation	Reject
Referent Power with child	H3a: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is in-situation	Failed to reject
Coercive Power with child	H5a: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is in-situation	Failed to reject
Expert Power without child	H1b: A child who has more knowledge about a loyalty programme, increases repeat patronage when they are not in-situation	Failed to reject
Coercive Power without child	H5b: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is not in-situation	Reject
Loyalty	H6: Parents prefer to shop more often at shops with a rewards scheme that offers individual rewards schemes	Reject

For a detailed view of all regression models, please refer to Appendix 3

Chapter 5

Discussion of results

The previous chapter outlined the results from the data analysis conducted in testing the hypotheses. This chapter aims to display how the results derived contribute to the body of knowledge in the field of social power theory and loyalty programmes. As a refresher, the purpose of the study was to explore the adoption of a cross-customer effect as a new and differentiated approach to loyalty programs forms the basis for this study. The study aims to display that loyalty programs which target children may drive recursive behaviour as measured by shopping frequency. This section of the report commences with the findings for the power influence of a child on shopping frequency and later moves onto discussing the impact of a loyalty programme on shopping frequency.

The power of children

The tests conducted were in essence designed to display the propensity of children to influence purchase behaviour – an act considered reverse socialisation (Haryanto et al, 2016). Reverse socialisation demonstrates the influence of children on their parents, and draws on the concept of intergenerational influence (Haryanto et al, 2016). Intergenerational influence is best described as the influence that one generation has within the family for the purpose of transferring beliefs, information, preferences, attitudes, skills, values and behaviour (Cai, Zhao and He, 2015). As supported by the extant literature, it is found that children exert influence on purchasing behaviour through their social power (Flurry & Burn, 2005; Bradley & Nadeau, 2012), whether known or unknown to the parent (Flurry & Burn, 2005). Social power theory which is the theoretical framework that measures social power, presents five power bases: expert power, legitimate power, referent power, reward power and coercive power (Flurry & Burns, 2005). These are further elaborated in the below sections of this chapter.

With the focus of the study being posited to investigate the propensity for the targeting of children in a cross-customer effect to bring out differentiation in loyalty programmes, the study entailed an analysis on the power of influence of children on shopping frequency two environments, namely:

- Present in the shopping situation; and
- Absent from the shopping situation (reflective of the power of the child in the family buying center)

To gauge which of the powers: expert power, legitimate power, referent power, reward power and coercive power; has the resultant impact on parents shopping frequency, ten hypotheses had been developed. Five of the hypotheses tackle the power of the child to

influence shopping frequency when the child is present during the act of shopping and the other five hypotheses address the power of the child to influence shopping frequency when the child is not present during the act of shopping – the latter being tested to apprehend whether the influence of the child lies within the buying center of the family decision making process or not. Tabled below, Table 34, is a reminder of the hypotheses that were statistically tested against each of the Power constructs:

Table 34: Hypotheses tested

Construct	Present in the shopping act	Absent from the shopping act
Expert Power	H1a: A child who has more knowledge about a loyalty programme, increases repeat patronage when the child is in-situation	H1b: A child who has more knowledge about a loyalty programme, increases repeat patronage when they are not in-situation
Referent Power	H3a: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is in-situation	
Coercive Power	H5a: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is in-situation	H5b: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is not in-situation

Expert power

Nine items were used to measure the construct Expert Power:

- “My child knows best about the Pick n Pay Smart Shopper reward scheme”
- “My child knows best about the Woolworths WRewards reward scheme”
- “My child knows best about the Checkers Little Brands reward scheme”
- “My child has a lot of experience with the Pick n Pay Smart Shopper rewards scheme”
- “My child has a lot of experience with the Woolworths WRewards rewards scheme”
- “My child has a lot of experience with the Checkers Little Brands rewards scheme”
- “My child knows more about the Pick n Pay Smart Shopper rewards scheme than I do”
- “My child knows more about the Woolworths WRewards rewards scheme than I do”
- “My child knows more about the Checkers Little Brands rewards scheme than I do”

The items were then aggregated subsequent to CFA testing for the ease of measuring statistical significance to frequency. The section discusses the outcomes of H1a and H1b consequent from the hierarchical regression analysis. This metric had established reliability and validity. An analysis of the items shows them to be fairly neutral and not invoking any socially desirable responses, unlike those for “legitimate power” and “referent/reward” power

H1a: A child who has more knowledge about a loyalty programme, increases repeat patronage when the child is in-situation

In contrast to previous generations, children today are more experienced, connected and superiorly informed about the shopping process, increasing their influential power and inevitably their ability to exert greater influence on the purchase behaviour in the family unit (Berey & Pollay, 1968; Mau, Schramm-Klein & Reisch, 2014; Bradley & Nadeau, 2012; Haryanto et al, 2016; Calderon et al, 2017). The null hypothesis, H1a was rejected as constructed against its statistically significant measure displayed on Total Frequency. It was however found that when the Age_Child variable and Participation variables are added as independent variables on Total Frequency, a child's expert power remains significant, albeit limited. The older a child is, the greater the level of influence they have as they use negotiation tactics, whereas younger children are found to use enticing methods of influence (Sharma and Sonwaney, 2014; Calderon et al, 2017). The respondent profile of the sample used ranged within the seven (31.7%) and eight year (22.9%) old age grouping, characteristic of a younger age of child accounted for in the data analysis.

On a hierarchical regression analysis per store, interestingly, a child's expert power is significant in influencing the shopping frequency at Pick 'n Pay only even when participation in the loyalty programme is present. In contrast, a child's expert power is significant in influencing shopping frequency at Checkers in the absence of participation in the store loyalty programme and age of child, yet insignificant on the inclusion of participation in the store loyalty programme.

H1b: A child who has more knowledge about a loyalty programme, increases repeat patronage when they are not in-situation

H1b failed to reject as constructed against its statistically not significant measure displayed on Total Frequency. It was found that the degree of influence on Total Frequency reduced as independent variables Participation, Age_Child, Age_Parent and Education were included to the regression model.

Conclusion on Expert Power

The anticipated outcome based on the literature is that parents would be influenced by their child's expert power whether present or absent in the shopping situation, however, in sight of the outcome, the results suggest the interplay of active and passive social powers (Sit & Birch, 2014). Active social power is the influence that children knowingly exert, whereas passive social power is exertion of influence unknowingly (Sit & Birch, 2014). Studies (Flurry

& Burns, 2005; Sit & Birch, 2014; Sharma & Sonwaney, 2015) show that children that display active social power are more likely to yield positive results in influencing outcomes. This might be as a result of the child being fully cognizant of their behaviour and the result that they desire to yield. Arguably, this notion of active and passive power is contrasted against a parent's knowledge of the child's active or passive social power influence not being a determining factor, as is the positive or negative influencing strategy that the child employs to exert influence (Flurry & Burns, 2005; Anitha & Mohan, 2016). This concept of active and passive power continues to play itself out in the rest in the study's findings in that the child's Referent power and Coercive power to influence the shopping behaviour when they are not present in the buying situation, is not a predictor of shopping frequency.

Research shows that parents are open to children interacting with them in aiding the decision making process as they consider the knowledge and information that children possess to be of benefit to the purchase decision (Bradley & Nadeau, 2012; Sharma & Sonwaney, 2015; Calderon et al, 2017). The outcome of the results depicted as the studies have shown - a child's active power as reflected in the expert power of the child in the shopping experience and when the child is not present in the shopping environment, has the propensity to predict shopping frequency. Studies (Sharma and Sonwaney, 2014; Calderon et al, 2017) reflect that through the consumer socialisation process, children form habits from their past experiences, such as co-shopping with their parents (Haryanto et al, 2016; Calderon et al, 2017), and as a result a child tends to become more accustomed to retailers as preferred by their parents (Sharma and Sonwaney, 2014; Calderon et al, 2017).

Legitimate Power

H2a: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is in-situation

H2b: The more legitimate power perceived by the parent, the greater influence the child has in how the parent responds to a rewards scheme when the child is not in-situation

The hypotheses for Legitimate Power could not be tested due to them failing construct validity during CFA testing and as such being removed. Three items were used in testing the legitimate power of a child to influence shopping frequency when they are present in or absent from the shopping environment. The questions that were as of respondents in measuring this latent construct were:

“My child has the right to influence me when I make purchase decisions”

“My child should be involved in where I shop”

“I should accept my child's recommendations on where I shop”

Construct validity authenticates the fit of the items used in measuring their corresponding

latent constructs. Reflection on these raises concerns around social desirability on the part of the respondent to affirm the degree of influence their child's legitimate power has on where they shop. It is speculated that the items used invoke a strong connotation as a result of the word choice used and have social desirability biases. Considerate of the items being adapted from past studies, it is worth referencing that those studies were American-based, implemented in the northern and central regions of the southern state of the United States of America (USA). The role of different parental structures and parenting styles between USA and South Africa as well as differing standards of living are argued as potential contributing factors to why these items were not fit for measuring the latent construct Legitimate Power. Apart from this, extraneous variances such as demand characteristics and participant/person variable are also raised as factors that led to the construct failing construct validity;

- Demand characteristics which is when the participant is informed of the purpose of the research (i.e. the power of children in loyalty programmes) and an innate fear of an increase in child-targeted rewards schemes which will impact their shopping behaviour (McLeod, 2008);
- Participant/person variable which accounts for the mood, intelligence or education levels of respondents (McLeod, 2008);

Referent power

H3a: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is in-situation

Referent power is defined as the perceived level of influence in the family decision making process in their ability to command the desired behaviour (Dubois, Galinsky & Rucker, 2011). Three items were used to measure this latent construct:

“My child's feelings influence where I shop”

“My child feels valued when I shop where he or she prefers”

“My child feels approved when I shop where he or she prefers”

As a starting point, reflection is made on RP1 in which respondents were requested to answer on a 7-point Likert scale the question “My child's feelings influence where I shop”. This question in the context of when the child is in the shopping environment failed the loading criteria and was subsequently removed from the statistical tests conducted. Upon inspection of the question it is speculated that the strong-worded question could have invoked a feeling of fear of the parent showing the power that their child has over where they shop. It is further speculated that extraneous variances such as demand characteristics which is when the participant is informed of the purpose of the research (i.e. the power of children in loyalty programmes) nurturing an innate fear of an increase in child-targeted loyalty programmes which will impact their shopping behaviour; played a hand in the

question item loading <0.5 which implies that the items used to measure the construct was not suitable. Deeper insight into the source from which the question was adapted from reflects that referent power coefficient alpha's were aggregated against positive and negative influencing attempts; acknowledging that this measure (positive and negative influence) was not adopted in the current study. The study from which the question was adapted from was an American-based study in which the data was collected from public schools located in the northern and central regions of a southern state in the United States of America (USA) and entailed that both mothers and the child participate in the research study. It is assumed that social desirability in posing this question to respondents in a southern state in the USA is higher than that posed to the respondents captured in the current study, on the view that the parenting structure and parenting styles differ in the USA versus South Africa.

Referent power is the power that is linked to status is the power base that a child exerts based on their perceived level of influence in the family decision making process in their ability to command the desired behaviour (Rucker et al, 2011). Apart from the perceived level of influence as a derivative of their status, it can also be the degree with which a child wishes to identify with (Flurry & Burns, 2005; Goodrich & Mangleburg, 2010). Referent power which is linked to the influence of a child based on their social status or social identity, surprisingly resulted in being not significant in influencing Total Frequency or frequency at store level. Whilst there was no significant association of a child's referent power with the predictability of shopping frequency, the results from the hierarchical regression analysis at store level, do illustrate a closer level of significance at Pick 'n Pay than at Woolworths or Checkers. This was not anticipated in sight of Checker's being the store which offers a child-targeted rewards scheme, hence dispelling reverse socialisation.

Whilst the outcomes were unexpected, resulting in the rejection of the null hypothesis; parents are more likely to detect a child's use of referent power than a child is able to acknowledge their use of this type of power and hence respond to this power base accordingly, it is speculated that the parents knowledge of the child's power base in practise, places them in a favourable position and less likely to be influenced through reverse socialisation (Flurry & Burns, 2005; Bradley & Nadeau, 2012). Children influence their parents through the exercising of their referent power as it resonates with their social identity, formed through social comparison (Haryanto et al, 2016). As mentioned in expert power earlier in this chapter a child tends to become more accustomed to retailers as preferred by their parents (Sharma and Sonwaney, 2014; Calderon et al, 2017), hence it might be that referent power is not a resource used to influence purchase decisions

H3b: The effectiveness of communicating rewards scheme benefits to a child are only effective to the degree of the child's referent power when the child is not in-situation

The testing of this hypothesis was not possible due to the latent construct Referent Power failing construct validity and discriminant validity

“My child's feelings influence where I shop”

“My child feels valued when I shop where he or she prefers”

“My child feels approved when I shop where he or she prefers”

Cognisant of the view that Referent Power achieved construct validity and discriminant validity in measuring the Referent Power of the child when the child is present in the shopping environment, the fit of the items and inter-correlation between unrelated constructs respectively, was not flagged as an issues. Upon reflection of the questionnaire, it is assumed that respondent fatigue had potentially contributed to the outcome of the CFA results. An alternative view is that demand characteristics as mentioned earlier in the reasoning of Legitimate Power failing construct validity, could possibly returned the construct validity not being achieved.

In Discriminant validity which measures the patterns of inter-correlations amongst other unrelated latent constructs, it was observed that the intra-item correlation of Referent Power displayed lower coherence with each other and displayed more coherence with Reward Power. With this not being displayed in CFA for when the child is present in the shopping environment it is assumed that the results were due to respondent fatigue.

Respondent fatigue is flagged as a factor in view of the questionnaire including a total of forty two (42) items measuring all constructs, with Referent Power measured towards the latter part of the questionnaire.

Conclusion on Referent Power

Improved and more multicultural metrics are needed. It was foreseen that the referent power of a child would be significantly associated with the predictability of shopping frequency; however, with the hypothesis being rejected, it is possible that similar to Legitimate Power failing construct validity that extraneous variances such as demand characteristics and participant/person variable could have hampered these outcomes. A child tends to become more accustomed to retailers as preferred by their parents (Sharma and Sonwaney, 2014; Calderon et al, 2017). With this knowledge it is assumed that this power resource is not one that is used by children.

Reward Power

H4a: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is in-situation

H4b: The child is more likely to offer an exchange to their parents, for their parents to act on a rewards scheme when the child is not in-situation

Whereas Legitimate Power was removed due to the latent construct failing construct validity when the child is present in or absent from the shopping environment, Reward Power was removed due to it failing; discriminant validity when the child is present in the shopping environment and then failing construct validity and discriminant validity for when the child is not present in the shopping environment. Three items were used in testing the reward power of a child to influence shopping frequency when they are present in or absent from the shopping environment. The questions that were asked of respondents in measuring this latent construct were:

“I like to shop where my child wants me to shop because he or she may give me something nice for doing it”

“My child can provide me with special benefits if I shop where he or she prefers”

“When I shop at the place that my child prefers, I think that my child might do something for me in return”

In context of discriminant validity measuring patterns of inter-correlations amongst other unrelated latent constructs, it could be seen that Reward Power related closer to Coercive Power than it did on Reward Power. Simply put, the intra-item correlation of Reward Power displayed lower coherence with each other and displayed more coherence with Coercive Power. In applying thought to the items used in measuring Reward Power it could potentially be perceived that the wording stumbles on the measurement of Coercive Power in which both Power constructs imply a level of manipulation and pestering (Anitha & Mohan, 2016). Arguably, the influencing strategy adopted stumbles on the side of deceptive negotiating tactics and can be construed as a negative influencing strategy in exerting influence on parents purchasing behaviour (Flurry & Burns, 2005; Rucker et al, 2011).

Similarly to Legitimate Power, reflections on the fit of the above-mentioned items (construct validity) to measure the latent construct Reward Power, raises concerns around social desirability within the context of parental structures, parenting styles (Sharma & Sonwaney, 2014; Calderon et al, 2017) and extraneous variables such as demand characteristic and participation/person variable (McLeod, 2008).

Coercive power

H5a: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is in-situation

Coercive power considered a strong-arm approach in which punishment is expected to be the result for not complying with what the child's desired request (Flurry & Burns, 2005; Dubois, Galinsky & Rucker, 2011) adopts negative influencing strategies such as pestering, anger and crying (Berey & Pollay, 1968; Ulger B & Ulger G, 2012).

Question item CP1 "I may give in and shop where my child wants, to keep him or her from getting upset" failed the loading criteria in the first round of CFA in measuring the power of a child when the child is present in and absent from the shopping environment and as such was removed from the testing. As with RP1, mentioned earlier in this chapter, the question was adapted from the Flurry and Burns (2005) study which was implemented in thirteen public schools located in the northern and central regions of a southern state in the USA. It is assumed that the social desirability in asking such a question is better received in the USA as opposed to the South African consumer base. It is equally assumed that income levels, parenting structures and parenting styles could have also contributed to the item loading <0.5.

Whilst studies reveal that parents are less receptive to negative influencing strategies (Berey & Pollay, 1968; Ulger B & Ulger G, 2012), the change in lifestyles, such as longer working hours, an increase in working couples and increased exposure of children to media (Sharma and Sonwaney, 2014) adds complexity to this bargaining power in that parents are likely to conform to the child's request as a means to limit the time spent in-store and the emotional strain on the shopping experience. As a result of changing lifestyles in the home with more women working and increased co-shopping (Ulger & Ulger, 2012; Sharma and Sonwaney, 2014; Calderon et al, 2017) it was anticipated that children who exert coercive power within and/or outside of the buying situation are likely to act as a predictor of shopping frequency. The result of the analysis for Total Frequency did not reflect this anticipated outcome and instead reflected that coercive power is not significantly associated with the probability of shopping frequency and this correlates with the literature that displays that parents are less likely to conform to the child's request (Flurry & Burns, 2005; Bradley & Nadeau, 2012; Sharma and Sonwaney, 2014; Calderon et al, 2017). On the contrast, the hierarchical regression analysis conducted at store level presented that coercive power was significantly associated with the probability of shopping frequency at Woolworths only in the absence of participation in the loyalty programme.

This finding was unanticipated which required further exploration in understanding this finding. Upon reflection, the presence of the MySchool loyalty programme affiliated with Woolworths could be a causal factor in promoting the significant influence of a child's coercive power on frequency when the child is present in the shopping environment. This is further elaborated on later in this chapter with past researchers (Rosenbaum et al, 2005; Kang et al, 2015; Lee, Tsang & Pan, 2015; Beck, Chapman & Palmatier, 2015; Kang et al, 2015) supporting this finding. On a similar note, it is established on the assumption that Woolworths attracts a higher income consumer market. With reference to earlier literature references, income levels of parents play a role in the degree of influence a child has on purchase behaviour (Sharma and Sonwaney, 2014; Calderon et al, 2017). Whilst coercive power of a child has been frowned upon and not well received in the past, changing lifestyles have contributed to a change in this view (Sharma and Sonwaney, 2014; Calderon et al, 2017).

Inclusion of the independent variable Participation results in the child's coercive power not being significantly associated with the probability of shopping frequency at Woolworths. Although coercive power was significant in influencing shopping frequency at Woolworths, unexpectedly, it was not significant in influencing shopping frequency at Checkers which operated a short-term, child-targeted loyalty programme. These findings suggest that the respondents sampled and used in the study did not prove reverse socialisation and that consumer socialisation is still predominant.

H5b: If a child's coercive power is high and the child sees benefit in the reward scheme, the parent is likely to comply when the child is not in-situation

The null hypothesis failed to reject on the basis that it reflected no significance associated with the probability of Total Frequency or Frequency per store.

Conclusion on Coercive Power

An eye-ball testing of the responses, arguably noted what can be called respondent fatigue in which due to the length of the questionnaire, the respondent becomes tired of correctly articulating the question being asked and moves on to simply answering the question without any real thought. This respondent fatigue predominantly tends to rear its ugly head after the respondent is asked to answer based on the child not being present in the shopping environment and in some cases, it starts as early as after the expert power questions are passed, noting that there were nine question items presented for expert power with there being a total of eighteen items only for expert power; when considering that the same questions were asked of the respondent to answer when the child is not in the shopping

environment. Items pertaining to coercive power were at the end of the questionnaire and hence why it is postulated that respondent fatigue could have impacted the outcomes.

Summary on Power findings

Whilst the outcomes of expert power when the child is present were anticipated, the interplay of the power as an influencer against participation yielded very surprising results. The hypotheses to measure a child's referent power to influence frequency was rejected, however, literature cites that parents knowledge of the child's power at play places them in a more favourable position to ward against the influencing attempts made.

Despite coercive power being signalled as a negative influencing strategy that yields no influence on the parents, other researchers argues that the changing lifestyle of parents has impacted the degree of influence coercive power has as an influencing strategy. Mindful of this, the hypotheses was rejected in view of total frequency but proved to be significant in influencing shopping frequency at Woolworths, in the absence of participation of a loyalty programme.

The insignificant influence of the power of children when they are present during the shopping environment reflects that parents prefer to shop without the child in an attempt to avoid the influence of their child on their purchase power, what is also deemed pester power (Anitha and Mohan, 2016).

Loyalty

H6: Parents prefer to shop more often at shops with a rewards scheme that offers individual rewards schemes

Loyalty programmes which act as a customer retention tool used to stimulate customer loyalty through measures of repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), increase in basket size (Dawes et al, 2015) and a reduction in divided loyalty (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014), with a higher propensity to be less sensitive to competitor promotions (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014) are but a few measures of measuring the effectiveness of loyalty programmes. With this being noted, the study measured just one measure of loyalty programme effectiveness – repeat purchase behavior, otherwise also known as purchase frequency. This was measured through the tracking of shopping frequency at store level with individual targeted rewards schemes (Pick n Pay and Woolworths) with that of child-targeted rewards schemes (Checkers).

The physical capturing of the respondents questionnaires and eye-balling of the raw data, revealed that parents would either acknowledge participation in the store loyalty programme but would not assign shopping frequency at that store as either daily, weekly or monthly. Similarly, respondents marked shopping frequency as daily, weekly and/or monthly but would not indicate their participation in the store loyalty programme. This raises the question on whether the parents identify with the store's loyalty programme and more specifically identify with the Checkers Little Brands promotion (as a short-term loyalty programme, termed rewards scheme in the questionnaire), with the intention of promoting the same measures of loyalty programmes; that being repeat purchase behaviour; increase in basket size and a decrease in divided loyalty – to name but a few measures. It can be evidenced that the failure to pilot the questionnaire among a small sample group of the target population could have picked up the potential ambiguity and lack of identification with the respondents of Checkers Little Brands as a loyalty programme. It was assenting to have found that participation in a loyalty programme promotes patronage irrespective of whether the loyalty programme is individually-targeted or child-targeted. The hierarchical regression model based on the dependent variable Store Frequency, tested against the independent variables of Power, Participation and Age_Child, revealed an association between store patronage and participation in a loyalty programme, which superseded a child's power influence whether present in or absent from the shopping location. Closer inspection on the findings are reproduced and discussed at store level.

Pick 'n Pay

The outcome of the hierarchical regression model exhibited (see Table 35) that the inclusion of the independent variable Participation returned an improvement on the influence of independent variables Power, Age_Child and Participation on Store Frequency.

Table 35: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.115 ^a	0.013	0.006	0.716
2	.116 ^b	0.013	0.003	0.717
3	.442 ^c	0.195	0.180	0.650

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

The improvement on the R² value from 0.013 (1.3%) to 0.195 (19.5%) displays that there is less ability to explain the noise in the data through the introduction of more variance.

Analysis of the coefficients table, reproduced earlier in Chapter 4 of this report, identified that there were no powers that influenced frequency at Pick 'n Pay in the absence or presence of Participation. This contrasted against the respondent profile of Pick 'n Pay customers reproduced below, Table 36 illustrates a high attendance of respondents at Pick 'n Pay in comparison to the other stores, Woolworths and Checkers. So it is clear that the loyalty scheme, aimed at an individual level, is effective through measures of repeat-purchase behaviour (Sharp & Sharp, 1997; Henderson et al, 2011; Hu et al, 2014). This could be that the decision maker of the consumer household buying centre is targeted. On closer reflection of the Smart Shopper loyalty programme, it can be found that hard, monetary loyalty benefits are offered to customers. Hard benefits are typically classified as rewards-based in which points of cash are earned and accumulated and/or special discounts are extended (Lee et al, 2015; Kumar & Reinartz, 2016).

Table 36: Geographical mapping of stores within a 5km radius of public schools used in the study

	Frequency_PP	Frequency_WW	Frequency_CH
Daily	15.9%	6%	8.6%
Weekly	53.4%	31.1%	39%
Monthly	26.5%	33.7%	29.3%
Not at all	4.2%	29.3%	23.1%

The assumption made on the lack of significance of the powers to influence frequency at Pick 'n Pay can be alluded to the matter of convenience, centred on location. The store locations of Pick 'n Pay within a 5km radius of the schools used as a vehicle for data collection was probed. With reference to the below table, Table 37 represents the number of Pick 'n Pay stores located within a 5km radius of the schools used in collection the data, as sourced via Google Maps:

Table 37: Geographical mapping of stores within a +/-7km radius of public schools used in the study

	Pick 'n Pay	Woolworths	Checkers
Hurllyvale Primary School	4	4	3
MW de Wet Primary School	4	4	3
Eastleigh Primary School	4	4	3
Edenglen Primary School	4	4	3
Bedfordview Primary School	3	2	2

As referenced earlier in Chapter 2, the potential effect for a retailer whose customer concludes that the proposition of the loyalty programme is of the highest value, is the transformation of actions into attitude (loyalty and satisfaction) and behavioural (customer lifetime value and customer loyalty) aspects (Kim, Lee & Park, 2014; Melnyk & Bijmolt, 2015; Kumar & Reinartz, 2016). The pressure to increase rewards or points earned (hard benefits) motivate an incline in purchase rates (Sharp & Sharp, 1997; Yoo & Bai, 2013; Steinhoff & Palmatier, 2014; Lee et al, 2014; Dawes et al, 2015). It is assumed that given that Pick 'n Pay and Woolworths stores are located in equal proportion, the link of participation in the loyalty programme and frequency is linked to the perceived value that the customer obtains at Pick 'n Pay.

Woolworths

The hierarchical regression model for Woolworths portrayed 47.6% of the dependent variable Dep1_1WWFreq could be explained by the independent variables Power, Age_Child and Participation. A review of the model reflected less ability to explain the noise in the data through the introduction of more variance raising the model's explanation on frequency at Woolworths from 2.7% (Model 1: Powers) to 3.0% (Model 2: Powers and Age_Child) to 47.6% (Model 3: Power, Age_Child and Participation).

As depicted in earlier sections of this report, Chapter 4, the coefficients reflected that Coercive Power when the child is present in the shopping environment is statistically significant in influencing frequency at Woolworths but not significant when the variable Participation is included into the model. It can be seen based on the results that similarly to Pick 'n Pay, the loyalty programme of Woolworths is significant in influencing store frequency of Woolworths. Thus loyalty programmes work; the particularly high R^2 could be due to the effectiveness of the Woolworths programme, which, unlike other reward schemes is both linked to a social/family good through MySchool, it is also highly customised, with individuals receiving tailored specials. Research calls for loyalty programmes to strengthen or establish stronger emotional or affective bonds with consumers through social aspects such as including a sense of community or increase perceptions of overall value (Kang et al, 2015). The study by Rosenbaum, Ostrom, & Kuntze (2005) termed the Woolworths and MySchool partnership as communal loyalty programmes and defined it as “organizational sponsored loyalty programs that transfer support from organizations to members by providing them with a sense of community” (p.223). Customers of communal loyalty programmes are less prone to switching between competing company's on the basis that they have a strong emotional bond with the company – displaying stronger loyalty (Rosenbaum et al, 2005; Kang et al, 2015; Lee, Tsang & Pan, 2015).

Beck, Chapman and Palmatier (2015), looked at it from the context of communal-based mechanisms and found that communal-based relationship marketing mechanisms are typically effective in countries where cultural feminism and inequality is relatively high. Contextually, South Africa is a country with a high Gini-coefficient (World Economic Forum, 2017), indicative of high inequality level. The findings by Beck et al (2015) support the findings of the present study.

As cited earlier in this chapter, Coercive Power showed significance in influencing store frequency at Woolworths. Exploration into understanding this outcome resulted in the following assumptions:

- Woolworths being partnered with the MySchool loyalty programme;
- Woolworths attracting a higher income customer, which is a factor that increases the influential impact of Coercive Power in influencing purchase decisions

Checkers

As a point of reference, it is prominent that frequency at Checkers (Daily: 8.6%; Weekly: 39%; Monthly: 29.3%; Not at all: 23.1%) competes with frequency at Woolworths (Daily: 6%; Weekly: 31.1; Monthly: 33.7%; Not at all: 29.3%), however, in sight of participation responses, reproduced from earlier parts in this report and tabled below (Table 38), it can be seen that there is a lower degree of participation in the loyalty programme at Checkers.

Table 38: Participation in Rewards Schemes

	Participation_PP	Participation_WW	Participation_CH
Yes	91%	58%	41.2%
No	9%	42%	58.8%

This is contextualised around store location within a 5km radius of the schools surveyed, which as depicted in an earlier section and reproduced here (Table 39) reflected:

Table 39: Geographical mapping of stores within a +/-7km radius of public schools used in the study

	Pick 'n Pay	Woolworths	Checkers
Hurlyvale Primary School	4	4	3
MW de Wet Primary School	4	4	3
Eastleigh Primary School	4	4	3
Edenglen Primary School	4	4	3
Bedfordview Primary School	3	2	2

Expert Power when the child is present was the only power that proved significant for frequency at Checkers but in the absence of participation in the loyalty programme. Rosenbaum et al (2005) comment that patronage at stores that operate loyalty programmes could be related to located, amongst other factors such as operating hours, shopping variety and price.

Summary on Loyalty findings

In context of the Powers, it is noteworthy to comment on the insignificance of the Power constructs on shopping frequency when there is participation acknowledged in the store loyalty programme. Checkers reward programme did drive frequency; hence its “child only” strategy has worked. This reflects that the targeting of children as a cross-customer effect marketing approach does act as a differentiator for loyalty programmes. It is important to highlight that the data analysis did not account for the number of loyalty programmes that the respondents on average belonged to, however, eye-balling of the hard copy questionnaires reflected that consumers are on average associated with on average more than one loyalty programme.

In attempting to defend and/or explain the findings, past the identified lack of piloting which could have potentially flagged the lack of identification with parents of the term ‘Checker’s Little Brands rewards scheme’, it is speculated that some extraneous variables could have impacted the outcome of these results, such as:

- Fear of the parent showing the power that their children have over their shopping behaviour;
- Demand characteristics which is when the participant is informed of the purpose of the research (i.e. the power of children in loyalty programmes) and an innate fear of an increase in child-targeted rewards schemes which will impact their shopping behaviour;
- Participant/person variable which accounts for the mood, intelligence or education levels of respondents;
- Location of stores, ease of shopping and familiarity (Haryanto et al, 2016)
- Familiarity with child-targeted rewards schemes and the negative impact on their spend thresholds

Upon further inspection on the questions included in the data measurement instrument, it was found that income levels to measure spend propensity and location of stores in relation to shopping frequency was not asked of the respondents, identified as influential variables (Sharma & Sonwaney, 2014; Calderon et al, 2017). The belief is that these are key variables that were excluded from the study and hence provide greater insight into the findings of the

study.

In a similar light, the use of public schools as a data collection vehicle has the propensity to limit findings based on the assumption that the income levels of parents whose children attend public school is limited and hence the child-targeted Checkers Little Brands rewards scheme might not have been within their affordability range. Arguably, the inclusion of respondents from parents of children aged between 7 – 11 years of age, attending private schools, might have provided a different outcome on the variables that have a propensity to predict shopping frequency (Calderon et al, 2017). Questionably, the affordability range of parents whose children are in private schools are more likely to be persuaded (Sharma & Sonwaney, 2014; Calderon et al, 2017) by their child's age and/or gender of the child and hence it is assumed that the inclusion of this group in the sample population is likely to have yielded different results. In addition, the inclusion of private schools as a vehicle for data collection would have afforded the researched to analyse whether there is a significant difference between the influencing power of children based on whether they attend a public or private school. On the topic of education, it is assumed that the education levels of the parents whose children attend private schools are likely to be higher than those parents whose children attend public schools (Calderon et al, 2017). With identifying the major flaw in the study, in the exclusion of those parents whose children attend private schools, it is recommended for future studies that the target population be increased to include those whose children attend private schools.

The above regression results speak to the success of loyalty programmes in driving store patronage outside of the power of children. It can however be seen from the R^2 values that the loyalty programmes of Checkers and Woolworths are more effective in promoting patronage. Further exploration on Pick 'n Pay frequencies could be attributed to location and convenience, which is extraneous variances, not accounted for in this study, but identified as functional aspects of loyalty by Haryanto et al (2016). In sight of the geographical collection of the data, the below table displays a list of the stores within a 10km radius of the schools used to survey parents:

Core findings

The fundamental outcomes from the study revealed that granted that traditional factors such as location and convenience play a role in encouraging store patronage; behaviour can similarly be explained by the presence of a loyalty programme. The expert power of a child is influential in endorsing shopping frequency at a store, however, a child's knowledge and experience is superseded by that of the presence of a loyalty programme. This reveals that reverse socialisation is prevalent to a degree but that loyalty programmes designed for the parent still remains the underpinning reason for patronage. This displays the effectiveness of

loyalty programmes, which have been argued by past researchers. Considerate of this finding, loyalty programmes that are directed at children are equally as successful in promoting store patronage as evidenced by the findings with the frequency at Checkers which operates a loyalty programme that is targeted at the child only. This supports the overarching hypothesizing that the targeting of children as a cross-customer effect marketing approach acts as a differentiator for loyalty programmes. Supportive of this is the significance of a child's coercive power at Woolworths. Woolworths operates a personalised loyalty programme that is directed at parents, however, it is also affiliated with a child/community loyalty programme MySchool. The discoveries pertaining to Woolworths patronage depicted the highest level of frequency being explained by the variables Power, Age_Child and Participation. Whilst none of the powers were significant on inclusion of participation in the loyalty programme, the coercive power of the child was significant outside of this variable.

Chapter 6

Conclusion

The objective of the study was to measure the effectiveness of a cross-customer effect in loyalty programmes as a differentiator for loyalty programmes. The intent herein was to explore whether children as a cross-customer effect approach would yield effective loyalty programme measures, as measured on the metric of purchase frequency. In support of this intent, the social power of children to act as influencing agents of parents purchase behaviour was measured as a means of understanding which power base of children were more influential on parents shopping frequency. The study focused on parents who had children aged between 7 – 11 years of age, as aligned with the analytical stage of Piaget's Theory of Cognitive Development. In support of a quantitative data collection process being adopted for the study, the data collection vehicle used to reach parents who had children aged between 7 – 11 years of age was through public schools in the North Eastern parts of Johannesburg. Five schools participated in the data collection with over 1000 responses being received. Due to the physical capturing of physical questionnaires impacting data analysis timelines, a decision was made by the researcher to apply sample quoting of a total of 600 usable responses. Post the data clean-up, a total of 508 responses were used. With the use of a statistician, the data was scrubbed to account for missing values and outliers. Internal consistency checks were conducted through factor analysis and Cronbach Alpha measurements, in which three out of five constructs were measured, that being expert power, referent power and coercive power for when the child is present in the shopping environment. Legitimate Power failed construct validity in CFA testing and Reward power reflected on other constructs, hence failing on discriminant validity; hence these variables being removed from analysis. In analysing when the child is not present in the shopping environment, only two constructs, Expert Power and Coercive Power was tested. In addition to the above exclusions, Referent Power failed construct validity and discriminant validity for when the child is not present in the shopping environment.

In presenting a brief outline of the objective of the study, sample unit, methodology research and design, concluding with the data statistical analyses, the principle findings of the study are elaborated on in the following section. A look into the different hypotheses and their outcomes is presented as a concluding point, leading to implications for management, identifying research limitations and a recommendation for future research on this subject matter.

Principle findings

A call for differentiation in loyalty programmes to curb polygamous loyalty and inculcate increased switching barriers and attitudinal barriers to exit, an outlook on children, framed around their social power, is explored to understand their influence on parents purchase behaviour – measured through shopping frequency metrics. The study in itself poses to demonstrate reverse socialisation, through the means of a cross-customer effect approach.

The principle findings from the current study is that a child's Expert Power and Coercive Power play a role in influencing purchase behaviour of parents. It was established that loyalty programmes do work and that participation in loyalty programmes supersede a child's power to influence purchase behaviour. Woolworths, interestingly, which is affiliated with a community based loyalty programme, MySchool as well as hosting its own personalised loyalty programme works the best, evidenced by the largest level of patronage being explained in this way. Further to the above-mentioned findings, traditional factors such as location and convenience remain significant factors in influencing where a parent shops but behaviour and patronage can equally be explained by loyalty programmes.

Checkers who exhibited the lowest store patronage from the sample used demonstrated that a child only scheme does secure loyalty and is significant in influencing frequency at the store. This finding supports the current study's intent to display that children as a cross-customer effect approach would yield effective loyalty programme measures, acting as a differentiator for loyalty programmes.

Implications for management

Factors such as location and convenience do play a role in store patronage, however, the effectiveness of loyalty programmes do equally promote patronage. Whilst it is observed that personalised loyalty programmes are successful, child only loyalty programmes similarly influence store patronage. With the increasing influence of children on purchase behaviour, loyalty programme practitioners are urged to promote this evolution in changing socialisation through one or more of the following approaches:

- Design loyalty programmes around the social context of the individual member;
- Inclusion of benefits that are child-related;
- Promoting a culture of co-shopping with parents who have children;
- Increasing knowledge and experience amongst children by extending member engagement to include children;
- Stimulate partnerships with community-based, child centered loyalty programmes

The adoption of children as a cross-customer effect marketing approach for loyalty programme practitioners' entails that databases need to be transformed to include children

as influential agents in promoting effective loyalty programmes. Established on the findings from the current study, loyalty programme practitioners might want to think of communicating loyalty programme benefits that can be perceived as a benefit to the child by possibly adjusting target audiences to include a benefit for the child. An example of this would for instance, a Pick n Pay Smart Shopper practitioner communicating programme benefits that could equally be beneficial to the child. One of the benefits of Smart Shopper is that a Smart Shopper (Yoo & Bai, 2013) customer can redeem their Smart Shopper points for movie tickets.

Limitations of the research

As identified in Chapter 3 and further expanded upon in Chapter 5, the following limitations of the current study have been acknowledged:

- Failure to pilot the questionnaire prior to the final collection of data;
- Failure to include demographic measures such as income levels, family structure (two-parent versus single parent households) and the number of children in the household (Sharma & Sonwaney, 2014; Calderon et al, 2017);
- Exclusion of structural factors such as both parents in the home, single parent homes or step and half siblings (Rucker, Galinsky, & Dubois, 2011; Sharma & Sonwaney, 2014)
- The interplay of demand characteristics (McLeod, 2008) as respondents' may feel the need to show control over their shopping behaviour and hence not be truthful about their perceptions on their child's influence on where they shop (Berey & Pollay, 1968; Flurry & Burns, 2005);
- Sampling method bias as supported by only public schools being used as a vehicle for data collection and excluding private schools as a vehicle, thereby raising questionability in the representability of the South African market;
- Due to public schools being used as a vehicle for data collection and coupled with the lack of piloting, respondents might not have been in a position to interpret the questions represented by the level of education;
- The complexities and multiple influences of loyalty to retail grocery stores – from price to the all-important location (Rucker, Galinsky, & Dubois, 2011; Sharma & Sonwaney, 2014; Anitha & Mohan, 2016; Haryanto et al, 2016

Suggestions for future research

The significant difference acknowledged by Calderon et al (2017) between parents perceptions of a child's influence and what is observed, leapfrogs the suggestion of an extension on this study based on a mixed data collection methodology – quantitative data collection measuring parents perception of child's influence contrasted with the qualitative

data collection that would measure the observed influence and provide further context on these studies findings. According to Calderon et al, 2017; “self-reports are not an accurate representation of behaviours” (Calderon et al, 2017 p. 9). In addition to this, missing variables such as income, location and influencing strategies employed by children in influencing parents purchase behaviour. In addition to this, it is recommended that the vehicle for data collection be expanded to include private schools and that this be tracked in the data to be able to measure whether income levels are statistically significant in the child’s influence on the parents purchase behaviour, particularly in child-targeted rewards schemes. Supplementary to the above-mentioned research propositions, it is suggested that spend levels at retailers that have a child-targeted rewards scheme, be used as secondary data and measured against periods where there is no child-targeted rewards scheme in place.

Closing statement

The presence of a loyalty programme superseding that of the expert power influence of the child exposes the prominence of individual-targeted and child-targeted loyalty programme benefits. It becomes evident that in the presence of participation in a loyalty programme, reverse socialisation near does not occur and that the influence of the child is only prominent based on their knowledge, awareness and understanding of the loyalty programme. Worth however identifying is that past researchers have recognized that what parents report in terms of their child’s influencing power and what is observed is markedly different and hence this propels future suggested research in this field – a field which warrants much more consideration.

The recent rise in loyalty programmes as a customer retention marketing strategy for the purpose of ensuring future income flows (Sharp & Sharp, 1997) has seen businesses funding benefits to polygamous customers. In light of this, the question of loyalty is questioned as is the effect of loyalty programmes. The need for a new approach to this sphere of marketing with a differentiated market position was one worth exploring framed with the objective of identifying a specific differentiator. The influence of children on family decision making and/or purchasing behaviour in driving repeat purchases and brand loyalty formed the intent of the study conducted, revealing that a child’s expert power is influential however when the loyalty programme is added, the loyalty programme supersedes the expert power influence on the part of the child to an almost insignificant position on the influence on shopping frequency.

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Appendices

Appendix 1: Certification of Data Analysis Support

I hereby certify that:

- I retained the services of a statistician in running the data analysis for my research report:

.....
If a statistician was retained – please supply contact name and details of said statistician:

Name: Christiaan Storm
Email address: chris.str@hotmail.com
Contact number: 079 495 8067

Name: Kerry Chipp
Email address: chippk@gibs.co.za
Contact number: 082 330 88759

I hereby declare that all statistical interpretations/ analysis and write-up of the results for my study was completed by myself without outside assistance

Name of student: Kinola Pather
Student number: 16391323
Student email address: kinola.pather@gmail.com

Appendix 2: Questionnaire

Dear Parent,

My name is Kinola Pather and I am conducting research for my MBA thesis on the power of children aged between 7 – 11 years of age to impact where their parents shop within the framework of loyalty programmes. If you are a parent who has a child aged between 7 – 11 years of age and actively participate in loyalty programmes, your kind cooperation in completing the survey distributed via your child’s school will be of great assistance in my study. Your participation is completely voluntary and you can withdraw at any time without penalty. The completion of this survey should take no more than 15 minutes of your time. Of course, all data will be reported anonymously. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Kinola Pather
 Email: 16391323@mygibs.co.za
 Phone: 081 720 5486

Research Supervisor: Kerry Chipp
 Email: chippk@gibs.co.za
 Phone: 011 771 4000

By completing the survey, you indicate that you voluntarily participate in this research.

Questionnaire

1. Please tick the appropriate box that explains your relationship to the child:

	Yes	No
Mother		
Father		
Step-mother		
Step-father		
None of the above		

2. What is your highest level of education:

	Tick box
Primary school	
Secondary school	
Bachelor degree	
Honours degree	
Masters/PHD	

3. Please tick the appropriate age group which pertains to your age:

	Tick box
20 – 25	
26 – 30	
31 – 35	
36 – 40	
41+	

4. Please confirm that you have children aged between 7 – 11 years of age

	Tick box
7 years of age	
8 years of age	
9 years of age	
10 years of age	
11 years of age	
Older than 11 years of age	

5. Please tick the gender of your child or children aged between 7 – 11 years of age only

	Tick box
Daughter	
Son	

6. Which of the following rewards scheme do you participate in?

	Tick box
Pick n Pay Smart Shopper	
Woolworths WRewards	
Checkers Little Brands	

7. How often do you visit the following stores?

	Daily	Weekly	Monthly	Yearly	Less often	Not at all
Pick n Pay						
Woolworths						
Checkers						

8. For the following questions, think about occasions when you would shop with your child

		Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree
1	My child knows best about the Pick n Pay Smart Shopper reward scheme							
2	My child knows best about the Woolworths WRewards reward scheme							
3	My child knows best about the Checkers Little Brands reward scheme							

		Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree
4	My child has a lot of experience with the Pick n Pay Smart Shopper rewards scheme							
5	My child has a lot of experience with the Woolworths WRewards rewards scheme							
6	My child has a lot of experience with the Checkers Little Brands rewards scheme							
7	My child knows more about the Pick n Pay Smart Shopper rewards scheme than I do							
8	My child knows more about the Woolworths WRewards rewards scheme than I do							
9	My child knows more about the Checkers Little Brands rewards scheme than I do							
10	My child has the right to influence me when I make purchase decisions							
11	My child should be involved in where I shop							
12	I should accept my child's recommendations on where I shop							
13	My child's feelings influence where I shop							
14	My child feels valued when I shop where he or she prefers							

		Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree
15	My child feels approved when I shop where he or she prefers							
16	I like to shop where my child wants me to shop because he or she may give me something nice for doing it							
17	My child can provide me with special benefits if I shop where he or she prefers							
18	When I shop at the place that my child prefers, I think that my child might do something for me in return							
19	I may give in and shop where my child wants, to keep him or her from getting upset							
20	My child may make things difficult if I don't shop where he or she prefers							
21	My child can make being around him or her distasteful if I don't shop where they prefer							

9. For the following 4 questions, think about occasions when you would shop without your child

		Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree
1	My child knows best about the Pick n Pay Smart Shopper reward scheme							

		Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree
2	My child knows best about the Woolworths WRewards reward scheme							
3	My child knows best about the Checkers Little Brands reward scheme							
4	My child has a lot of experience with the Pick n Pay Smart Shopper rewards scheme							
5	My child has a lot of experience with the Woolworths WRewards rewards scheme							
6	My child has a lot of experience with the Checkers Little Brands rewards scheme							
7	My child knows more about the Pick n Pay Smart Shopper rewards scheme than I do							
8	My child knows more about the Woolworths WRewards rewards scheme than I do							
9	My child knows more about the Checkers Little Brands rewards scheme than I do							
10	My child has the right to influence me when I make purchase decisions							
11	My child should be involved in where I shop							

		Strongly disagree	Disagree	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree	Strongly agree
12	I should accept my child's recommendations on where I shop							
13	My child's feelings influence where I shop							
14	My child feels valued when I shop where he or she prefers							
15	My child feels approved when I shop where he or she prefers							
16	I like to shop where my child wants me to shop because he or she may give me something nice for doing it							
17	My child can provide me with special benefits if I shop where he or she prefers							
18	When I shop at the place that my child prefers, I think that my child might do something for me in return							
19	I may give in and shop where my child wants, to keep him or her from getting upset							
20	My child may make things difficult if I don't shop where he or she prefers							
21	My child can make being around him or her distasteful if I don't shop where they prefer							

-----Thank you for taking the time to complete this questionnaire-----

Kindly return this completed questionnaire to your child's teacher either yourself or via your child by no later than the 18th of August 2017

Appendix 3: Statistical Analysis Reports

Appendix 3.1 When the child is present in the shopping environment

Confirmatory Factor Analysis

Latent Variable	Indicator Coding	Input		Loading criteria	VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	Input		Composite Reliability (CR)	CR/Rull of the tumb	Delta (CR - Alpha)	Construct Validity Result
		Loadings						ALPHA					
Expert power	EP1	0.706	Loading > 0.7		0.545	VE<0.5	Yes	0.856	0.915	CR>0.7	CR is larger than Alpha	Construct Validity is achieved	
	EP2	0.759	Loading > 0.7										
	EP3	0.779	Loading > 0.7										
	EP4	0.736	Loading > 0.7										
	EP5	0.804	Loading > 0.7										
	EP6	0.800	Loading > 0.7										
	EP7	0.691	0.5<Loading < 0.7- caution is required										
	EP8	0.719	Loading > 0.7										
	EP9	0.633	0.5<Loading < 0.7- caution is required										
Legitimate power	LP1	0.418	Loading < 0.5		0.214	VE<0.5	Yes	0.822	0.469	CR<0.6	Alpha is larger than CR	Construct Validity is not achieved	
	LP2	0.476	Loading < 0.5										
	LP3	0.485	Loading < 0.5										
Referent power	RP1	0.485	Loading < 0.5		0.460	VE<0.5	Yes	0.89	0.711	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved	
	RP2	0.770	Loading > 0.7										
	RP3	0.742	Loading > 0.7										
Reward power	RWP1	0.717	Loading > 0.7		0.494	VE<0.5	Yes	0.913	0.744	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved	
	RWP2	0.768	Loading > 0.7										
	RWP3	0.616	0.5<Loading < 0.7- caution is required										
Coercive power	CP1	0.452	Loading < 0.5		0.438	VE<0.5	No	0.874	0.691	0.6< CR < 0.7	Alpha is larger than CR	Construct Validity is not achieved	
	CP2	0.759	Loading > 0.7										
	CP3	0.730	Loading > 0.7										

Convergent-Discriminant Validity Matrix					
	Expert power	Legitimate power	Referent power	Reward power	Coercive power
Expert power	0.545				
Legitimate power		0.214			
Referent power			0.460		
Reward power				0.494	
Coercive power					0.438
	We have Discriminant Validity	We have Discriminant Validity	We have Discriminant Validity	We have Discriminant Validity	We don't have Discriminant Validity

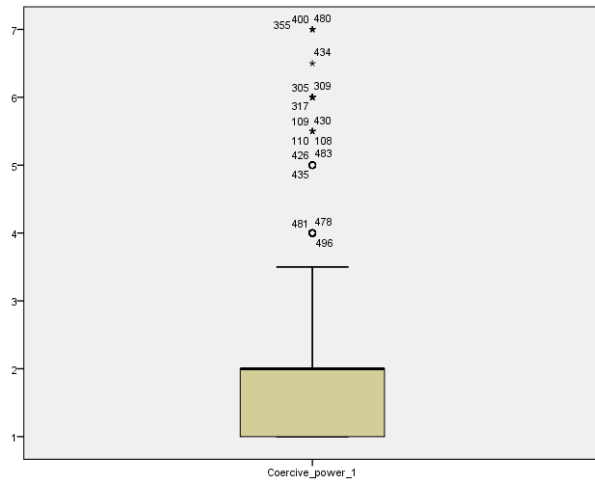
Latent Variable	Indicator Coding	Input		Loading criteria	VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	Input		Composite Reliability (CR)	CR/Rull of the tumb	Delta (CR - Alpha)	Construct Validity Result
		Loadings						ALPHA					
Expert power	EP1	0.706	Loading > 0.7		0.545	VE<0.5	Yes	0.856	0.915	CR>0.7	CR is larger than Alpha	Construct Validity is achieved	
	EP2	0.759	Loading > 0.7										
	EP3	0.779	Loading > 0.7										
	EP4	0.736	Loading > 0.7										
	EP5	0.804	Loading > 0.7										
	EP6	0.800	Loading > 0.7										
	EP7	0.691	0.5<Loading < 0.7- caution is required										
	EP8	0.719	Loading > 0.7										
	EP9	0.633	0.5<Loading < 0.7- caution is required										
Referent power	RP2	0.737	Loading > 0.7		0.543	VE<0.5	Yes	0.924	0.704	CR>0.7	Alpha is larger than CR	Construct Validity is achieved	
	RP3	0.737	Loading > 0.7										
	RP1	0.706	Loading > 0.7										
Reward power	RWP1	0.706	Loading > 0.7		0.488	VE<0.5	No	0.913	0.665	0.6< CR < 0.7	Alpha is larger than CR	Construct Validity is not achieved	
	RWP2	0.706	Loading > 0.7										
	RWP3	0.726	Loading > 0.7										
Coercive power	CP2	0.726	Loading > 0.7		0.527	VE<0.5	Yes	0.92	0.690	0.6< CR < 0.7	Alpha is larger than CR	Construct Validity is not achieved	
	CP3	0.726	Loading > 0.7										

Convergent-Discriminant Validity Matrix					
	Expert power	Referent power	Reward power	Coercive power	
Expert power	0.545				
Referent power		0.359	0.543		
Reward power			0.496	0.498	
Coercive power				0.544	
	We have Discriminant Validity	We have Discriminant Validity	We don't have Discriminant Validity	We have Discriminant Validity	

Data checking and outlier exclusion

Case Processing Summary

	Cases							
	N	Valid		N	Missing		Total	
		Percent	Percent		Percent	Percent	N	Percent
Expert_power_1	502	100.0%		0	0.0%	502	100.0%	
Referent_power_1	502	100.0%		0	0.0%	502	100.0%	
Coercive_power_1	502	100.0%		0	0.0%	502	100.0%	



Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Expert_power_1	502	100.0%	0	0.0%	502	100.0%
Referent_power_1	502	100.0%	0	0.0%	502	100.0%
Coercive_power_1	502	100.0%	0	0.0%	502	100.0%

Descriptives

		Statistic	Std. Error	
Expert_power_1	Mean	3.0653	0.05651	
	95% Confidence Interval for Mean	Lower Bound	2.9543	
		Upper Bound	3.1763	
	5% Trimmed Mean	3.0283		
	Median	3.0000		
	Variance	1.603		
	Std. Deviation	1.26624		
	Minimum	1.00		
	Maximum	6.67		
	Range	5.67		
	Interquartile Range	2.00		
	Skewness	0.203	0.109	
	Kurtosis	-0.488	0.218	
	Referent_power_1	Mean	4.0199	0.08080
95% Confidence Interval for Mean		Lower Bound	3.8612	
		Upper Bound	4.1787	
5% Trimmed Mean		4.0221		
Median		4.0000		
Variance		3.277		
Std. Deviation		1.81026		
Minimum		1.00		

	Maximum		7.00	
	Range		6.00	
	Interquartile Range		3.50	
	Skewness		-0.206	0.109
	Kurtosis		-1.102	0.218
Coercive_power_1	Mean		1.9871	0.05660
	95% Confidence Interval for Mean	Lower Bound	1.8759	
		Upper Bound	2.0983	
	5% Trimmed Mean		1.8358	
	Median		2.0000	
	Variance		1.608	
	Std. Deviation		1.26811	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.00	
	Skewness		1.613	0.109
	Kurtosis		2.331	0.218

M-Estimators

	Huber's M-Estimator ^a	Tukey's Biweight ^b	Hampel's M-Estimator ^c	Andrews' Wave ^d
Expert_power_1	3.0427	3.0229	3.0389	3.0233
Referent_power_1	4.1055	4.0813	4.0550	4.0812
Coercive_power_1	1.7697	1.7189	1.8272	1.7161

a. The weighting constant is 1.339.

b. The weighting constant is 4.685.

c. The weighting constants are 1.700, 3.400, and 8.500

d. The weighting constant is $1.340 \cdot \pi$.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Expert_power_1	1.0000	1.0000	2.0000	3.0000	4.0000	4.6667	5.3000
	Referent_power_1	1.0000	1.0000	2.0000	4.0000	5.5000	6.0000	7.0000
	Coercive_power_1	1.0000	1.0000	1.0000	2.0000	2.0000	4.0000	5.0000
Tukey's Hinges	Expert_power_1			2.0000	3.0000	4.0000		
	Referent_power_1			2.0000	4.0000	5.5000		
	Coercive_power_1			1.0000	2.0000	2.0000		

Extreme Values

		Case		Value
		Number		
Expert_power_1	Highest	1	482	6.67
		2	277	6.22
		3	487	6.11
		4	488	6.11
		5	305	6.00 ^a
	Lowest	1	494	1.00
		2	465	1.00
		3	455	1.00
		4	439	1.00
		5	401	1.00 ^b
Referent_power_1	Highest	1	57	7.00
		2	58	7.00
		3	68	7.00
		4	88	7.00
		5	138	7.00 ^c
	Lowest	1	497	1.00
		2	472	1.00
		3	469	1.00
		4	463	1.00
		5	460	1.00 ^b
Coercive_power_1	Highest	1	355	7.00
		2	400	7.00
		3	480	7.00
		4	434	6.50
		5	150	6.00 ^a
	Lowest	1	500	1.00
		2	497	1.00
		3	495	1.00
		4	494	1.00
		5	493	1.00 ^b

a. Only a partial list of cases with the value 6.00 are shown in the table of upper extremes.

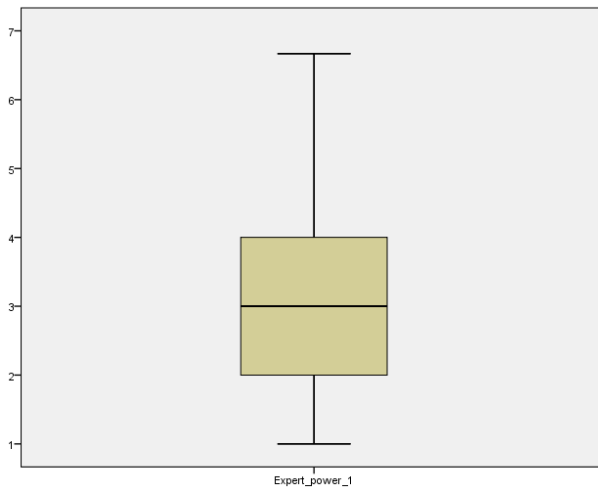
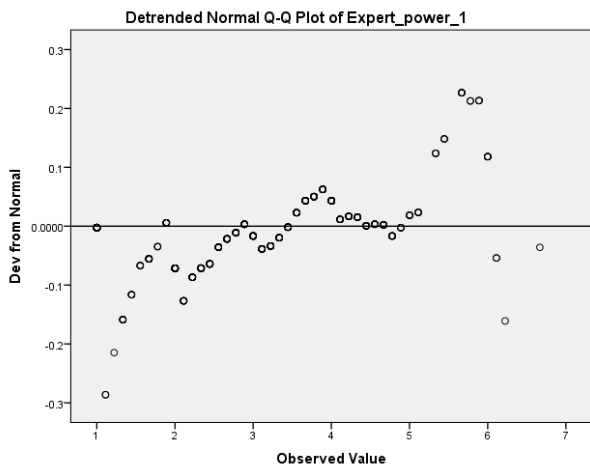
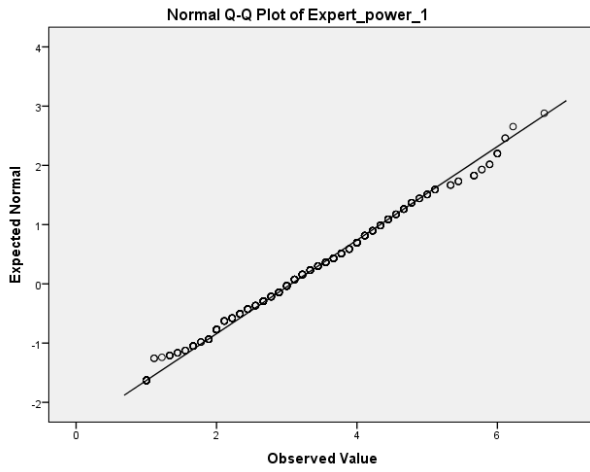
b. Only a partial list of cases with the value 1.00 are shown in the table of lower extremes.

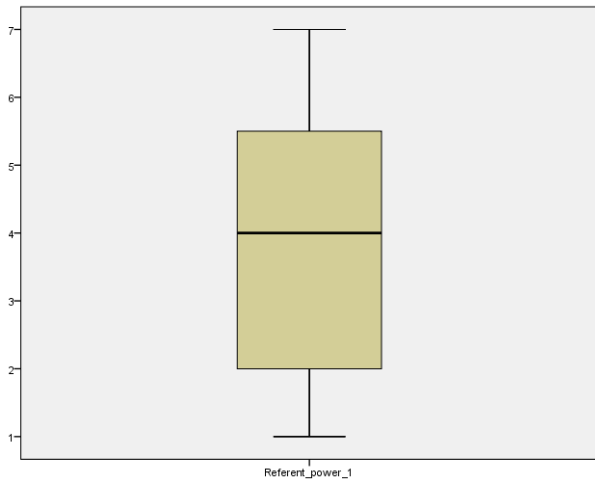
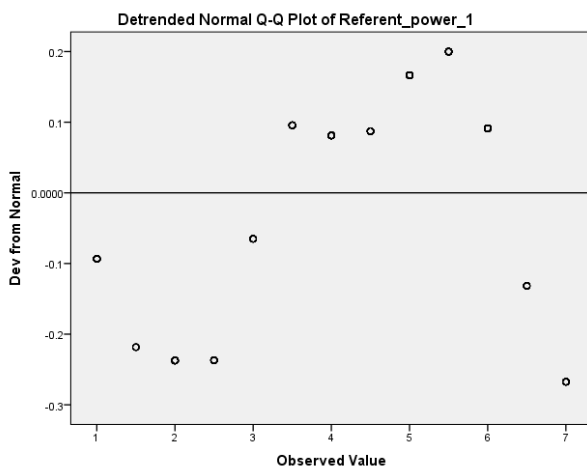
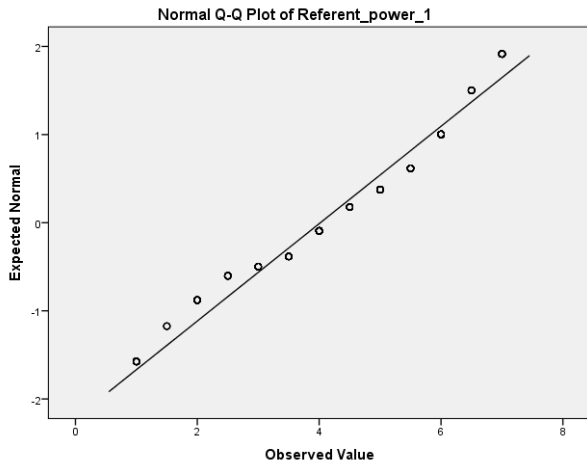
c. Only a partial list of cases with the value 7.00 are shown in the table of upper extremes.

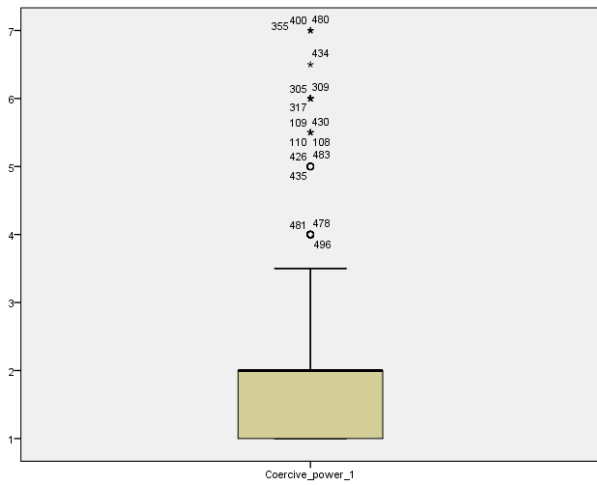
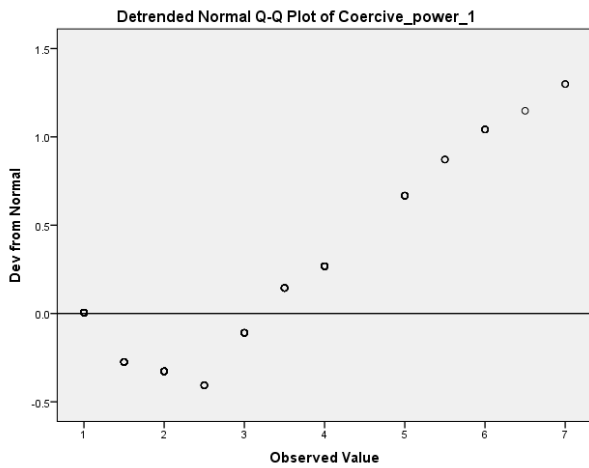
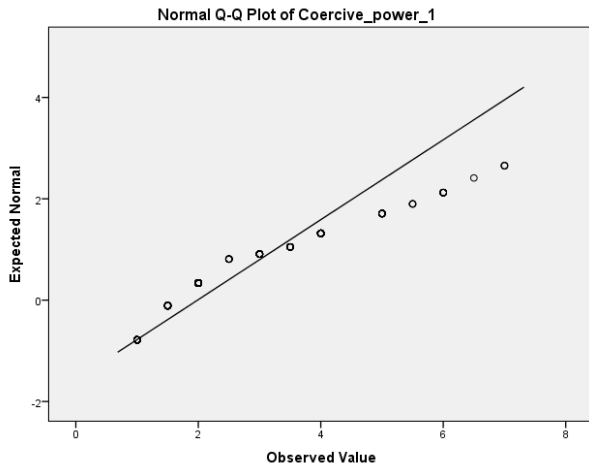
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Expert_power_1	0.057	502	0.001	0.976	502	0.000
Referent_power_1	0.121	502	0.000	0.934	502	0.000
Coercive_power_1	0.281	502	0.000	0.759	502	0.000

a. Lilliefors Significance Correction







Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Zscore(Expert_power_1)	502	100.0%	0	0.0%	502	100.0%
Zscore(Referent_power_1)	502	100.0%	0	0.0%	502	100.0%
Zscore(Coercive_power_1)	502	100.0%	0	0.0%	502	100.0%

Descriptives

		Statistic	Std. Error	
Zscore(Expert_power_1)	Mean	0.0000 000	0.0446 3218	
	95% Confidence Interval for Mean	Lower Bound	- 0.0876 893	
		Upper Bound	0.0876 893	
	5% Trimmed Mean	- 0.0292 497		
	Median	- 0.0515 657		
	Variance	1.000		
	Std. Deviation	1.0000 0000		
	Minimum	- 1.6310 5		
	Maximum	2.8441 6		
	Range	4.4752 1		
	Interquartile Range	1.5794 8		
	Skewness	0.203	0.109	
	Kurtosis	-0.488	0.218	
	Zscore(Referent_power_1)	Mean	0.0000 000	0.0446 3218
		95% Confidence Interval for Mean	Lower Bound	- 0.0876 893
Upper Bound			0.0876 893	
5% Trimmed Mean		0.0012 227		
Median		- 0.0110 041		
Variance		1.000		
Std. Deviation		1.0000 0000		
Minimum		- 1.6682 2		
Maximum		1.6462 1		
Range		3.3144 4		
Interquartile Range		1.9334 2		
Skewness		-0.206	0.109	
Kurtosis		-1.102	0.218	
Zscore(Coercive_		Mean	0.0000	0.0446

power_1)		000	3218
95% Confidence Interval for Mean	Lower Bound	-	
	Upper Bound	0.0876893	
5% Trimmed Mean		0.1192981	
Median		0.0102106	
Variance		1.000	
Std. Deviation		1.0000000	
Minimum		-	
Maximum		0.77836	
Range		3.95307	
Interquartile Range		4.73143	
Skewness		0.78857	0.109
Kurtosis		1.613	0.218

M-Estimators

	Huber's M-Estimator ^a	Tukey's Biweight ^b	Hampel's M-Estimator ^c	Andrews' Wave ^d
Zscore(Expert_power_1)	-0.0157289	-	-	-
		0.0320150	0.0198706	0.0317220
Zscore(Referent_power_1)	0.0485677	0.0372200	0.0200847	0.0371580
Zscore(Coercive_power_1)	-0.1715391	-	-	-
		0.2129262	0.1261887	0.2150507

- a. The weighting constant is 1.339.
 b. The weighting constant is 4.685.
 c. The weighting constants are 1.700, 3.400, and 8.500
 d. The weighting constant is $1.340 \cdot \pi$.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Zscore(Expert_power_1)	-	-	-	-	0.7381768	1.2646717	1.7648420
		1.6310507	1.6310507	0.8413082	0.0515657			
	Zscore(Referent_power_1)	-	-	-	-	0.8176054	1.0938085	1.6462148
		1.6682230	1.6682230	1.1158167	0.0110041			
	Zscore(Coercive_power_1)	-	-	-	0.0102106	0.0102106	1.5873547	2.3759268
		0.7783615	0.7783615	0.7783615				

Tukey's Hinges	Zscore(Expert_power_1)	-	-	0.7381		
		0.8413082	0.0515657	768		
	Zscore(Referent_power_1)	-	-	0.8176		
		1.1158167	0.0110041	054		
	Zscore(Coercive_power_1)	-	0.0102	0.0102		
		0.7783615	106	106		

Extreme Values

			Case Number	Value
Zscore(Expert_power_1)	Highest	1	482	2.84416
		2	277	2.49316
		3	487	2.40541
		4	488	2.40541
		5	305	2.31766 ^a
	Lowest	1	494	-
				1.63105
		2	465	-
				1.63105
		3	455	-
		1.63105		
	4	439	-	
		1.63105		
	5	401	-	
		1.63105 ^b		
Zscore(Referent_power_1)	Highest	1	57	1.64621
		2	58	1.64621
		3	68	1.64621
		4	88	1.64621
		5	138	1.64621 ^c
	Lowest	1	497	-
				1.66822
		2	472	-
				1.66822
		3	469	-
		1.66822		

		4	463	-
				1.6682
				2
		5	460	-
				1.6682
				2 ^d
Zscore(Coercive_	Highest	1	355	3.9530
power_1)				7
		2	400	3.9530
				7
		3	480	3.9530
				7
		4	434	3.5587
				8
		5	150	3.1645
				0 ^e
	Lowest	1	500	-
				0.7783
				6
		2	497	-
				0.7783
				6
		3	495	-
				0.7783
				6
		4	494	-
				0.7783
				6
		5	493	-
				.77836 ^f

a. Only a partial list of cases with the value 2.31766 are shown in the table of upper extremes.

b. Only a partial list of cases with the value -1.63105 are shown in the table of lower extremes.

c. Only a partial list of cases with the value 1.64621 are shown in the table of upper extremes.

d. Only a partial list of cases with the value -1.66822 are shown in the table of lower extremes.

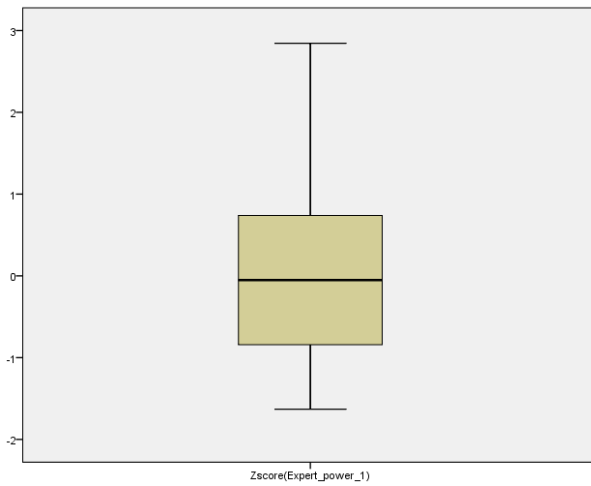
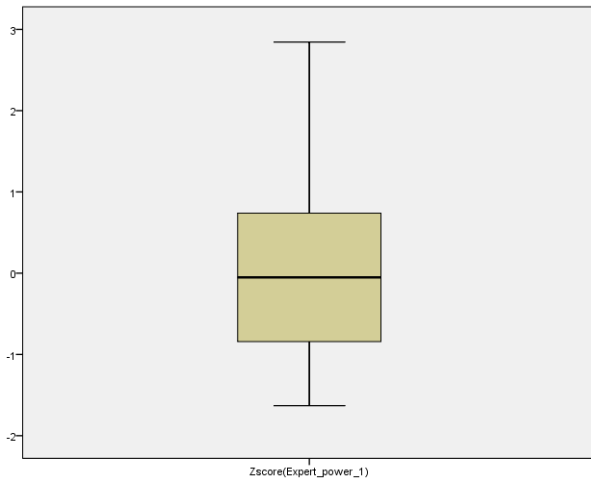
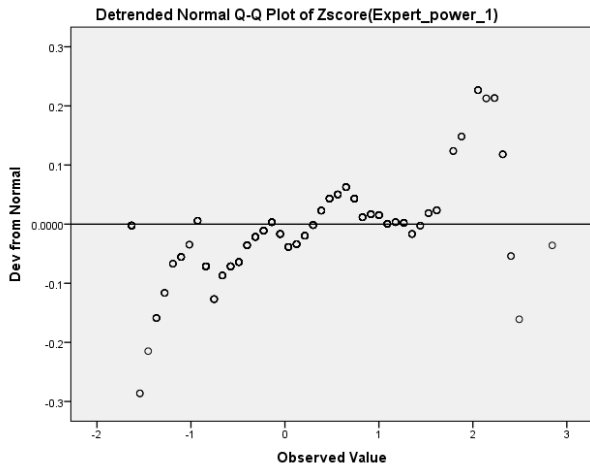
e. Only a partial list of cases with the value 3.16450 are shown in the table of upper extremes.

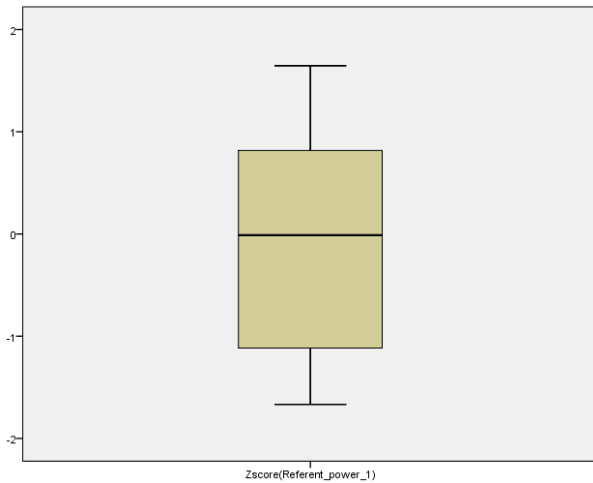
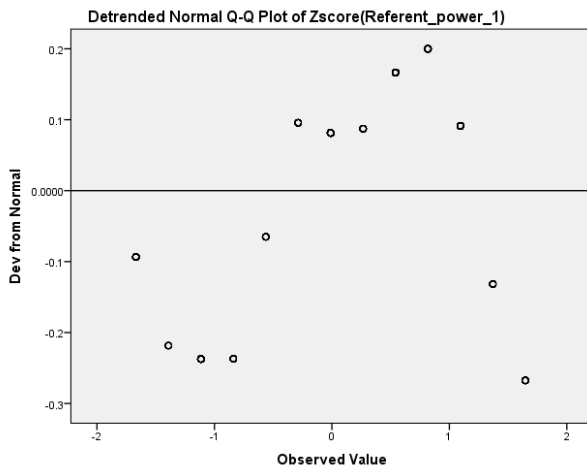
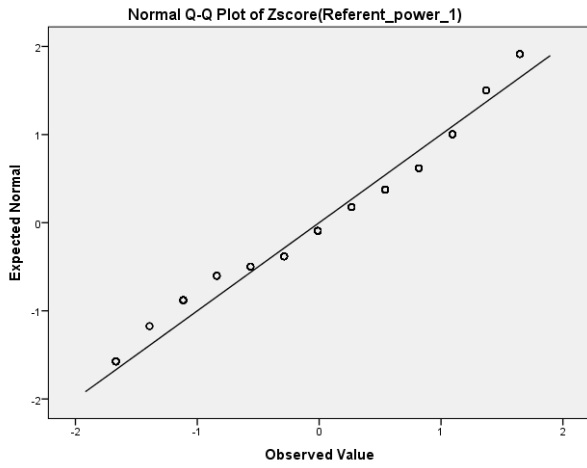
f. Only a partial list of cases with the value -.77836 are shown in the table of lower extremes.

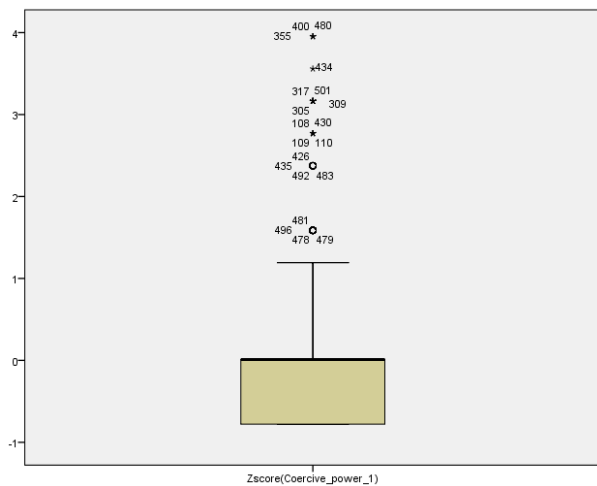
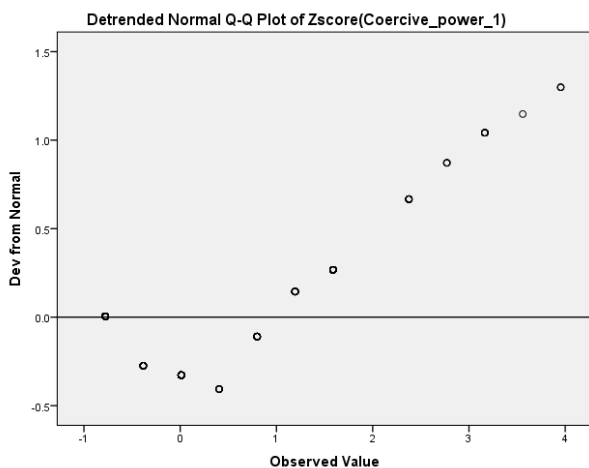
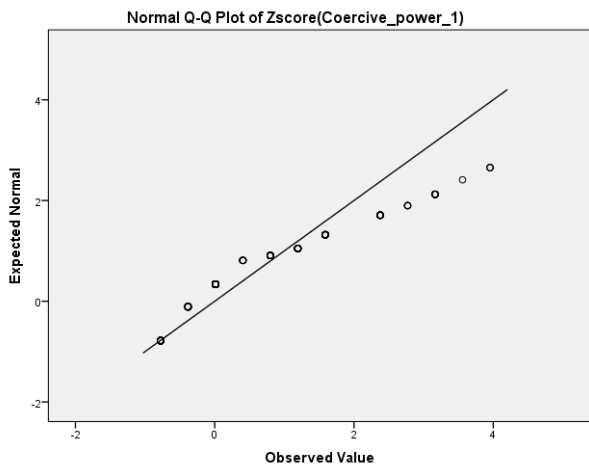
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zscore(Expert_po wer_1)	0.057	502	0.001	0.976	502	0.000
Zscore(Referent_ power_1)	0.121	502	0.000	0.934	502	0.000
Zscore(Coercive_ power_1)	0.281	502	0.000	0.759	502	0.000

a. Lilliefors Significance Correction







Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Zscore(Expert_power_1)	394	100.0%	0	0.0%	394	100.0%
Zscore(Referent_power_1)	394	100.0%	0	0.0%	394	100.0%
Zscore(Coercive_power_1)	394	100.0%	0	0.0%	394	100.0%

Descriptives

		Statistic	Std. Error	
Zscore(Expert_power_1)	Mean	-	0.0497	
		0.0914	1362	
		315		
	95% Confidence Interval for Mean	Lower Bound	-	
			0.1891	
		694		
		Upper Bound	0.0063	
			064	
	5% Trimmed Mean	-		
		0.1252		
		345		
	Median	-		
		0.1393		
		149		
Variance	0.974			
Std. Deviation	0.9867			
	8720			
Minimum	-			
	1.6310			
	5			
Maximum	2.4931			
	6			
Range	4.1242			
	1			
Interquartile Range	1.4917			
	4			
Skewness	0.292	0.123		
Kurtosis	-0.486	0.245		
Zscore(Referent_power_1)	Mean	-	0.0517	
		0.1456	6322	
		006		
	95% Confidence Interval for Mean	Lower Bound	-	
			0.2473	
		680		
		Upper Bound	-	
			0.0438	
		331		
	5% Trimmed Mean	-		
		0.1600		
		105		
	Median	-		
		0.0110		
	041			
Variance	1.056			
Std. Deviation	1.0274			
	7058			
Minimum	-			
	1.6682			
	2			
Maximum	1.6462			
	1			
Range	3.3144			
	4			
Interquartile Range	1.9334			
	2			

	Skewness	-0.013	0.123
	Kurtosis	-1.234	0.245
Zscore(Coercive_ power_1)	Mean	-	0.0190
		0.4481	0112
		219	
	95% Confidence Interval for Mean	Lower Bound	-
		0.4854	
		785	
		Upper Bound	-
		0.4107	
		653	
	5% Trimmed Mean	-	
		0.4552	
		382	
	Median	-	
		0.7783	
		615	
	Variance	0.142	
	Std. Deviation	0.3771	
		6155	
	Minimum	-	
		0.7783	
		6	
	Maximum	0.0102	
		1	
	Range	0.7885	
		7	
	Interquartile Range	0.7885	
		7	
	Skewness	0.330	0.123
	Kurtosis	-1.831	0.245

M-Estimators^e

	Huber's M-Estimator ^a	Tukey's Biweight ^b	Hampel's M-Estimator ^c	Andrews' Wave ^d
Zscore(Expert_ power_1)	-0.1255193	-	-	-
		0.1520	0.1209	0.1520
		082	977	675
Zscore(Referent_ power_1)	-0.1576848	-	-	-
		0.1439	0.1456	0.1439
		710	006	039
Zscore(Coercive_ power_1)				

a. The weighting constant is 1.339.

b. The weighting constant is 4.685.

c. The weighting constants are 1.700, 3.400, and 8.500

d. The weighting constant is $1.340 \cdot \pi$.

e. Some M-Estimators cannot be computed because of the highly centralized distribution around the median.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Zscore(Expert_ power_1)	-	-	-	-	0.6504	1.2646	1.6156
		1.6310	1.6310	0.8413	0.1393	276	717	684
		507	507	082	149			
	Zscore(Referent_ power_1)	-	-	-	-	0.8176	1.0938	1.4390

	power_1)	1.6682 230	1.6682 230	1.1158 167	0.0110 041	054	085	625
	Zscore(Coercive_ power_1)	- 0.7783 615	- 0.7783 615	- 0.7783 615	- 0.7783 615	0.0102 106	0.0102 106	0.0102 106
Tukey's Hinges	Zscore(Expert_po wer_1)			- 0.8413 082	- 0.1393 149	0.6504 276		
	Zscore(Referent_ power_1)			- 1.1158 167	- 0.0110 041	0.8176 054		
	Zscore(Coercive_ power_1)			- 0.7783 615	- 0.7783 615	0.0102 106		

Extreme Values

			Case Numbe r	Value
Zscore(Expert_po wer_1)	Highest	1	277	2.4931 6
		2	487	2.4054 1
		3	488	2.4054 1
		4	362	2.3176 6
		5	363	2.3176 6 ^a
	Lowest	1	494	- 1.6310 5
		2	465	- 1.6310 5
		3	455	- 1.6310 5
		4	439	- 1.6310 5
		5	401	- 1.6310 5 ^b
Zscore(Referent_ power_1)	Highest	1	57	1.6462 1
		2	58	1.6462 1
		3	68	1.6462 1
		4	88	1.6462 1
		5	138	1.6462 1 ^c
	Lowest	1	497	- 1.6682 2
		2	472	- 1.6682

				2
		3	469	-
				1.6682
				2
		4	463	-
				1.6682
				2
		5	460	-
				1.6682
				2 ^d
Zscore(Coercive_	Highest	1	7	0.0102
power_1)				1
		2	10	0.0102
				1
		3	18	0.0102
				1
		4	19	0.0102
				1
		5	20	.01021 ^e
	Lowest	1	500	-
				0.7783
				6
		2	497	-
				0.7783
				6
		3	495	-
				0.7783
				6
		4	494	-
				0.7783
				6
		5	493	-
				.77836 ^f

a. Only a partial list of cases with the value 2.31766 are shown in the table of upper extremes.

b. Only a partial list of cases with the value -1.63105 are shown in the table of lower extremes.

c. Only a partial list of cases with the value 1.64621 are shown in the table of upper extremes.

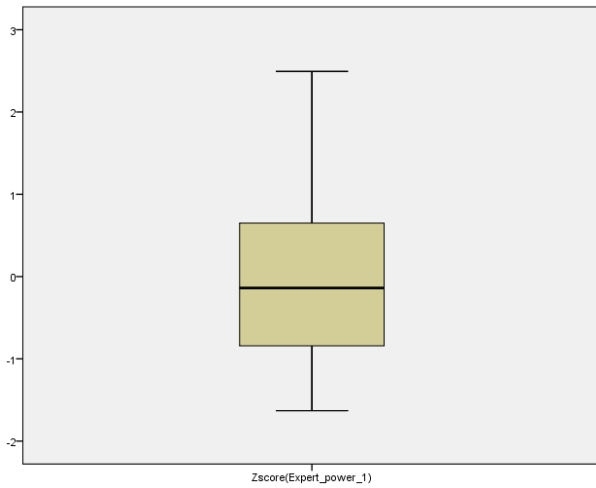
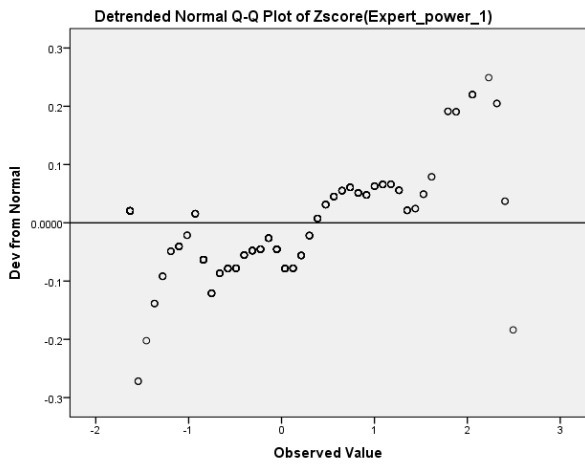
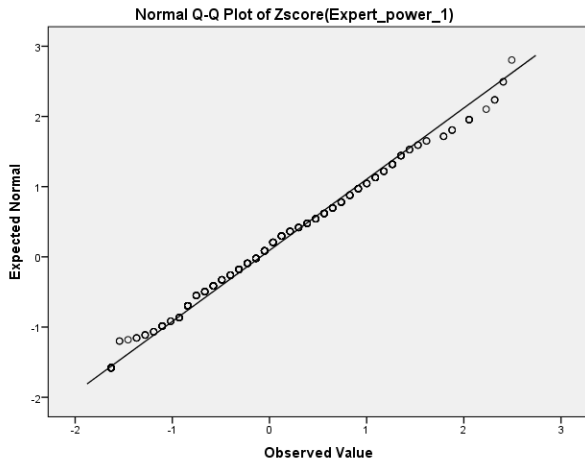
d. Only a partial list of cases with the value -1.66822 are shown in the table of lower extremes.

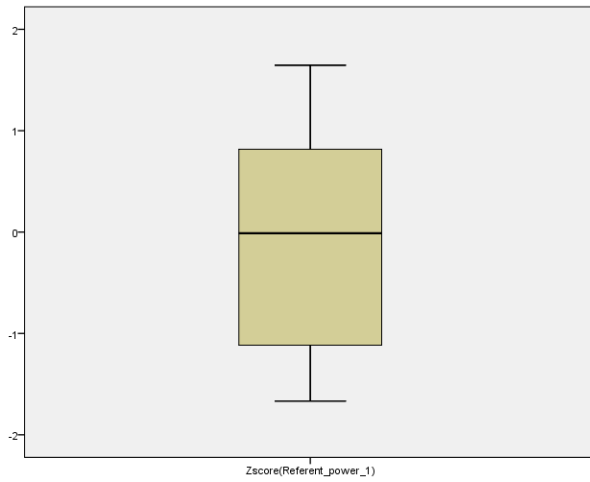
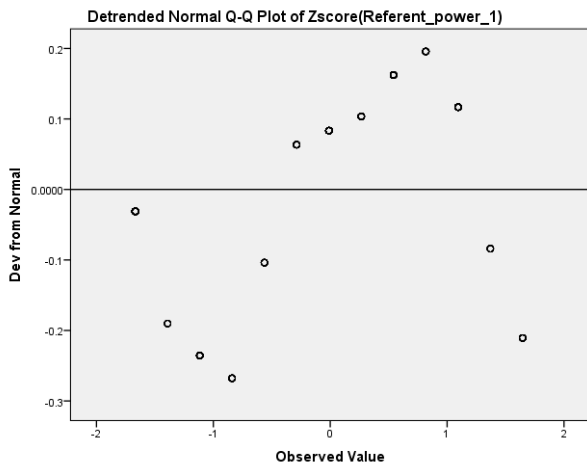
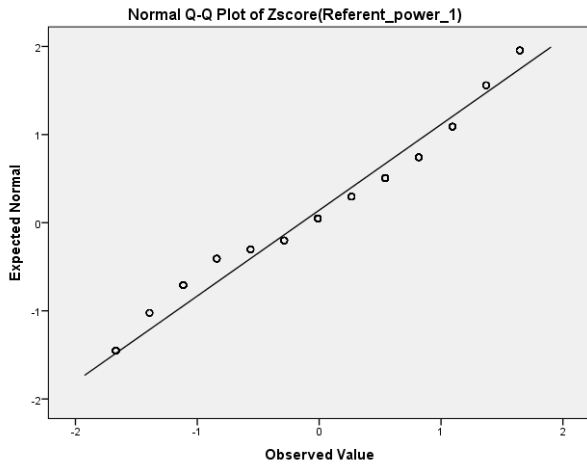
e. Only a partial list of cases with the value .01021 are shown in the table of upper extremes.

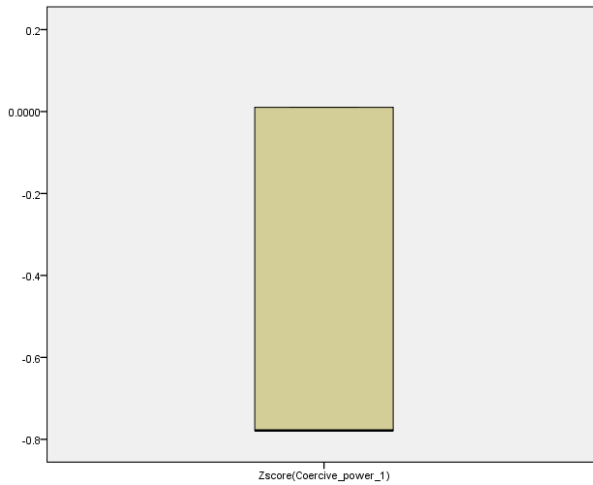
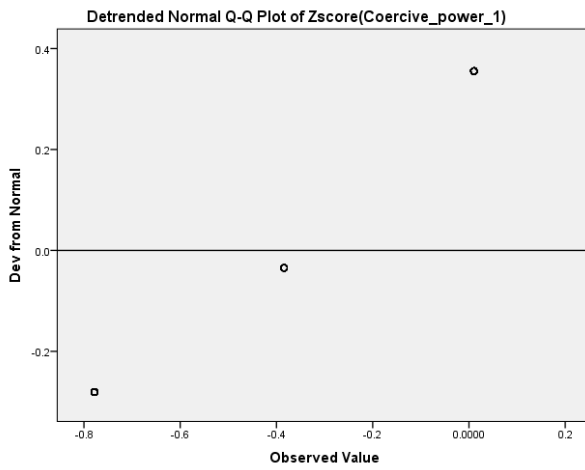
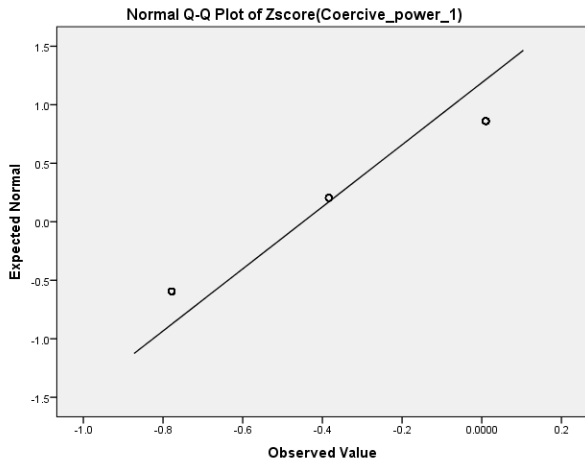
f. Only a partial list of cases with the value -.77836 are shown in the table of lower extremes.

	Tests of Normality			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zscore(Expert_	0.059	394	0.002	0.972	394	0.000
wer_1)						
Zscore(Referent_	0.145	394	0.000	0.929	394	0.000
power_1)						
Zscore(Coercive_	0.360	394	0.000	0.665	394	0.000
power_1)						

a. Lilliefors Significance Correction







Hierarchical regression (Total Frequency)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.184 ^a	0.034	0.026	0.12474
2	.194 ^b	0.038	0.028	0.12466
3	.492 ^c	0.243	0.229	0.11103

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.213	3	0.071	4.563	.004 ^b
	Residual	6.069	390	0.016		
	Total	6.282	393			
2	Regression	0.236	4	0.059	3.803	.005 ^c
	Residual	6.045	389	0.016		
	Total	6.282	393			
3	Regression	1.524	7	0.218	17.657	.000 ^d
	Residual	4.758	386	0.012		
	Total	6.282	393			

a. Dependent Variable: Freq

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.614	0.010		62.756	0.000
	Zscore(Expert_power_1)	0.024	0.007	0.186	3.444	0.001
	Zscore(Referent_power_1)	-0.003	0.007	-0.025	-0.466	0.641
	Zscore(Coercive_power_1)	0.011	0.017	0.033	0.648	0.518
2	(Constant)	0.629	0.016		39.829	0.000
	Zscore(Expert_power_1)	0.025	0.007	0.196	3.594	0.000
	Zscore(Referent_power_1)	-0.003	0.007	-0.022	-0.400	0.689
	Zscore(Coercive_power_1)	0.012	0.017	0.035	0.687	0.493
	Age_Child	-0.006	0.005	-0.062	-1.227	0.221
3	(Constant)	0.458	0.025		18.182	0.000
	Zscore(Expert_power_1)	0.015	0.007	0.113	2.185	0.030
	Zscore(Referent_power_1)	0.004	0.006	0.030	0.612	0.541
	Zscore(Coercive_power_1)	0.008	0.016	0.023	0.498	0.619
	Age_Child	-0.004	0.004	-0.039	-0.850	0.396
	Participation_PP	0.099	0.021	0.207	4.649	0.000
	Participation_WW	0.091	0.011	0.356	7.925	0.000
Participation_CH	0.048	0.012	0.190	3.957	0.000	

a. Dependent Variable: Freq

Excluded Variables^a

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age_Child	-.062 ^b	-1.227	0.221	0.959
	Participation_PP	.202 ^b	4.124	0.000	0.996
	Participation_WW	.375 ^b	8.033	0.000	0.977
	Participation_CH	.204 ^b	3.917	0.000	0.882
2	Participation_PP	.207 ^c	4.233	0.000	0.991
	Participation_WW	.374 ^c	7.999	0.000	0.976
	Participation_CH	.199 ^c	3.768	0.000	0.861

a. Dependent Variable: Freq

b. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

Hierarchical regression per store (when child is present in the shopping environment)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.115 ^a	0.013	0.006	0.716
2	.116 ^b	0.013	0.003	0.717
3	.442 ^c	0.195	0.180	0.650

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2.695	3	0.898	1.751	.156 ^b
	Residual	200.029	390	0.513		
	Total	202.723	393			
2	Regression	2.734	4	0.683	1.329	.258 ^c
	Residual	199.989	389	0.514		
	Total	202.723	393			
3	Regression	39.518	7	5.645	13.352	.000 ^d
	Residual	163.206	386	0.423		
	Total	202.723	393			

a. Dependent Variable: Dep1_1PPFreq

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.805	0.056		49.947	0.000
Zscore(Expert_power_1)	0.037	0.040	0.050	0.921	0.358
Zscore(Referent_power_1)	0.062	0.039	0.089	1.607	0.109
Zscore(Coercive_power_1)	-0.038	0.098	-0.020	-0.387	0.699
2 (Constant)	2.785	0.091		30.659	0.000
Zscore(Expert_power_1)	0.035	0.040	0.048	0.866	0.387
Zscore(Referent_power_1)	0.061	0.039	0.088	1.588	0.113
Zscore(Coercive_power_1)	-0.039	0.098	-0.020	-0.396	0.693
Age_Child	0.008	0.027	0.014	0.276	0.783
3 (Constant)	1.996	0.147		13.534	0.000
Zscore(Expert_power_1)	0.064	0.039	0.087	1.633	0.103
Zscore(Referent_power_1)	0.055	0.035	0.079	1.570	0.117
Zscore(Coercive_power_1)	0.005	0.091	0.003	0.060	0.953
Age_Child	-0.017	0.025	-0.033	-0.689	0.491
Participation_PP	1.093	0.124	0.404	8.783	0.000
Participation_WW	-0.128	0.067	-0.088	-1.907	0.057
Participation_CH	-0.144	0.072	-0.099	-2.011	0.045

a. Dependent Variable: Dep1_1PPFreq

Excluded Variables^a

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1 Age_Child	.014 ^b	0.276	0.783	0.014	0.959
Participation_PP	.406 ^b	8.816	0.000	0.408	0.996
Participation_WW	-.082 ^b	-1.612	0.108	-0.081	0.977
Participation_CH	-.132 ^b	-2.482	0.013	-0.125	0.882
2 Participation_PP	.407 ^c	8.807	0.000	0.408	0.991
Participation_WW	-.082 ^c	-1.602	0.110	-0.081	0.976
Participation_CH	-.133 ^c	-2.465	0.014	-0.124	0.861

a. Dependent Variable: Dep1_1PPFreq

b. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.165 ^a	0.027	0.020	0.895
2	.173 ^b	0.030	0.020	0.895
3	.690 ^c	0.476	0.466	0.661

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.706	3	2.902	3.620	.013 ^b
	Residual	312.687	390	0.802		
	Total	321.393	393			
2	Regression	9.623	4	2.406	3.002	.018 ^c
	Residual	311.771	389	0.801		
	Total	321.393	393			
3	Regression	152.858	7	21.837	50.013	.000 ^d
	Residual	168.535	386	0.437		
	Total	321.393	393			

a. Dependent Variable: Dep1_2WW

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.283	0.070		32.520	0.000
	Zscore(Expert_power_1)	0.054	0.050	0.059	1.095	0.274
	Zscore(Referent_power_1)	-0.048	0.048	-0.055	-1.003	0.317
	Zscore(Coercive_power_1)	0.371	0.122	0.155	3.037	0.003
2	(Constant)	2.379	0.113		20.971	0.000
	Zscore(Expert_power_1)	0.063	0.050	0.068	1.247	0.213
	Zscore(Referent_power_1)	-0.046	0.048	-0.052	-0.944	0.346
	Zscore(Coercive_power_1)	0.375	0.122	0.156	3.070	0.002
	Age_Child	-0.037	0.034	-0.055	-1.069	0.286
3	(Constant)	1.640	0.150		10.947	0.000
	Zscore(Expert_power_1)	0.060	0.040	0.066	1.527	0.128
	Zscore(Referent_power_1)	0.006	0.036	0.006	0.159	0.873
	Zscore(Coercive_power_1)	0.125	0.092	0.052	1.353	0.177
	Age_Child	-0.028	0.026	-0.041	-1.073	0.284
	Participation_PP	-0.057	0.126	-0.017	-0.448	0.654
	Participation_WW	1.236	0.068	0.677	18.110	0.000
	Participation_CH	-0.100	0.073	-0.055	-1.370	0.172

a. Dependent Variable: Dep1_2WW

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age_Child	-.055 ^b	-1.069	0.286	-0.054	0.959
	Participation_PP	.004 ^b	0.070	0.944	0.004	0.996
	Participation_WW	.675 ^b	18.096	0.000	0.676	0.977
	Participation_CH	.000 ^b	-0.007	0.994	0.000	0.882
2	Participation_PP	.007 ^c	0.147	0.883	0.007	0.991
	Participation_WW	.674 ^c	18.057	0.000	0.676	0.976
	Participation_CH	-.009 ^c	-0.173	0.863	-0.009	0.861

a. Dependent Variable: Dep1_2WW

b. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.206 ^a	0.042	0.035	0.901
2	.214 ^b	0.046	0.036	0.900
3	.465 ^c	0.216	0.202	0.819

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.984	3	4.661	5.743	.001 ^b
	Residual	316.556	390	0.812		
	Total	330.541	393			
2	Regression	15.142	4	3.786	4.669	.001 ^c
	Residual	315.399	389	0.811		
	Total	330.541	393			
3	Regression	71.340	7	10.191	15.177	.000 ^d
	Residual	259.200	386	0.672		
	Total	330.541	393			

a. Dependent Variable: Dep1_3CH

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child, Participation_PP, Participation_WW, Participation_CH

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.278	0.071		32.247	0.000
	Zscore(Expert_power_1)	0.195	0.050	0.210	3.902	0.000
	Zscore(Referent_power_1)	-0.051	0.048	-0.057	-1.056	0.292
	Zscore(Coercive_power_1)	-0.201	0.123	-0.083	-1.635	0.103
2	(Constant)	2.385	0.114		20.907	0.000
	Zscore(Expert_power_1)	0.204	0.051	0.220	4.041	0.000
	Zscore(Referent_power_1)	-0.048	0.049	-0.054	-0.990	0.323
	Zscore(Coercive_power_1)	-0.196	0.123	-0.081	-1.597	0.111
	Age_Child	-0.041	0.035	-0.060	-1.195	0.233
3	(Constant)	1.857	0.186		9.995	0.000
	Zscore(Expert_power_1)	0.050	0.049	0.054	1.025	0.306
	Zscore(Referent_power_1)	-0.017	0.044	-0.019	-0.380	0.704
	Zscore(Coercive_power_1)	-0.038	0.115	-0.016	-0.329	0.742
	Age_Child	0.001	0.032	0.001	0.031	0.976
	Participation_PP	0.149	0.157	0.043	0.952	0.342
	Participation_WW	-0.017	0.085	-0.009	-0.205	0.838
Participation_CH	0.824	0.090	0.445	9.133	0.000	

a. Dependent Variable: Dep1_3CH

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Age_Child	-.060 ^b	-1.195	0.233	-0.060	0.959
	Participation_PP	.012 ^b	0.240	0.810	0.012	0.996
	Participation_WW	.019 ^b	0.386	0.700	0.020	0.977
	Participation_CH	.441 ^b	9.215	0.000	0.423	0.882
2	Participation_PP	.016 ^c	0.327	0.744	0.017	0.991
	Participation_WW	.018 ^c	0.351	0.726	0.018	0.976
	Participation_CH	.442 ^c	9.109	0.000	0.420	0.861

a. Dependent Variable: Dep1_3CH

b. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors in the Model: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Age_Child

Appendix 3.2 When the child is not present in the shopping environment

Confirmatory Factor Analysis

Latent Variable	Indicator Coding	Input		VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	Input				Construct Validity Result
		Loadings	Loading criteria				ALPHA	Composite Reliability (CR)	CR/Rull of the tumb	Delta (CR - Alpha)	
Expert power	EP1	0.657	0.5>Loading < 0.7- caution is required	0.580	VE>0.5	Yes	0.903	0.925	CR>0.7	CR is larger than Alpha	Construct Validity is achieved
	EP2	0.806	Loading > 0.7								
	EP3	0.800	Loading > 0.7								
	EP4	0.697	0.5>Loading < 0.7- caution is required								
	EP5	0.821	Loading > 0.7								
	EP6	0.828	Loading > 0.7								
	EP7	0.730	Loading > 0.7								
	EP8	0.737	Loading > 0.7								
	EP9	0.759	Loading > 0.7								
Legitimate power	LP1	0.424	0.5>Loading < 0.7- caution is required	0.273	VE<0.5	Yes	0.844	0.526	CR<0.6	Alpha is larger than CR	Construct Validity is not achieved
	LP2	0.568	0.5>Loading < 0.7- caution is required								
	LP3	0.563	0.5>Loading < 0.7- caution is required								
Referent power	RP1	0.550	0.5>Loading < 0.7- caution is required	0.526	VE>0.5	Yes	0.908	0.764	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	RP2	0.817	Loading > 0.7								
	RP3	0.780	Loading > 0.7								
Reward power	RWP1	0.749	Loading > 0.7	0.573	VE>0.5	Yes	0.937	0.801	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	RWP2	0.753	Loading > 0.7								
	RWP3	0.768	Loading > 0.7								
Coercive power	CP1	0.452	0.5>Loading < 0.5	0.518	VE>0.5	Yes	0.894	0.752	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	CP2	0.823	Loading > 0.7								
	CP3	0.820	Loading > 0.7								

	Expert power	Legitimate power	Referent power	Reward power	Coercive power	
Expert power		0.580				
Legitimate power			0.273			
Referent power				0.526		
Reward power					0.573	
Coercive power						0.518
	We have Discriminant Validity	We have Discriminant Validity	We have Discriminant Validity	We have Discriminant Validity	We have Discriminant Validity	

Latent Variable	Indicator Coding	Input		VE (Variance Extracted)	VE Rule of the thumb	Discriminant Validity	Input				Construct Validity Result
		Loadings	Loading criteria				ALPHA	Composite Reliability (CR)	CR/Rull of the tumb	Delta (CR - Alpha)	
Expert power	EP1	0.657	0.5>Loading < 0.7- caution is required	0.580	VE>0.5	Yes	0.903	0.925	CR>0.7	CR is larger than Alpha	Construct Validity is achieved
	EP2	0.806	Loading > 0.7								
	EP3	0.800	Loading > 0.7								
	EP4	0.697	0.5>Loading < 0.7- caution is required								
	EP5	0.821	Loading > 0.7								
	EP6	0.828	Loading > 0.7								
	EP7	0.730	Loading > 0.7								
	EP8	0.737	Loading > 0.7								
	EP9	0.759	Loading > 0.7								
Referent power	RP1	0.550	0.5>Loading < 0.7- caution is required	0.526	VE>0.5	No	0.908	0.764	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	RP2	0.817	Loading > 0.7								
	RP3	0.780	Loading > 0.7								
Reward power	RWP1	0.749	Loading > 0.7	0.573	VE>0.5	No	0.937	0.801	CR>0.7	Alpha is larger than CR	Construct Validity is not achieved
	RWP2	0.753	Loading > 0.7								
	RWP3	0.768	Loading > 0.7								
Coercive power	CP1	0.814	Loading > 0.7	0.663	VE>0.5	Yes	0.949	0.797	CR>0.7	Alpha is larger than CR	Construct Validity is achieved
	CP2	0.823	Loading > 0.7								
	CP3	0.824	Loading > 0.7								

	Expert power	Referent power	Reward power	Coercive power	
Expert power		0.580			
Referent power			0.526		
Reward power				0.573	
Coercive power					0.663
	We have Discriminant Validity	We don't have Discriminant Validity	We don't have Discriminant Validity	We have Discriminant Validity	

Data checking and outlier exclusion

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Expert_power_without_child	502	100.0%	0	0.0%	502	100.0%
Coercive_power_without_child	502	100.0%	0	0.0%	502	100.0%

Descriptives

		Statistic	Std. Error	
Expert_power_without_child	Mean	2.7127	0.05761	
	95% Confidence Interval for Mean	Lower Bound	2.5995	
		Upper Bound	2.8259	
	5% Trimmed Mean	2.6562		
	Median	2.6667		
	Variance	1.666		
	Std. Deviation	1.29087		
	Minimum	1.00		
	Maximum	6.67		
	Range	5.67		
	Interquartile Range	2.00		
	Skewness	0.359	0.109	
	Kurtosis	-0.668	0.218	
Coercive_power_without_child	Mean	2.0584	0.05598	
	95% Confidence Interval for Mean	Lower Bound	1.9485	
		Upper Bound	2.1684	
	5% Trimmed Mean	1.9303		
	Median	2.0000		
	Variance	1.573		
	Std. Deviation	1.25419		
	Minimum	1.00		
	Maximum	7.00		
	Range	6.00		
	Interquartile Range	1.67		
	Skewness	1.300	0.109	
	Kurtosis	1.227	0.218	

M-Estimators

	Huber's M-Estimator ^a	Tukey's Biweight ^b	Hampel's M-Estimator ^c	Andrews' Wave ^d
Expert_power_without_child	2.6580	2.6336	2.6447	2.6337
Coercive_power_without_child	1.8596	1.8258	1.9242	1.8237

a. The weighting constant is 1.339.

b. The weighting constant is 4.685.

c. The weighting constants are 1.700, 3.400, and 8.500

d. The weighting constant is $1.340 \cdot \pi$.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Expert_power_without_child	1.0000	1.0000	1.6667	2.6667	3.6667	4.4111	4.8722
	Coercive_power_without_child	1.0000	1.0000	1.0000	2.0000	2.6667	4.0000	4.6667
Tukey's Hinges	Expert_power_without_child			1.6667	2.6667	3.6667		
	Coercive_power_without_child			1.0000	2.0000	2.6667		

Extreme Values

				Case Number	Value
Expert_power_without_child	Highest	1		482	6.67
		2		68	6.00
		3		150	6.00
		4		305	6.00
		5		309	6.00 ^a
	Lowest	1		494	1.00
		2		465	1.00
		3		462	1.00
		4		460	1.00
		5		455	1.00 ^b
Coercive_power_without_child	Highest	1		400	7.00
		2		480	7.00
		3		150	6.00
		4		196	6.00
		5		305	6.00 ^a
	Lowest	1		500	1.00
		2		497	1.00
		3		494	1.00
		4		493	1.00
		5		490	1.00 ^b

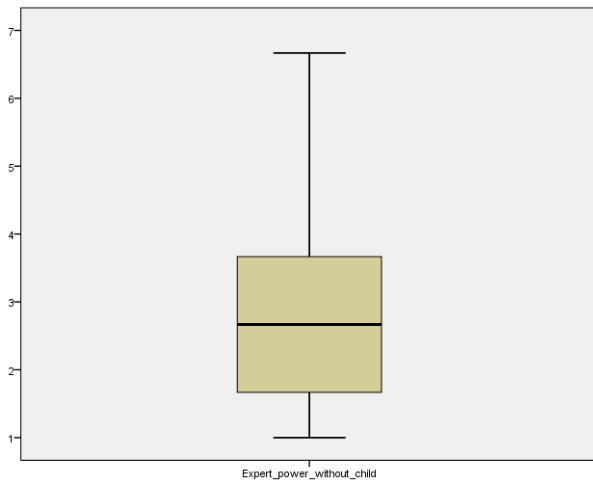
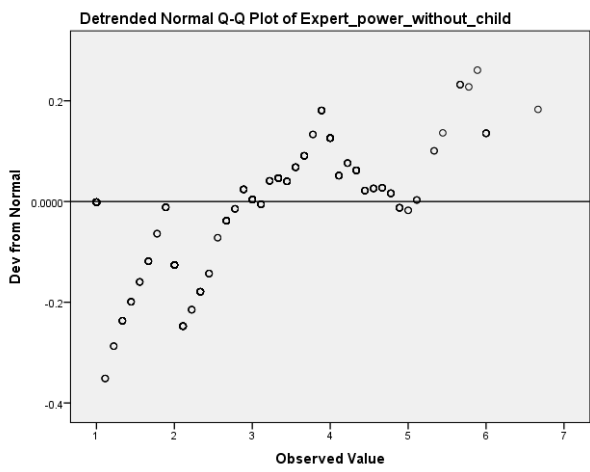
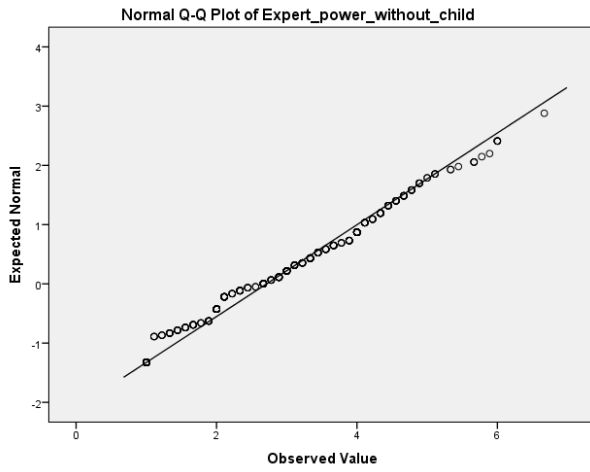
a. Only a partial list of cases with the value 6.00 are shown in the table of upper extremes.

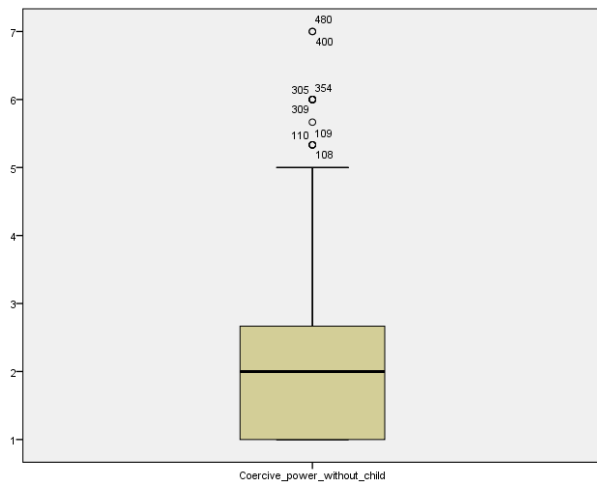
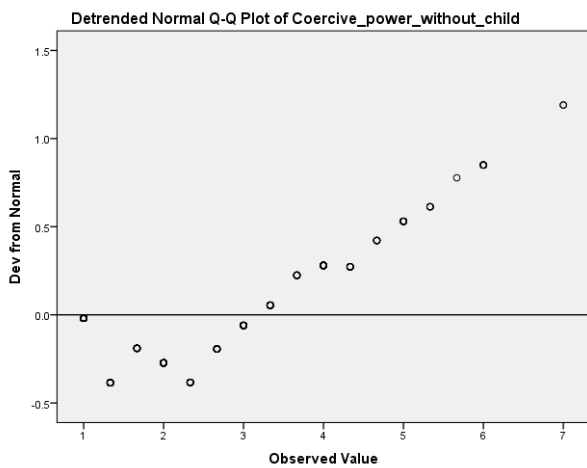
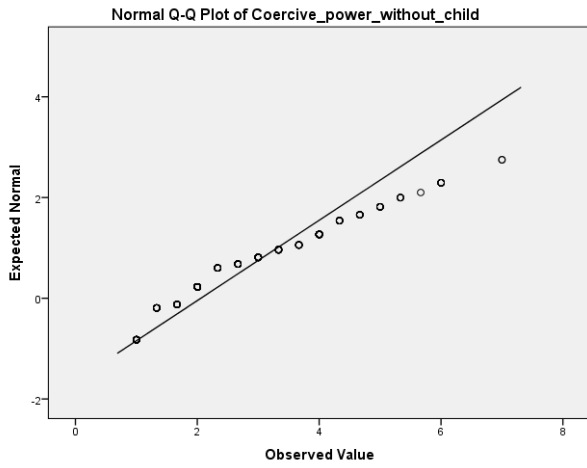
b. Only a partial list of cases with the value 1.00 are shown in the table of lower extremes.

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Expert_power_without_child	0.110	502	0.000	0.946	502	0.000
Coercive_power_without_child	0.234	502	0.000	0.808	502	0.000

a. Lilliefors Significance Correction





Case Processing Summary

	N	Valid		Missing		Total	
		Percent	N	Percent	N	Percent	
Zscore(Expert_power_without_child)	502	100.0%	0	0.0%	502	100.0%	
Zscore(Coercive_power_without_child)	502	100.0%	0	0.0%	502	100.0%	

Descriptives

		Statistic	Std. Error	
Zscore(Expert_power_without_child)	Mean	0.0000000	0.04463218	
	95% Confidence Interval for Mean	Lower Bound	-0.0876893	
		Upper Bound	0.0876893	
	5% Trimmed Mean	-0.0437422		
	Median	-0.0356644		
	Variance	1.000		
	Std. Deviation	1.00000000		
	Minimum	-1.32678		
	Maximum	3.06302		
	Range	4.38981		
	Interquartile Range	1.54934		
	Skewness	0.359	0.109	
	Kurtosis	-0.668	0.218	
	Zscore(Coercive_power_without_child)	Mean	0.0000000	0.04463218
95% Confidence Interval for Mean		Lower Bound	-0.0876893	
		Upper Bound	0.0876893	
5% Trimmed Mean		-0.1021811		
Median		-0.0465903		
Variance		1.000		
Std. Deviation		1.00000000		
Minimum		-0.84392		
Maximum		3.94006		
Range		4.78398		
Interquartile Range		1.32888		
Skewness		1.300	0.109	
Kurtosis		1.227	0.218	

M-Estimators

	Huber's M-Estimator ^a	Tukey's Biweight ^b	Hampel's M-Estimator ^c	Andrews' Wave ^d
Zscore(Expert_power_without_child)	-0.0457125	-0.0635733	-0.0527698	-0.0634512
Zscore(Coercive_power_without_child)	-0.1587320	-0.1868288	-0.1079247	-0.1886341

a. The weighting constant is 1.339.

b. The weighting constant is 4.685.

c. The weighting constants are 1.700, 3.400, and 8.500

d. The weighting constant is $1.340 \cdot \pi$.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Zscore(Expert_power_without_child)	-	-	-	-	0.739	1.315	1.672
		1.3267847	1.3267847	0.8103366	0.0356644	0078	7082	9181
Tukey's Hinges	Zscore(Coercive_power_without_child)	-	-	-	-	0.484	1.548	2.079
		0.8439205	0.8439205	0.8439205	0.0465903	9631	0700	6234
Tukey's Hinges	Zscore(Expert_power_without_child)			-	-	0.739		
				0.8103366	0.0356644	0078		
Tukey's Hinges	Zscore(Coercive_power_without_child)			-	-	0.484		
				0.8439205	0.0465903	9631		

Extreme Values

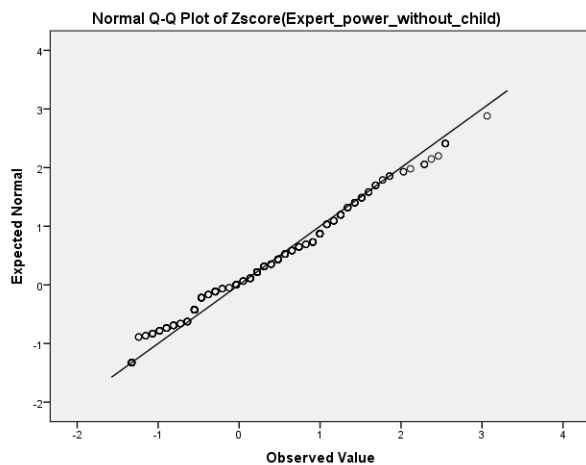
			Case Number	Value
Zscore(Expert_power_without_child)	Highest	1	482	3.06302
		2	68	2.54658
		3	150	2.54658
		4	305	2.54658
		5	309	2.54658 ^a
	Lowest	1	494	-1.32678
		2	465	-1.32678
		3	462	-1.32678
		4	460	-1.32678
		5	455	-1.32678 ^d
Zscore(Coercive_power_without_child)	Highest	1	400	3.94006
		2	480	3.94006
		3	150	3.14273
		4	196	3.14273
		5	305	3.14273 ^c
	Lowest	1	500	-0.84392
		2	497	-0.84392
		3	494	-0.84392
		4	493	-0.84392
		5	490	-0.84392 ^d

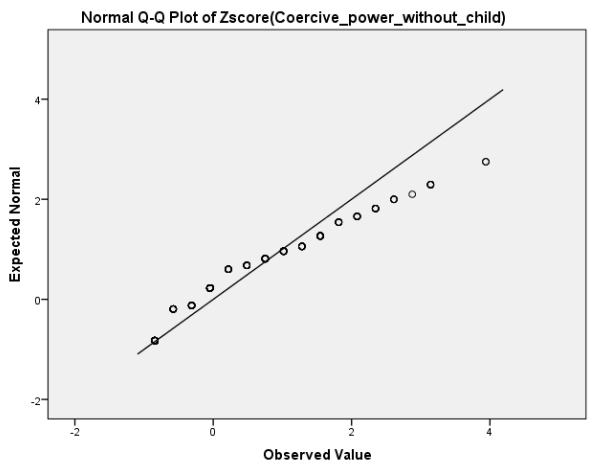
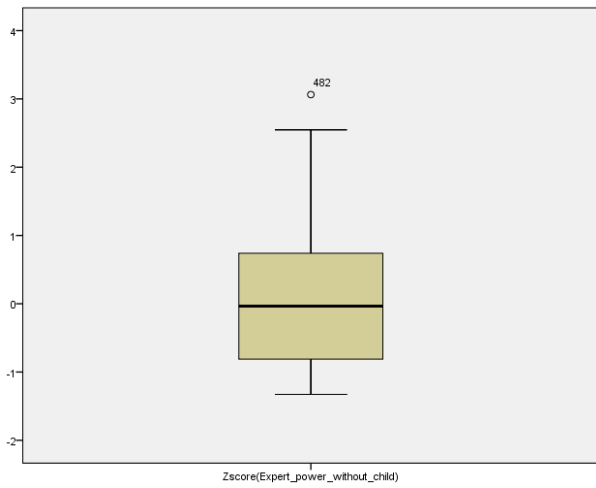
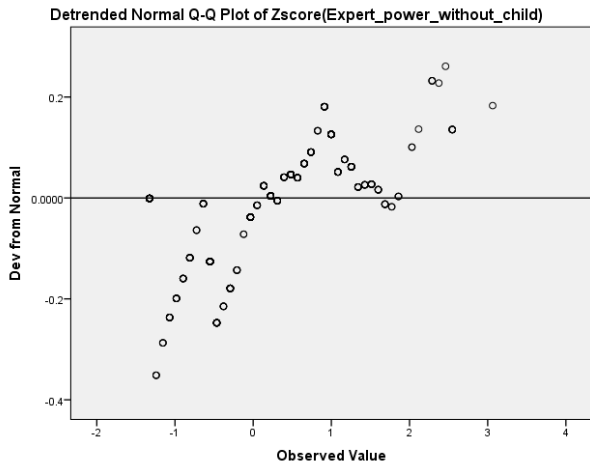
- Only a partial list of cases with the value 2.54658 are shown in the table of upper extremes.
- Only a partial list of cases with the value -1.32678 are shown in the table of lower extremes.
- Only a partial list of cases with the value 3.14273 are shown in the table of upper extremes.
- Only a partial list of cases with the value -.84392 are shown in the table of lower extremes.

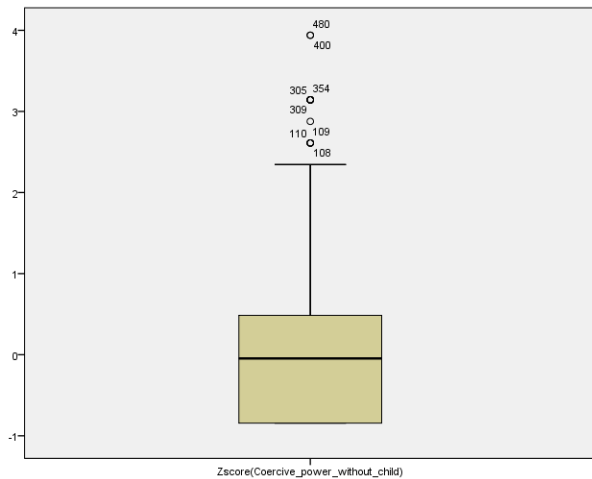
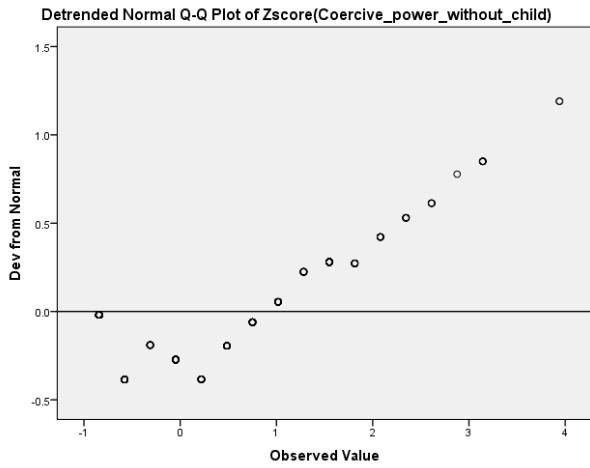
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zscore(Expert_power_without_child)	0.110	502	0.000	0.946	502	0.000
Zscore(Coercive_power_without_child)	0.234	502	0.000	0.808	502	0.000

- Lilliefors Significance Correction







Case Processing Summary

	N	Cases				N	Percent
		Valid	Missing	N	Percent		
Zscore(Expert_power_without_child)	394	100.0%	0	0.0%	394	100.0%	
Zscore(Coercive_power_without_child)	394	100.0%	0	0.0%	394	100.0%	

Descriptives

		Statistic	Std. Error	
Zscore(Expert_power_without_child)	Mean	-0.0898434	0.04882978	
	95% Confidence Interval for Mean	Lower Bound	-0.1858437	
		Upper Bound	0.0061569	
	5% Trimmed Mean	-0.1363519		
	Median	-0.2938885		
	Variance	0.939		
	Std. Deviation	0.96924348		
	Minimum	-1.32678		
	Maximum	2.54658		
	Range	3.87336		
	Interquartile Range	1.46327		
	Skewness	0.453	0.123	

	Kurtosis		-0.640	0.245
Zscore(Coercive_power_without_child)	Mean		-0.3535152	0.03285029
	95% Confidence Interval for Mean	Lower Bound	-0.4180995	
		Upper Bound	-0.2889310	
	5% Trimmed Mean		-0.4338628	
	Median		-0.8439205	
	Variance		0.425	
	Std. Deviation		0.65205955	
	Minimum		-0.84392	
	Maximum		3.14273	
	Range		3.98665	
	Interquartile Range		0.79733	
	Skewness		1.662	0.123
	Kurtosis		3.471	0.245

M-Estimators^e

	Huber's M-Estimator ^a	Tukey's Biweight ^b	Hampel's M-Estimator ^c	Andrews' Wave ^d
Zscore(Expert_power_without_child)	-0.1688986	-0.1657048	-0.1434071	-0.1653614
Zscore(Coercive_power_without_child)				

a. The weighting constant is 1.339.

b. The weighting constant is 4.685.

c. The weighting constants are 1.700, 3.400, and 8.500

d. The weighting constant is 1.340*pi.

e. Some M-Estimators cannot be computed because of the highly centralized distribution around the median.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Zscore(Expert_power_without_child)	-	-	-	-	0.6529	1.2554	1.5997
		1.3267	1.3267	0.8103	0.2938	331	559	546
		847	847	366	885			
	Zscore(Coercive_power_without_child)	-	-	-	-	-	0.4849	1.0165
		0.8439	0.8439	0.8439	0.8439	0.0465	631	165
		205	205	205	205	903		
Tukey's Hinges	Zscore(Expert_power_without_child)			-	-	0.6529		
				0.8103	0.2938	331		
				366	885			
	Zscore(Coercive_power_without_child)			-	-	-		
				0.8439	0.8439	0.0465		
				205	205	903		

Extreme Values

		Case Number		Value
Zscore(Expert_power_without_child)	Highest	1	68	2.54658
		2	484	2.54658
		3	363	2.46050
		4	459	2.37443
		5	487	2.28835 ^a
	Lowest	1	494	-1.32678
		2	465	-1.32678
		3	462	-1.32678
		4	460	-1.32678
		5	455	-1.32678 ^b
Zscore(Coercive_power_without_child)	Highest	1	354	3.14273
		2	368	2.34540
		3	376	2.07962
		4	41	1.54807

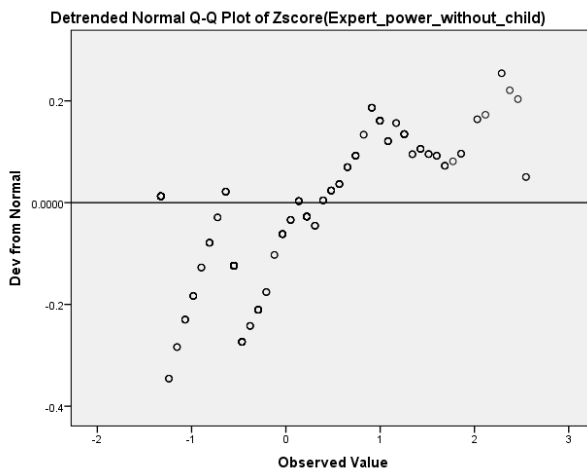
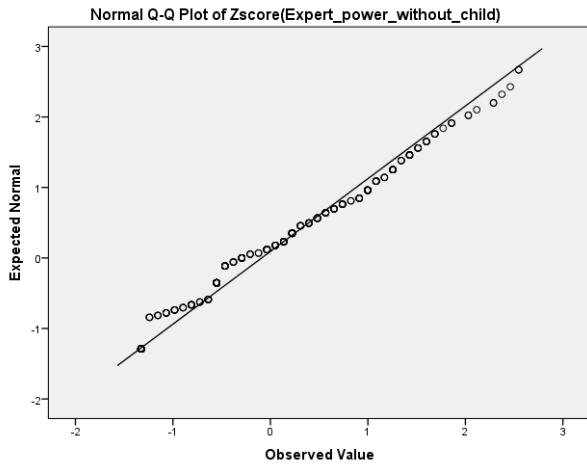
	5	67	1.54807 ^c
Lowest	1	500	-0.84392
	2	497	-0.84392
	3	494	-0.84392
	4	493	-0.84392
	5	490	-0.84392 ^d

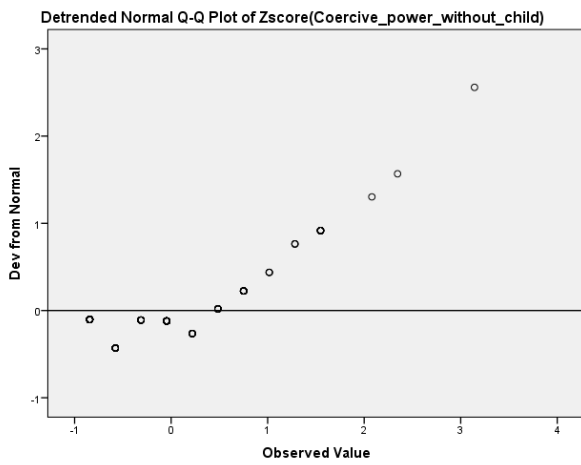
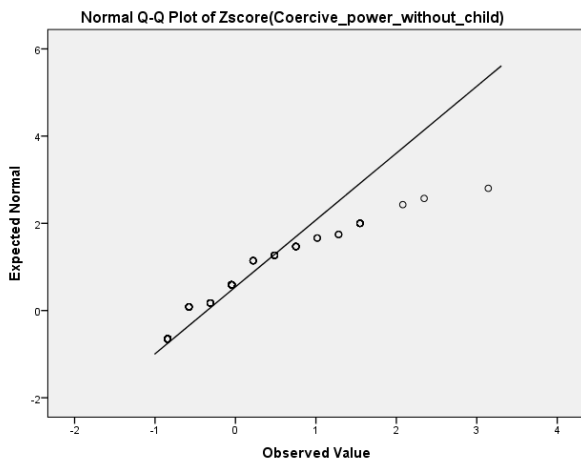
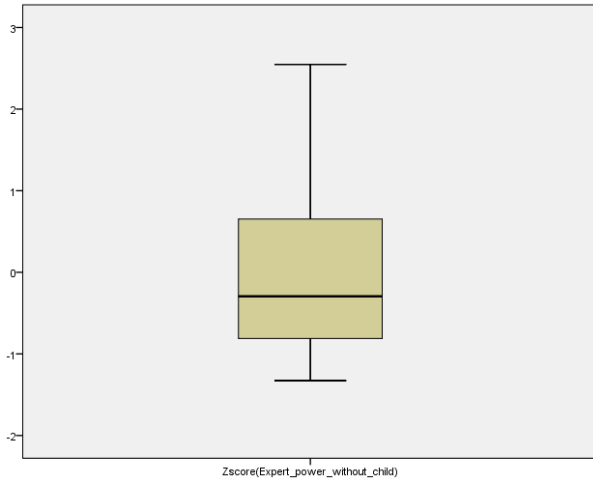
- a. Only a partial list of cases with the value 2.28835 are shown in the table of upper extremes.
- b. Only a partial list of cases with the value -1.32678 are shown in the table of lower extremes.
- c. Only a partial list of cases with the value 1.54807 are shown in the table of upper extremes.
- d. Only a partial list of cases with the value -.84392 are shown in the table of lower extremes.

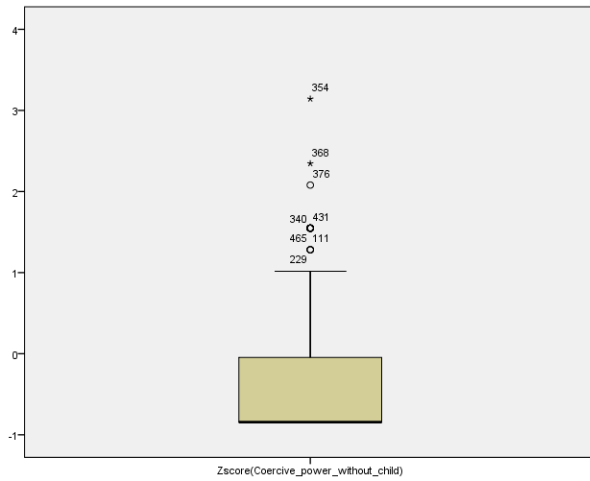
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zscore(Expert_power_without_child)	0.123	394	0.000	0.937	394	0.000
Zscore(Coercive_power_without_child)	0.289	394	0.000	0.743	394	0.000

- a. Lilliefors Significance Correction







Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Zscore(Coercive_power_1)	349	100.0%	0	0.0%	349	100.0%
Zscore(Coercive_power_without_child)	349	100.0%	0	0.0%	349	100.0%

Descriptives

		Statistic	Std. Error
Zscore(Coercive_power_1)	Mean	-0.4789752	0.01984864
	95% Confidence Interval for Mean	Lower Bound -0.5180136	
		Upper Bound -0.4399368	
	5% Trimmed Mean	-0.4895196	
	Median	-0.7783615	
	Variance	0.137	
	Std. Deviation	0.37080326	
	Minimum	-0.77836	
	Maximum	0.01021	
	Range	0.78857	
	Interquartile Range	0.78857	
	Skewness	0.497	0.131
	Kurtosis	-1.689	0.260
Zscore(Coercive_power_without_child)	Mean	-0.5354977	0.02056298
	95% Confidence Interval for Mean	Lower Bound -0.5759410	
		Upper Bound -0.4950543	
	5% Trimmed Mean	-0.5531400	
	Median	-0.8439205	
	Variance	0.148	
	Std. Deviation	0.38414819	
	Minimum	-0.84392	
	Maximum	0.21919	
	Range	1.06311	
	Interquartile Range	0.79733	
	Skewness	0.556	0.131
	Kurtosis	-1.540	0.260

M-Estimators^a

	Huber's M-Estimator ^b	Tukey's Biweight ^c	Hampel's M-Estimator ^d	Andrews' Wave ^e
Zscore(Coercive_power_1)				
Zscore(Coercive_power_without_child)				

a. Some M-Estimators cannot be computed because of the highly centralized distribution around the median.

b. The weighting constant is 1.339.

c. The weighting constant is 4.685.

d. The weighting constants are 1.700, 3.400, and 8.500

e. The weighting constant is $1.340 \cdot \pi$.

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average(Definition 1)	Zscore(Coercive_power_1)	-	-	-	-	0.0102	0.0102	0.0102
		0.7783	0.7783	0.7783	0.7783	106	106	106
	Zscore(Coercive_power_without_child)	-	-	-	-	-	-	-
		0.8439	0.8439	0.8439	0.8439	0.0465	0.0465	0.0465
		205	205	205	205	903	903	903
Tukey's Hinges	Zscore(Coercive_power_1)			-	-	0.0102		
				0.7783	0.7783	106		
	Zscore(Coercive_power_without_child)			-	-	-		
				0.8439	0.8439	0.0465		
				205	205	903		

Extreme Values

				Case Number	Value
Zscore(Coercive_power_1)	Highest	1		7	0.01021
		2		10	0.01021
		3		18	0.01021
		4		20	0.01021
		5		22	.01021 ^a
	Lowest	1		500	-0.77836
		2		497	-0.77836
		3		495	-0.77836
		4		494	-0.77836
		5		493	-.77836 ^b
Zscore(Coercive_power_without_child)	Highest	1		178	0.21919
		2		185	0.21919
		3		286	0.21919
		4		291	0.21919
		5		367	.21919 ^c
	Lowest	1		500	-0.84392
		2		497	-0.84392
		3		494	-0.84392
		4		493	-0.84392
		5		490	-.84392 ^d

a. Only a partial list of cases with the value .01021 are shown in the table of upper extremes.

b. Only a partial list of cases with the value -.77836 are shown in the table of lower extremes.

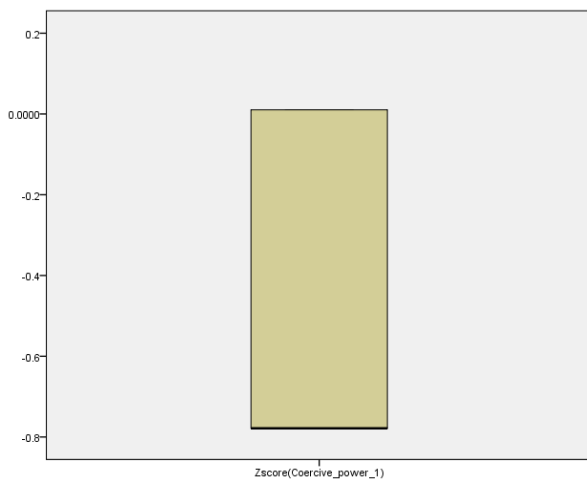
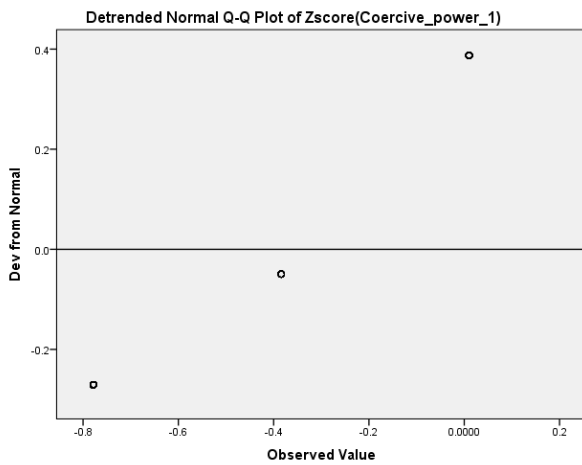
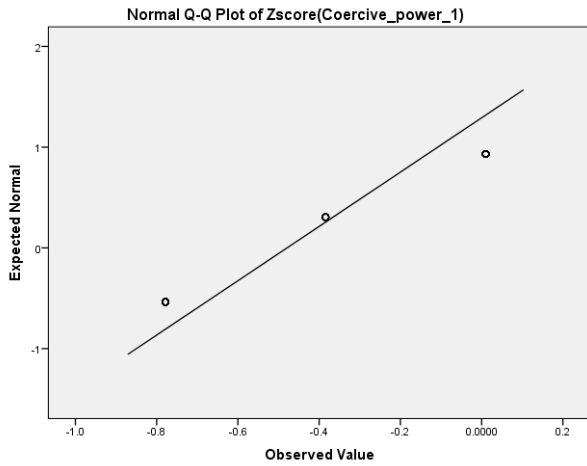
c. Only a partial list of cases with the value .21919 are shown in the table of upper extremes.

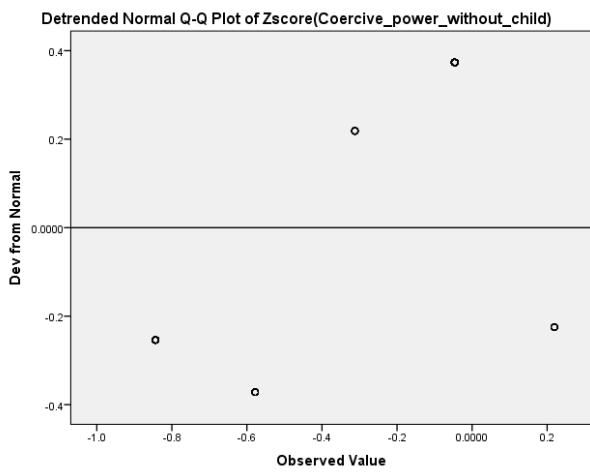
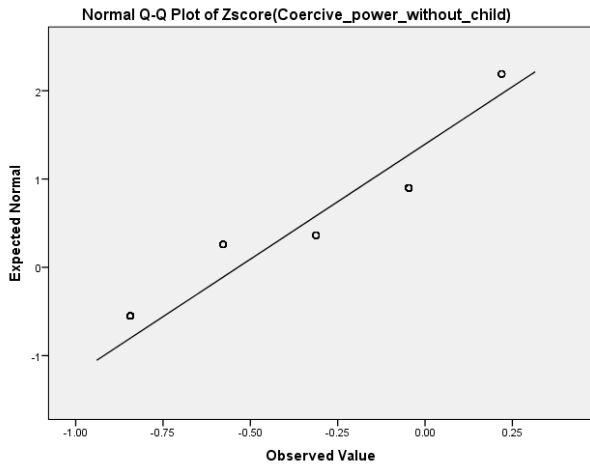
d. Only a partial list of cases with the value -.84392 are shown in the table of lower extremes.

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zscore(Coercive_power_1)	0.381	349	0.000	0.653	349	0.000
Zscore(Coercive_power_without_child)	0.371	349	0.000	0.687	349	0.000

a. Lilliefors Significance Correction





Hierarchical regression (Total Frequency)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.195 ^a	0.038	0.030	0.12261
2	.195 ^b	0.038	0.024	0.12295
3	.470 ^c	0.221	0.203	0.11114
4	.482 ^d	0.232	0.207	0.11085

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.204	3	0.068	4.529	.004 ^b
	Residual	5.187	345	0.015		
	Total	5.391	348			
2	Regression	0.206	5	0.041	2.722	.020 ^c
	Residual	5.185	343	0.015		
	Total	5.391	348			
3	Regression	1.191	8	0.149	12.056	.000 ^d
	Residual	4.200	340	0.012		
	Total	5.391	348			
4	Regression	1.250	11	0.114	9.249	.000 ^e
	Residual	4.141	337	0.012		
	Total	5.391	348			

a. Dependent Variable: Freq

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

e. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	0.608	0.011		56.553	0.000
Zscore(Expert_power_1)	0.026	0.007	0.203	3.589	0.000
Zscore(Referent_power_1)	-0.004	0.007	-0.031	-0.541	0.589
Zscore(Coercive_power_1)	0.001	0.018	0.003	0.065	0.948
2 (Constant)	0.609	0.012		52.276	0.000
Zscore(Expert_power_1)	0.028	0.013	0.223	2.229	0.026
Zscore(Referent_power_1)	-0.004	0.007	-0.030	-0.514	0.608
Zscore(Coercive_power_1)	-0.003	0.026	-0.008	-0.102	0.919
Zscore(Expert_power_without_child)	-0.003	0.013	-0.026	-0.253	0.801
Zscore(Coercive_power_without_child)	0.005	0.026	0.017	0.213	0.832
3 (Constant)	0.461	0.025		18.576	0.000
Zscore(Expert_power_1)	0.013	0.012	0.103	1.111	0.267
Zscore(Referent_power_1)	0.001	0.006	0.011	0.204	0.839
Zscore(Coercive_power_1)	-0.010	0.024	-0.030	-0.416	0.678
Zscore(Expert_power_without_child)	0.003	0.012	0.022	0.241	0.810
Zscore(Coercive_power_without_child)	0.008	0.023	0.025	0.351	0.726
Participation_PP	0.081	0.023	0.172	3.532	0.000
Participation_WW	0.086	0.012	0.341	6.976	0.000
Participation_CH	0.049	0.013	0.194	3.706	0.000
4 (Constant)	0.456	0.040		11.328	0.000
Zscore(Expert_power_1)	0.012	0.012	0.094	1.004	0.316
Zscore(Referent_power_1)	0.003	0.006	0.021	0.397	0.692
Zscore(Coercive_power_1)	-0.012	0.024	-0.036	-0.510	0.610
Zscore(Expert_power_without_child)	0.004	0.012	0.033	0.359	0.720
Zscore(Coercive_power_without_child)	0.012	0.023	0.036	0.499	0.618
Participation_PP	0.083	0.023	0.175	3.587	0.000
Participation_WW	0.085	0.012	0.338	6.884	0.000

Participation_CH	0.049	0.013	0.193	3.628	0.000
Age_Parent	0.010	0.006	0.081	1.640	0.102
Age_Child	-0.006	0.005	-0.060	-1.195	0.233
Education	-0.008	0.007	-0.055	-1.134	0.258

a. Dependent Variable: Freq

Hierarchical regression per store (when child is not present in the shopping environment)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.107 ^a	0.012	0.003	0.712
2	.148 ^b	0.022	0.008	0.710
3	.414 ^c	0.172	0.152	0.657
4	.420 ^d	0.176	0.149	0.658

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.038	3	0.679	1.340	.261 ^b
	Residual	174.845	345	0.507		
	Total	176.883	348			
2	Regression	3.865	5	0.773	1.532	.179 ^c
	Residual	173.018	343	0.504		
	Total	176.883	348			
3	Regression	30.340	8	3.792	8.799	.000 ^d
	Residual	146.543	340	0.431		
	Total	176.883	348			
4	Regression	31.161	11	2.833	6.551	.000 ^e
	Residual	145.722	337	0.432		
	Total	176.883	348			

a. Dependent Variable: Dep1_1PPFreq

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

e. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.759	0.062		44.229	0.000
Zscore(Expert_power_1)	0.051	0.042	0.070	1.230	0.220
Zscore(Referent_power_1)	0.040	0.041	0.056	0.976	0.330
Zscore(Coercive_power_1)	-0.088	0.104	-0.046	-0.848	0.397
2 (Constant)	2.743	0.067		40.784	0.000
Zscore(Expert_power_1)	0.156	0.074	0.214	2.124	0.034
Zscore(Referent_power_1)	0.054	0.041	0.077	1.315	0.189
Zscore(Coercive_power_1)	-0.011	0.151	-0.006	-0.071	0.943
Zscore(Expert_power_without_child)	-0.131	0.078	-0.173	-1.680	0.094
Zscore(Coercive_power_without_child)	-0.093	0.149	-0.050	-0.624	0.533
3 (Constant)	2.072	0.147		14.122	0.000
Zscore(Expert_power_1)	0.143	0.070	0.196	2.057	0.040
Zscore(Referent_power_1)	0.044	0.038	0.062	1.152	0.250
Zscore(Coercive_power_1)	-0.048	0.141	-0.025	-0.340	0.734
Zscore(Expert_power_without_child)	-0.075	0.072	-0.099	-1.032	0.303
Zscore(Coercive_power_without_child)	0.004	0.139	0.002	0.030	0.976
Participation_PP	0.949	0.136	0.350	6.983	0.000
Participation_WW	-0.167	0.073	-0.116	-2.298	0.022
Participation_CH	-0.170	0.078	-0.118	-2.194	0.029
4 (Constant)	2.215	0.239		9.267	0.000
Zscore(Expert_power_1)	0.147	0.071	0.201	2.063	0.040
Zscore(Referent_power_1)	0.046	0.039	0.065	1.190	0.235
Zscore(Coercive_power_1)	-0.051	0.142	-0.027	-0.359	0.720
Zscore(Expert_power_without_child)	-0.072	0.073	-0.096	-0.994	0.321

Zscore(Coercive_power_without_child)	0.013	0.139	0.007	0.096	0.923
Participation_PP	0.956	0.137	0.353	6.988	0.000
Participation_WW	-0.164	0.073	-0.114	-2.237	0.026
Participation_CH	-0.181	0.079	-0.126	-2.281	0.023
Age_Parent	0.010	0.037	0.014	0.269	0.788
Age_Child	-0.026	0.028	-0.049	-0.951	0.342
Education	-0.044	0.043	-0.051	-1.023	0.307

a. Dependent Variable: Dep1_1PPFreq

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.176 ^a	0.031	0.022	0.882
2	.181 ^b	0.033	0.019	0.884
3	.684 ^c	0.468	0.456	0.658
4	.687 ^d	0.472	0.454	0.659

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.544	3	2.848	3.661	.013 ^p
	Residual	268.402	345	0.778		
	Total	276.946	348			
2	Regression	9.080	5	1.816	2.325	.043 ^c
	Residual	267.866	343	0.781		
	Total	276.946	348			
3	Regression	129.739	8	16.217	37.457	.000 ^d
	Residual	147.206	340	0.433		
	Total	276.946	348			
4	Regression	130.588	11	11.872	27.335	.000 ^e
	Residual	146.358	337	0.434		
	Total	276.946	348			

a. Dependent Variable: Dep1_2WW

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

e. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.306	0.077		29.835	0.000
Zscore(Expert_power_1)	0.050	0.052	0.055	0.963	0.336
Zscore(Referent_power_1)	-0.046	0.050	-0.052	-0.913	0.362
Zscore(Coercive_power_1)	0.397	0.129	0.165	3.080	0.002
2 (Constant)	2.327	0.084		27.810	0.000
Zscore(Expert_power_1)	0.016	0.092	0.018	0.177	0.859
Zscore(Referent_power_1)	-0.053	0.051	-0.060	-1.042	0.298
Zscore(Coercive_power_1)	0.305	0.188	0.127	1.628	0.104
Zscore(Expert_power_without_child)	0.039	0.097	0.042	0.405	0.686
Zscore(Coercive_power_without_child)	0.121	0.186	0.052	0.652	0.515
3 (Constant)	1.646	0.147		11.194	0.000
Zscore(Expert_power_1)	-0.012	0.070	-0.014	-0.177	0.859
Zscore(Referent_power_1)	-0.011	0.038	-0.013	-0.292	0.770
Zscore(Coercive_power_1)	0.064	0.142	0.027	0.455	0.650
Zscore(Expert_power_without_child)	0.084	0.073	0.089	1.160	0.247
Zscore(Coercive_power_without_child)	0.066	0.139	0.029	0.479	0.632
Participation_PP	-0.126	0.136	-0.037	-0.922	0.357
Participation_WW	1.212	0.073	0.672	16.657	0.000
Participation_CH	-0.074	0.078	-0.041	-0.955	0.340
4 (Constant)	1.460	0.240		6.093	0.000
Zscore(Expert_power_1)	-0.022	0.071	-0.024	-0.309	0.758
Zscore(Referent_power_1)	-0.005	0.039	-0.006	-0.140	0.889
Zscore(Coercive_power_1)	0.054	0.142	0.023	0.381	0.704
Zscore(Expert_power_without_child)	0.090	0.073	0.096	1.238	0.216
Zscore(Coercive_power_without_child)	0.077	0.140	0.033	0.554	0.580

Participation_PP	-0.123	0.137	-0.036	-0.900	0.369
Participation_WW	1.204	0.073	0.668	16.399	0.000
Participation_CH	-0.063	0.080	-0.035	-0.794	0.428
Age_Parent	0.052	0.038	0.056	1.383	0.168
Age_Child	-0.007	0.028	-0.010	-0.236	0.814
Education	-0.001	0.043	-0.001	-0.013	0.990

a. Dependent Variable: Dep1_2WW

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.233 ^a	0.054	0.046	0.894
2	.235 ^b	0.055	0.041	0.896
3	.475 ^c	0.226	0.207	0.815
4	.483 ^d	0.233	0.208	0.814

a. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.800	3	5.267	6.594	.000 ^b
	Residual	275.553	345	0.799		
	Total	291.352	348			
2	Regression	16.078	5	3.216	4.007	.002 ^c
	Residual	275.274	343	0.803		
	Total	291.352	348			
3	Regression	65.726	8	8.216	12.381	.000 ^d
	Residual	225.626	340	0.664		
	Total	291.352	348			
4	Regression	67.965	11	6.179	9.321	.000 ^e
	Residual	223.387	337	0.663		
	Total	291.352	348			

a. Dependent Variable: Dep1_3CH

b. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1)

c. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child)

d. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH

e. Predictors: (Constant), Zscore(Coercive_power_1), Zscore(Expert_power_1), Zscore(Referent_power_1), Zscore(Coercive_power_without_child), Zscore(Expert_power_without_child), Participation_PP, Participation_WW, Participation_CH, Education, Age_Parent, Age_Child

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.227	0.078		28.430	0.000
Zscore(Expert_power_1)	0.209	0.053	0.223	3.978	0.000
Zscore(Referent_power_1)	-0.039	0.051	-0.043	-0.767	0.444
Zscore(Coercive_power_1)	-0.295	0.131	-0.120	-2.258	0.025
2 (Constant)	2.233	0.085		26.329	0.000
Zscore(Expert_power_1)	0.168	0.093	0.180	1.812	0.071
Zscore(Referent_power_1)	-0.045	0.052	-0.049	-0.861	0.390
Zscore(Coercive_power_1)	-0.327	0.190	-0.132	-1.717	0.087
Zscore(Expert_power_without_child)	0.051	0.098	0.052	0.516	0.606
Zscore(Coercive_power_without_child)	0.038	0.188	0.016	0.201	0.841
3 (Constant)	1.819	0.182		9.988	0.000
Zscore(Expert_power_1)	0.026	0.086	0.028	0.305	0.761
Zscore(Referent_power_1)	-0.017	0.047	-0.019	-0.359	0.720
Zscore(Coercive_power_1)	-0.136	0.175	-0.055	-0.775	0.439
Zscore(Expert_power_without_child)	0.026	0.090	0.027	0.289	0.773
Zscore(Coercive_power_without_child)	0.028	0.172	0.012	0.163	0.871
Participation_PP	0.152	0.169	0.044	0.899	0.369
Participation_WW	-0.016	0.090	-0.009	-0.182	0.855
Participation_CH	0.828	0.096	0.448	8.607	0.000
4 (Constant)	1.803	0.296		6.090	0.000
Zscore(Expert_power_1)	0.020	0.088	0.021	0.223	0.824
Zscore(Referent_power_1)	-0.010	0.048	-0.011	-0.199	0.842
Zscore(Coercive_power_1)	-0.150	0.176	-0.061	-0.852	0.395
Zscore(Expert_power_without_child)	0.035	0.090	0.036	0.388	0.699

Zscore(Coercive_power_without_child)	0.050	0.172	0.021	0.289	0.773
Participation_PP	0.160	0.169	0.046	0.945	0.345
Participation_WW	-0.020	0.091	-0.011	-0.220	0.826
Participation_CH	0.827	0.098	0.448	8.413	0.000
Age_Parent	0.062	0.046	0.066	1.343	0.180
Age_Child	-0.034	0.034	-0.050	-0.994	0.321
Education	-0.054	0.053	-0.049	-1.016	0.311

a. Dependent Variable: Dep1_3CH

Appendix 4: Ethical Clearance

Gordon Institute of Business Science

University
of Pretoria

10 August 2017

Kinola Pather

Dear Kinola,

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data conditional to the below:

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee