UNIVERSITY OF KWAZULU-NATAL

A STUDY TO TEST THE CONCEPT OF NEW PROTECTOR PLUS CONDOM VARIANTS

By

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Previous studies in the current market indicated that consumers related prices to the quality of the products. Respondents often perceived that the higher the price the better the quality. The qualities of the product and the price at which it will be distributed have to be well balanced (PSI, 1997).

The research tested the willingness of the target market to consume the preferred condom variants and price the product. The indication of willingness to consume was taken as an assumption that the introduction of the variant of condoms would result in the target market consuming more condoms and thereby practicing safer sex.

1.4 Problem Statement

Sub-Saharan Africa has just over 10% of the world's population, but is home to more than 60% of all people living with HIV—25.8 million [23.8 million–28.9 million]. In 2005, an estimated 3.2 million [2.8 million–3.9 million] people in the region became newly infected, while 2.4 million [2.1 million–2.7 million] adults and children died of AIDS. Among young people aged 15–24 years, an estimated 4.6% [4.2–5.5%] of women and 1.7% [1.3–2.2%] of men were living with HIV in 2005 (UNIAIDS/WHO, 2005)

Declines in adult national HIV prevalence appear to be underway in three sub-Saharan African countries: Kenya, Uganda and Zimbabwe (UNIAIDS, 2005). Condoms are highly recommended as a means of preventing the spread of HIV (Gershaw, 1991).

However, the use of condoms is not as high as it should be and KAP studies carried out by PSI have indicated that one reason for this is the unattractiveness of some of the condoms as perceived by the target market. PSI needs to sell more condoms but in order to do so they need to make condoms attractive and appealing.

Although condoms have been distributed and promoted since the AIDS pandemic started, condom sales across all countries are still low and one reason for this has been attributed to the fact that condoms are not attractive and people would prefer not to use them (PSI, 1997). Condom sales in Zimbabwe should be about 100 million a month in order to reach all the target population, total of 7 million condoms are sold and distributed freely on a monthly basis (Zimbabwe National Family Planning, 2005).

The figure of 100 million indicating the desired monthly condom sales was arrived at taking into account the estimated number of young people in Zimbabwe who are in the sexually active age group and the average number of times a person is presumed to engage in sex per month (Zimbabwe National Family Planning, 2005). This calculation is recognised in the family planning fraternity as couple year protection (CPY). The theory behind CPY assumes that couples in the sexually active age group engage in sex at least three times a week. The estimated figure of sexual active couples is multiplied by three acts a week to obtain the number of weekly acts that need protection. The weekly figures are multiplied by fifty-two weeks to give an annual figure. However this type of calculation does not take into account the other prevention methods for infection. Some couples are faithful to each other and do not need condoms for prevention of sexually transmitted infections.

The number of the condoms calculated is the estimation for the protection of all sexual acts in Zimbabwe (Zimbabwe National Family Planning, 2005) among the sexually active populace. The definition of the problem is:

Conjoint analysis can be carried out in a number of different ways but the most common method involves the pairing of individual attributes (preference – based or adaptive conjoint) or the pairing of complete product descriptions (choice - based or full profile conjoint) (Scott et al, 1996).

Some researchers (Scott et al, 1996) regard the choice – based approach as being more realistic, since real life purchasers choose between complete products not individual product attributes. These researchers also feel that it is a better process for handling price, since prices relate only to complete products.

Whilst the above mentioned points are clearly valid there are many situations in which the choice – based approach is too restricting, particularly in terms of the number of product and services features that can be included in the various product descriptions. The number of attributes can be increased in the choice based approach if the conjoint is administered by computer but if this is not feasible and the number of features to be considered is high, preference-based conjoint is the better alternative (Scott et al, 1996).

Any attributes that are not included in the conjoint analysis will not be measured unless they lie between attributes that have been chosen, in which case their utilities can be interpolated. Care must be taken to exclude unrealistic attributes, such as heavy discounts, since they will invariably attract scores, which swamp the others. Whilst this is not a crippling disadvantage, since they can be ignored, they can distort the other utilities and it is preferable to confine the approach to attributes it is feasible to offer. The attractiveness of conjoint analysis has increased as it has become easier to administer. The availability of proprietary techniques (such as Simalto and SMART), but more importantly the introduction of standard conjoint analysis packages (such as those which can be purchased from Sawtooth Software), have made conjoint accessible to all competent researchers (Scott et al, 1996).

Questionnaires were administered to 500 participants belonging to the target group of

- 16 29 years of age
- Living in high, medium and low density suburbs
- Sexually active in casual or short term regular relationships

A pilot study was conducted with 10 people. The results of the test showed the questionnaire's face validity, that is, whether the questionnaire appears to make sense (Saunders, 2003).

Semi structured group interviews with further representatives from the target groups were conducted to clarify the content of some of the questionnaire results. This will be essential to get the meaning behind some of the data. The interviewer also observed the respondents as they participated in the interviews and recorded any unique behaviour or comments that occurred during the sessions.

The multi-method approach will enable triangulation to take place. Triangulation refers to the use of different data collection methods within one study in order to ensure that multiple sources of data are collected with the hope that they will all converge to support a particular hypothesis or theory (Leedy and Ormrod, 2005).

For example, the researcher might engage in many informal observations and conduct structured group interviews and also administer questionnaires to respondents to support the validity of the findings (Leedy and Ormrod, 2005). Each of the methods to be used has its unique strengths and weaknesses (Saunders et al, 2003)

There is an inevitable relationship between the data collection method employed and the results that will be obtained. The results will be affected by the method used. It will be difficult to ascertain the nature of effect since the different methods will have different effects. It makes sense to use different methods to cancel out the 'method effect' (Saunders et al, 2003).

1.7 Significance of the Study

The study was carried out at a time when there was great concern at national, regional and international levels on the HIV prevalence in Zimbabwe. It is held that condoms are 99% effective in curbing the spread of HIV if used correctly and consistently (WHO, 2001). In fact the only reason why they are not rated 100% effective is because it is argued that some users do not use condoms consistently nor do they use them correctly.

1.8 Conclusion

PSI is socially marketing condoms in Zimbabwe to low and middle income earners 16 - 29 year olds. Protector Plus is being marketed under CSMP as one of the initiatives for fighting the HIV pandemic in Zimbabwe.

Condoms in Zimbabwe are distributed in three sectors namely the public sector - free condom, the private sector commercially marketed condom and the socially marketed condoms by PSI.

Social marketing involves subsidizing the cost of products thus the cost for PSI of getting one condom to the user is ZW\$4320 and the consumer pays ZW\$333 (PSI, 1997).

Protector Plus was launched in 1997 positioned as an affordable and reliable condom. Awareness, perception and usage study has revealed that Protector Plus is regarded as a boring product. Researcher wishes to determine whether it is worthwhile to launch a new Protector Plus with various attributes namely colour, flavour and texture.

A quantitative research employing hall testing approach was conducted and conjoint analysis was used to pick preferred attributes, determine the price of the product and test the new product concept. Condoms are highly regarded, as a means to preventing HIV; therefore, PSI needs to expand the distribution in order to protect more sexual acts. Information and theory on the role of the condom distribution in fighting the HIV epidemic was outlined in Chapter 2.

In Chapter 3 an overview of the techniques that were used in the research were outlined. The response rates and the results obtained from the study were presented in chapter 4, with the detailed findings, deemed to be important to the research proposal. The major findings of the research are summarised and discussed in Chapter 5, followed by recommendations and a conclusion in Chapter 6.

CHAPTER 2 The HIV/AIDS Epidemic

2.1 Introduction

HIV/AIDS continues to be of great concern in the world, as it has become the most devastating disease to face humankind. Since the epidemic began more than twenty years ago, more than 60 million people have been infected with the virus globally and 40 million adults are currently living with the virus worldwide, an increase from 35 million in 2001 (UNAIDS 2004, WH0 2004).

In an AIDS Epidemic Update (2004), it was reported that to date, HIV/AIDS has killed more than 20 million people worldwide and more than 3 million died from HIV/AIDS in 2003 alone. In the same report, it was reported that approximately five million people acquired the virus in 2003, the greatest number in any one year since the beginning of the epidemic. It is reported that globally, there are 14,000 new infections per day and 50% of these are reported to be taking place in the 15 – 24 years age group (UNFPA, 2004).

HIV prevalence seems to be highest in Sub-Saharan Africa, where at least 20% of people aged between 15 and 24 years have been reported to carry the virus (UNAIDS 2004, WHO 2004). In fact, about 28 million people are said to be infected with HIV in Africa and at least a third of these are young males aged about 15 years. AIDS is reported to be the largest killer disease in Sub Saharan Africa and the fourth-largest killer worldwide.

It should be noted however that although HIV/AIDS does not have a cure, it is preventable. Various intervention measures are encouraged in order to reduce the spread of HIV.

2.2 HIV Intervention Methods

In order to prevent HIV infection, people need to protect themselves. Various intervention methods can be employed in order to prevent HIV infection. Until recently, the most popular intervention measures have been the "*ABC*" of HIV prevention and of late some have extended these to the "ABCDE" of HIV prevention. The "ABCDE" of HIV entail:(UNAIDS 2004, WHO 2004)

- Abstinence this refers to a situation where people refrain from having sex. Although this is a desirable and the safest means of preventing HIV infection, it has been established to be unrealistic, (Gershaw, 1991). People are bound to engage in sex that is why the other preventative methods have been brought up.
- Be Faithful this advocates for one to be faithful to one uninfected partner. Again, a very desirable state of affairs but one that is not always attainable as mankind is prone to being unfaithful. Polygamy and extra marital affairs are therefore, a common feature. Poverty and lack of economic empowerment have been cited as some of the reasons why women become promiscuous as they will be trying to earn a living that way.(UNAIDS 2004)
- Correct and consistent use of condoms is also an intervention measure for the prevention of HIV infection. Promoting male and female condoms as a protective option along with abstinence, fidelity and reducing the number of sexual partners. Since man has generally been unable to practise the other preventative methods, condoms have become very popular as they can be used by anyone to prevent HIV infection. Condom use is the only intervention measure, which is technological. There is a need for the condoms to be used correctly and consistently for them to be an effective preventative measure from the HIV virus.(UNAIDS 2004)

- Delayed sexual debut this encourages people to delay indulging in sexual activities until they are mature. By delaying sexual activities people are likely to be more mature and more informed by the time they get to indulge in sexual activities.(UNAIDS 2004)
- Early treatment of sexually transmitted infections (STIs) as well as the prevention of sexually transmitted infections. Research has shown that early treatment of STIs can help prevent HIV infection as people who have STI infections are at a greater risk of contracting HIV than those without STI (Gershaw, 1991).

The other measures of intervention are highlighted below:

- VCT voluntary counselling and testing helps prevent HIV infection in that people are voluntarily counselled on HIV issues and hopefully get tested for HIV. Once one is tested, s/he knows his/her status and the counselling promotes behaviour change.
- Information dissemination is an intervention method. There is need to educate people
 on the risks associated with HIV/AIDS and the preventative measures. Various AIDS
 education and awareness programmes can be implemented.
- No premarital sex. People are discouraged from having premarital sex as a means of preventing the spread of HIV.
- Behaviour change programmes especially for young people and populations at higher risk of HIV exposure, as well as for people living with HIV.
- Primary prevention among pregnant women and prevention of mother-to-child transmission
- Harm reduction programmes for injecting drug users
- Measures to protect blood supply safety
- Infection control in health-care settings

- Community education and changes in laws and policies to counter stigma and discrimination
- Vulnerability reduction through social, legal and economic change (Gershaw, 1991).

2.3 HIV/AIDS and Condoms

It has been established that condoms can prevent the spread of HIV infection, or curb reinfection where infection has already taken place. In his article, Gershaw (1991) says, "condoms are a major means of preventing sexually transmitted infections (STIs) especially HIV." Gershaw (1991) goes on to say that although abstinence would be the best way of preventing HIV, it is not very realistic, as humankind will always engage in sex.

According to the United Nations Report (AIDS Epidemic 2004), all the intervention measures in HIV prevention always include the use of condoms and are incomplete without condoms. Thus, if one is going to promote VCT, condoms still remain an integral part of the intervention measure. In fact, the "ABCDE" is incomplete without condoms as condoms are an integral part of any intervention measure.

According to a UN report, "Male and female condoms are an essential component of such efforts and expanding and improving condom promotion and distribution is absolutely vital for the success in the fight against the spread of AIDS" (UNFPA, 2000)

This study is being carried out in support of the academic theory that condoms are effective for the prevention of the spread of AIDS. Earlier Knowledge Attitudes and Practices Studies have identified an unfulfilled need of a higher positioned condom. PSI/Zimbabwe has come up with condom variants that are tested for positioning in the identified gap to expand the product portfolio. The expansion of the product portfolio increases the consumer's choice of condoms available in the market. The assumption is that, if consumers have product (condoms) that satisfy their needs, and they have the ability to purchase them, they will purchase them and the result is an increase in condom usage. The main objective of the findings is maximisation of condom distribution/sales, thereby increasing condom usage in Zimbabwe and protecting more sexual acts.

KAP studies carried out by PSI/Zimbabwe have revealed that more than 85% of the targeted users perceive condoms to be effective in the prevention of the spread of HIV.

A study carried out in Sub Saharan Africa on the prevention of mother to child transmission revealed that at least 87% of the people believe that condoms are effective in the transmission of HIV. "Used correctly, condoms will prevent HIV transmission" (Population Action, 2000)

USAID (2004) supports abstinence, being faithful and correct, consistent use of condoms (ABCs). In a study on how previous behaviour has affected HIV prevalence, the prevalence has been reported to decline in three countries where condoms have been used, i.e. Uganda, Zambia and Thailand. In fact, Uganda was one of the first countries in Sub Saharan Africa to face the devastating effects of HIV/AIDS and faced the threat of having some villages completely wiped out. With the use of condoms however, this was reversed and in a study carried out, HIV infection in pregnant women was halved. Ironically, in the same study, HIV prevalence appears not to have declined in three other countries in which the study was carried out, i.e. Cameroon, Zimbabwe and Kenya.

Various reasons have been given for this but it is generally still accepted that condoms are still an important intervention method as far as HIV and AIDS are concerned (USAID, 2004).

Condoms are reported to be effective in reducing the risk of HIV infection. This was evidenced in studies of couples involving one infected partner and one uninfected partner known as "discordant couples". A study of discordant couples in Europe among 123 couples who reported consistent condom use, none of the uninfected partners contracted the virus. However, the results among 122 couples who used condoms inconsistently were that 12 of the uninfected partners became infected (USAID, 2004).

Laboratory tests on latex condoms indicate that they are very effective at curbing HIV infection because the pores in latex condoms are too small to enable the virus to pass through (AIDS-India, 2000).

A UNAIDS report (UNAIDS, 2004) advocates for expanding access to essential products like condoms to prevent HIV/AIDS and to limit the impact of the epidemic. In the same report, UNAIDS advocates for distributing condoms that are acceptable to the potential users hence the need for the introduction of the variants.

UNFPA also advocates for the promotion of safer sex behaviour to include ensuring that condoms are readily available and widely and correctly used (UNFPA, 2005).

There is a dispute to the condoms work theory by the religious organisations around the world. Among the most outspoken churches against the use of the condoms is the Roman Catholic Church, which disapproves of all forms of contraception.

Steve Bradshaw interviewed The Vatican's spokesman in his report for The Guardian in October 2003 and the Roman Catholic Church made it clear that despite all the research conducted the church discourage their followers from using condoms. The Catholic Church in Kenya burnt condoms and AIDS materials (Wanyeki, 1996).

The Roman Catholics argue that condoms are not 100% effective and estimate that they have a failure rate of up to 15%. The Roman Catholic Church advocates that people should be encouraged to abstain from premarital sex and be taught on the importance of faithfulness in marriage.

In Zambia, a non-branded campaign, which promotes "virgin power virgin pride and secondary virginity", which is run by Family Health International Zambia in conjunction with the religious organisations was launched. Churches in Zimbabwe advocated for campaigns of a similar nature but efforts by PSI/Zimbabwe to implement such communications were thwarted by various human rights and women's organisations. The Women In AIDS organisation felt that, such campaigns impinge on the rights of the girl child to choose how to live their lives whilst men are not discouraged from having multiple partners (PSI, 1998).

2.3.1 Condom effectiveness

Condoms are designed to bar transmission of the human immunodeficiency virus (HIV), but they sometimes fail. Meta-analysis conducted on data from in vivo studies of HIV discordant sexual partners is used to estimate the protective effect of condoms. Although contraceptive research indicates that condoms are 87% effective in preventing pregnancy, results of HIV transmission studies indicate that condoms may reduce risk of HIV infection by approximately 69%. Thus, efficacy may be much lower than commonly assumed, although results should be viewed tentatively due to design limitations in the original studies (Weller, 1993)

2.3.2 How often do condoms break?

The studies do not agree on an exact rate of breakage. Many studies of condom effectiveness have counted how often women whose partners used condoms for birth control have gotten pregnant. This "failure rate" includes cases where the couple did not use a condom every time they had sex or used the condoms incorrectly. Some studies have included the times the condom was torn accidentally by the people using it. Studies in other countries of breakage caused by defects in the condom itself show a breakage rate ranging from 0% to 7%. In the United States, most studies show the breakage rate is less than 2 out of every 100 condoms, probably less than 1 out of every 100 (Centers for Disease Control and Prevention, 1993.)

Results of retrospective studies conducted in different countries, among diverse groups of men and women (e.g. of various sexual orientations, ages, occupations), also suggest that less experience with condom use is related to condom failure. (Richters, 1995; Linberg, 1997, Grady; 1994) Although other factors may contribute, some researchers attribute exceptionally low failure rates among sex workers to the considerable experience the sex workers have using condoms. (Albert 1995; Richters, 1988) In contrast to such results, two studies did not find an association between level of experience and condom failure. (Spruyt et al, 1998, Trussell, 1992b)

Research has also evaluated age, education and income for potential relationships with condom failure. Results from the two evaluations of polyurethane condoms suggest that being 25 years old or younger may be related to condom breakage (Nelson 1997, 1996).

A study among commercial sex workers found that breakage was less likely among clients who were more than 30 years old (Rugpao, 1997). Another study including men from health clinics found higher slippage rates among young men. (Richters, 1995) At least three studies did not find this association, however. (Spruyt et al, 1998; Grady, 1994, Steiner 1993)

Some research also suggests that less education (measured in years of formal schooling) is related to condom failure. (Steiner 1993; Spruyt et al, 1998) Although participants with less education reported more condom failure in both of the polyurethane condom trials and in a U.S. national survey of men, there were not statistically significant differences in these rates (Nelson 1997, 1996; Grady). At least four studies in the U.S. (two prospective, two retrospective) have evaluated the relationship between income and condom failure. All four suggest less income is a risk factor for breakage and/or slippage. (Nelson 1997, 1996; Linberg; Grady, 1994).

Among U.S. studies reviewed here, four have evaluated the relationship between ethnicity/race and condom failure. Although these finding are relevant to the U.S., they may have little application to other regions and cultures. Two of these studies suggest that male ethnic/racial minorities are more likely to experience condom failure (Nelson 1997; Grady, 1994). Two others reported higher failure rates among male minorities; however, the differences were not statistically significant. (Nelson 1996; Steiner 1993)

2.3.3 User Behaviours and Condom Failure

The term "condom failure rate" is not very specific. Any assessment of condom effectiveness must distinguish between user effectiveness (or failure) and product effectiveness (or failure).

"Condom failure rate" is often imprecisely used to refer to a percentage of women who become pregnant over the course of a year in which they reported using condoms as their primary method of birth control, even if they did not use condoms every time they had sex (Center for Disease Control and Prevention, 1997).

Studies that do not distinguish between consistent, inconsistent and non-user cannot adequately address the issue of condom effectiveness. A simple analogy would be to say that seat belts don't work because there are accidents in which passengers are hurt because they are not wearing them. Clearly, seat belts do not work unless they are used. Equally as clear, condoms do not work unless they are used. At other times, "condom failure rate" refers to the percentage of condoms that break during laboratory stress tests — a measure of product failure. Or it refers to the number of couples who report that a condom broke or slipped (typically the result of user error, not product failure) (Center for Disease Control and Prevention, 1997).

The average published condom breakage rate is around 3 percent. The majority of breaks do not result in exposure, and it is clear that most breaks occur as the result of incorrect use. A study (Trussell et al, 1992) suggests that regular condom use may lead to condom mastery and the development of techniques to reduce the likelihood of breakage and slippage.

Prospective studies and anecdotal evidence suggest that several behaviours may be associated with condom failure, including: opening condom packages with sharp objects, unrolling the condom before donning, lengthy or vigorous sex, using excessive lubrication (especially oil-based lubricants), reducing natural vaginal lubrication, anal or oral inter-course, having intercourse in specific positions, and re-use of condoms (Spruyt, 1998).

A study in Mexico, the Philippines and the Dominican Republic (386 men, 1,810 condoms) was designed in part to evaluate behaviours that may lead to condom failure. Condom breakage was associated with opening condom packages with sharp objects (teeth, scissors, knives or pencils), and both breakage and slippage were associated with unrolling condoms before donning. (Spruyt et al, 1998) Findings from the two large polyurethane condom trials were mixed: difficulty donning condoms was associated with breakage in one study but not in the other. (Nelson 1997, 1996) Another study conducted among male STD and general practice clients provides evidence that pulling condoms on with fingers on the inside may reduce the risk of failure. (Richters, 1995)

2.3.4 Behaviour change

Important factors for large-scale changes in behaviour regarding condom use include promotional campaigns, reaching men and effective counselling. Promotional campaigns in particular have resulted in sharp increases in condom use in many countries. For example, in the early 1980s, there were less than 1 million annual condoms sales in sub-Saharan Africa. (PSI) In 1996, there were nearly 20 million condoms sold a year in Ethiopia alone. Experts in Africa see the pattern of large-scale condom sales across sub-Saharan Africa as evidence of major behavioural change among African men (Finger, 1996).

The climate for mass media messages about AIDS and condoms has substantially improved since the early 1990s. When Archbishop Desmond Tutu, the prominent and well-respected clergyman in Africa, endorsed condom use on South African television, it affected not only social norms about condom use but also media access. For years, social marketers had battled to gain access to mass media. As recently as 1990, for example, the word "condom" was prohibited in advertising by the government of Kenya. Today, more explicit advertising is permitted in many parts of the world (Spruyt and Finger, 1996).

This leaves the option of barrier protection like condoms as one of the effective tools to combat the disease and thus the need to expand condom distribution in Zimbabwe. The rhetoric that comes from groups that preach abstinence only is not based on science or psychology but on the fear of and threats of hell. There is also a number of disturbing researches by reputable organisations that suggest there has not been nearly enough scientific study on the reliability of condoms to protect against STIs.

Whilst condoms are the best-proven protection for sexually active women and men to prevent against STD infection, they may not be as effective as people think. "I primarily use condoms to protect against knocking the girl up", says an anonymous 25-year –old SAIC student. "STD prevention is secondary, but I assume I'm covered if I use a condom" (Fnews Magazine, 2006).

Studies also suggest that young people today do not practice proper condom use. Achieving correct condom use is difficult. There are issues of leaving enough space at the end of the condom in order to provide room for the semen, using a condom before any penetration occurs and never using Vaseline or anything that is not water based as a lubricant (Fnews Magazine, 2006.)

With the advent of the AIDS crisis and the significant public attention to STIs, condom use has been on the rise. Significant numbers of people are using condoms for protection against infection but there has not been a proportionate increase in scientific evidence of effectiveness of condom use. There is remarkably little research on condoms and STIs (Fnews Magazine, 2006). Studying the true effects of condoms and STIs is difficult because people's sexual lives differ. Simply asking the question what is the scientific evidence of effectiveness of latex male condom-use to prevent STD transmission during vaginal intercourse? There is little research to answer that question fully, there is far less about sex between two men or two women or about all the ways even a man and a woman can be intimate beyond just vaginal intercourse. 2006. It is possible to technically be a virgin and be infected by an STI (Fnews Magazine, 2006).

Condoms do help by preventing unwanted pregnancies and it can prevent death, people cannot cover their whole bodies with a sheath. Sex is more than just penetration. Sex is touching, petting, playing. Sex can involve more than just a vagina and a penis; it comes in many configurations and can involve many other body parts. Condoms alone cannot protect humans from all the ways humans can find to be intimate or that disease can find to infect (Fnews Magazine, 2006).

2.4 Condom Distribution and Segmentation

It was reported that Asia needs 24 billion condoms per month to combat HIV/AIDS yet only less than 9 billion condoms are being distributed annually (WHO, 2003).

Zimbabwe needs to distribute about 100 million condoms per month (according to the couple year protection calculations) but is currently distributing free government condoms and selling less than 10% of this figure.

Protector Plus condoms are targeted at,

- Primary 16 –24 years
- Secondary 25 29 year olds
- Living in high, medium and low density suburbs
- Sexually active in casual or short term regular relationships

This target market was chosen because it is the worst affected age group by HIV/AIDS. PSI also chose a target market that has media reach for communications purposes. The communication strategies include mass media channels like television, radios, newspapers, magazines bus stop signs, billboards and floor space in supermarkets.

There is also below the line communication strategies, such as interpersonal communication during company and college training programmes which are conducted on company premises. These include demonstrations of product usage using model genitalia. Town dwellers have access to at least one of the mass media channels, training sessions in the homes, colleges or workplace.

HIV infection in Zimbabwe affects the general population; therefore, the communications had to be directed to the wider population. Considering that the youth are the group at higher risk of the pandemic, PSI Zimbabwe hopes that a dollar spent on the youth is most likely to yield results and prevent the spread of HIV and AIDS (PSI, 1997)

Socially marketed products are distributed at a price. For this reason PSI does not actively target the rural population where most of the people do not have regular income and are not in formal employment. This is a segment that they have left for the distribution of the public sector condom that is given out for free.

2.5 Consumer Buying Behaviour and Product choice

Only limited data exist on textured or ribbed condoms. About 25 percent of the Consumer Reports respondents indicated that they preferred textured condoms, while a similar proportion responded that they would not use them. Except for condom colour, ribbing was the least frequently mentioned characteristic looked for by condom users in the U.S. survey (Grady, 1994).

Improving the acceptability of condoms is a multi-faceted process. Surveys indicate many reasons why people do not use condoms, ranging from diminished sexual pleasure to fear of a partner's reaction. In the AIDS era, many types of efforts are being used to change sexual behaviours; with increased condom use a primary strategy for reducing the spread of all STDs. Increasing condom use will require more government and cultural approval, increased availability of condoms, more information, increased skill on negotiating condom use, more promotion, and better and more focused counselling. In light of this line of thought this research seeks to find the effects of introducing Protector plus variant on acceptability and use of condoms among the 16 to 29 age category.

Changes in product attributes do not appear to play an important role at this point in getting people to use condoms initially. However, changes might make people more willing to keep using condoms once they start. Limited research suggests that use of additional lubricants could increase acceptability among some groups. With some exceptions, variations in width, thickness and latex formulation generally appear to have limited impact on acceptability. Changes in shape appear to offer some promise for increased acceptance of condom use among certain groups. Limited research comparing latex to synthetic condoms suggests comparable acceptability with potential for future advances.

PSI Zimbabwe is a social marketing organisation and therefore employs business-marketing strategies to market products for social health. To achieve this they employ business-marketing methods (PSI, 1996). They use marketing research based decisions in all strategies. In 1996 when the programme was launched in Zimbabwe a Knowledge Attitudes and Practices Study was conducted.

This study was conducted in order to evaluate the knowledge of the targeted consumers with regards to HIV/AIDS and methods of protecting themselves. There were five stages of consumer buying behaviour that were evaluated (PSI, 1996)

2.5.1 Need Recognition

Studies conducted when the programme was about to be launched indicated that of all categories in Zimbabwe, the youth had high awareness of the HIV/AIDS pandemic with an awareness percentage of 97% (PSI, 1996). It was therefore decided that there was no need to devote resources into informing people that there was AIDS because they already knew that the problem existed. The perception of self-risk was 35%. This means that although almost everyone was aware of the HIV/AIDS and less than half of the population thought there was any risk to themselves as individuals. One of the most common reasons for this was what it is now commonly referred to as the married or steady partner myth (PSI, 1996).

Many researchers have found that in many places around the world the marriage partner myth is one of the biggest hindrances of condom use. Despite not knowing one's partner's HIV status it has been proved that people use condoms for the first few weeks and stop as soon as they feel that they are regular partners (UNAIDS, 1994, WHO, 1994).

PSI is involved in information sharing with many other organisations such World Health Organisation, UNAIDS and many other smaller ones. Information about the low self-risk perception was already anticipated. A campaign to educate consumers that all sexually active people are at some risk was conducted by peer educators in schools, colleges, workplaces and hairdressing salons (PSI, 1996). After 18 months a media impact study revealed that there was a remarkable improvement, with perception of self-risk rising from 35% to 71% (PSI, 1997). PSI continually conducts non-branded communications that they have named generic communications, to keep reminding the consumers that they are at risk.

2.5.2 Information Search

The respondents were also evaluated to see whether they had other information sources of effectively dealing with the problem. 77% of the respondents recognised that condoms could effectively reduce their chances of contracting HIV/AIDS. The source of information came from peer educators in colleges and work places. 85% said that their friends' approval of the solution was important (PSI, 1996). Televisions, the internet and radios were also named as important sources of information. PSI used this information and has a heavy electronic media presence (PSI, 1996). A special programme called AIDSCORP was set up to give support to peer educators in colleges, workplaces and beauty salons (PSI, 1996).

2.5.3 Evaluation of Different Purchase Options

The respondents were aware of the brand of condoms that were available in the market. The commonly named two brands were the public sector condom and Durex. 70% respondents said they were using free public sector condoms because Durex was expensive. 81% said they would consider buying condoms if they were affordable. This information was used when PSI priced the condoms for the launch of the programme. The launch pack in 1997 had a price of Z\$3.00 in bold red print in the corner.

2.5.4 Purchase Decision

90% of the respondents reported that they were embarrassed to buy condoms. This information was used to launch the first Protector Plus branded advertising campaign that addressed the embarrassment effect. PSI turned the embarrassment issue around in 18 months and lowered the percentage of people who reported that they were embarrassed to buy condoms to 40% in 18 months (PSI, 1997).

2.5.5 Post Purchase Behaviour

There is always a danger that after purchase of a product the consumer may have negative feelings or feeling of disappointment. PSI implemented communication strategies aimed at congratulating consumers for having purchased condoms. Endorsement adverts featuring celebrities endorsing condom purchase were used. This resulted in a positive attitude towards condom use. When respondents were asked if they would recommend condom purchase to their family and friends 78% said yes after 18 months of the campaign (PSI, 1997).

Marketing Research is an ongoing activity at PSI and a department headed by Dr Noah Taruberekera is always engaged in researching and monitoring the mood of the consumer. Other marketing strategies outlined below are run alongside the marketing research efforts (PSI, 1997).

2.6 Social Marketing

The term social marketing was first coined by Kotler and Zaltman in 1971 to refer to the application of marketing to the solution of social and health problems. Marketing has been remarkably successful in encouraging people to buy products such as Coca Cola and Nike trainers, so, the argument runs; it can also encourage people to adopt behaviours that will enhance their own - and their fellow citizens' – lives (MacFadyen et al, 1999).

During the 1960s, commercial marketing technologies began to be applied to health education campaigns in developing countries (Ling et al 1992, Manoff, 1985). Kotler and Zaltman(1971, p5) defined social marketing as "the design, implementation and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution and marketing research".

Many social and health problems have behavioural causes, for example; the spread of AIDS, traffic accidents and unwanted pregnancies are all the result of everyday, voluntary human activity. Exchange in social marketing puts a key emphasis on voluntary behaviour. To facilitate voluntary exchanges social marketers have to offer people something that they really want. For example, suppose that during the development of a programme to reduce teenage prevalence of sexually transmitted diseases (STDs) by encouraging condom use, research with the target finds that they are more concerned with pregnancy than STDs. The social marketer should consider highlighting the contraceptive benefits of condoms, rather than, or at least as well as, the disease prevention ones. In this way consumer research can identify the benefits which are associated with a particular behaviour change, thereby facilitating the voluntary exchange process. Social marketing provides a mechanism for tackling such problems by encouraging people to adopt healthier lifestyles (MacFadyen et al, 1999).

Social marketing, like generic marketing, is not a theory in itself. Rather, it is a framework or structure that draws from many other bodies of knowledge such as psychology, sociology, anthropology and communications theory to understand how to influence people's behaviour (Kotler and Zaltman, 1971).

Like generic marketing, social marketing offers a logical planning process involving consumer oriented research, marketing analysis, market segmentation, objective setting and the identification of strategies and tactics. It is based on the voluntary exchange of costs and benefits between two or more parties (Kotler and Zaltman, 1971). However, social marketing is more difficult than generic marketing. It involves changing intractable behaviours, in complex economic, social and political climates with often very limited resources (Lefebvre and Flora, 1988). Furthermore, while, for generic marketing the ultimate goal is to meet shareholder objectives, for the social marketer the bottom line is to meet society's desire to improve its citizens' quality of life. In line with this notion, PSI Zimbabwe, has adopted social marketing in their quest to prevent the spread of HIV and AIDS by providing cheaper condoms to the populace and thus improving the quality of life.

By far, the most dramatic factor in this increased condom use is the international funding for AIDS prevention campaigns, and specifically, the expansion of social marketing programs in all regions of the world. In Haiti, for example, an expanded social marketing campaign took condom sales from 250,000 per month in 1992 to 540,000 a month in 1996. In Nepal, sales went from 465,000 condoms a month in 1994 to about 1 million a month in 1997 (Spruyt, 1998).

Social marketing is the application of commercial marketing techniques to achieve a socially beneficial goal. It involves market research, message testing, mass media advertising, consumer education, effective use of news media and public relations, product promotion at the point of purchase, increased access to products and affordable pricing. Generally, the condoms are subsidized so that prices can be kept low enough for users to buy them but high enough for merchants to have an incentive to sell them. In Nepal, for example, a sales force concentrated on the highways into the country from India, a known route for HIV transmission. From 1994 to 1997, the number of outlets stocking condoms increased from three pharmacies to 56 retail outlets, including pharmacies, tea shops, liquor shops and others (Spruyt, 1998).

2.6.1 Product and Packaging

The targeted segment is wide in both age and income levels. PSI conducted an awareness, perception and usage study (project "Vista") in 2004. This study revealed that Protector Plus condoms are viewed as adequate for HIV prevention but are seen as a boring product.

The same study showed that the privately marketed condoms Carex and Durex were perceived to be more exciting but most respondents reported that they were too expensive and beyond their affordability. The Consumer Council of Zimbabwe in their annual report on the breadbasket reported the same results (The Zimbabwe Consumer, 2003).

At the revelation of this perception PSI repacked the condoms and removed the dated packaging, which was also viewed as being clinical. The marketing department responded to these issues using marketing tools such as repackaging and marketing communications (PSI, 2003).

2.6.2 Marketing Communications

The main marketing strategy used by PSI is marketing communications. Previous successful marketing and communications efforts have addressed consumer behaviour issues. When Protector Plus was introduced consumers were embarrassed to be seen purchasing condoms. PSI marketing department responded by packaging the condoms in bright colours like sweets and placing them on the counters near the tills with sweets and cigarettes.

Mass media endorsement adverts showing the purchase of condoms as a normal everyday practice were on radio, television, bins, billboards, bus shelters, trains and commuter omnibuses (PSI, 1996).

A media impact study was conducted 18 months after the campaign and the attitude of the nation to the purchase of condoms had become positive (PSI, 1997).

In response to the clinical image of the Protector Plus a new communications campaign was launched that was named "What smart guys are wearing". The campaign was inspirational and aimed at positioning the protector plus condoms as a modern, trendy, fashion accessory.

This campaign had two main objectives. The objectives were, to continue reinforcing the message that Protector Plus is a necessary and fashionable product and a must have for the trendy youths. This was to play into the minds of the young impressionable youth who aspire to better themselves (PSI, 2004). The campaign resulted in a massive increase in sales by about 50%. The 2004 monthly sales were averaging about 4500 condoms a month.

2.6.3 Condom Distribution and Condom Variety

PSI promotes condom use as a means to prevent the spread of HIV and other sexually transmitted diseases (STD) among youth and other persons at risk for these diseases. Condom distribution, a strategy for increasing condom availability, is a principal component of risk reduction interventions targeting persons and condom availability has been enhanced via the application of social marketing principles (Coyle, 1998, Kirby et al, 1999, Cohen, 1999).

With the establishment of effective condom distribution systems, public health professionals are then challenged to encourage the use of these systems by those at risk.

Condom distribution setting, condom cost and provision of a variety of condoms are all factors that may influence people to acquire condoms (Amass et al, 1993, Jere, 1998). These factors especially condom cost and the provision of a variety of condoms with attributes like colour, flavour and texture motivated this study.

There are a wide variety of condoms on the market, with at least 70 types differing by brand name, size, texture, thickness, colour, flavour, scent, lubrication level and lubrication type (Condom Express, 2001). The range of condom properties offered suggests that manufacturers are not only responsive to matters related to condom utility; they are also seeking to satisfy user's particular preferences. Among condom users, condom acceptability is influenced by characteristics such as shape, size and amount of lubrication (Garside, 1999). These and other potentially desirable characteristics can vary from one brand name to another. The current study examines the concept of new Protector Plus variants that of texture colour and flavour.

The offering of assorted brand name condoms may appeal to persons in several ways. Merely the uniqueness of the packaging (e.g., wrapper colour or design), condom brand name (e.g., Protector Plus, Maxx Plus[®]), or condom style (e.g., flavoured or coloured) may induce people to take them. In addition, as previously stated, shape, size and amount of lubrication can influence condom acceptability. Those who find these characteristics acceptable may see them identified on the condom label or they may infer them from the brand name. Lastly, people may have familiarity with or loyalty to a particular brand name or they may simply be interested in experimenting with new ones (Garfield, 1999).

In Zimbabwe the most successful marketer is known to be Coca-Cola. When companies measure the success of distribution strategies employed, Coca-Cola is used as the benchmark.

PSI used the same method and the sales force has instructions to stock all shops within the target market areas like Coca-Cola. The sales force is also evaluated by what is called the 5-minute rule. Under this 5-minute rule it means that in any urban area in Zimbabwe it should not take any consumers more than five minutes to walk to an outlet that sells condoms to buy a condom if they need it (PSI, 2004).

The commission of the sales force is not based on sales only but on coverage to discourage the sales force from going to stock big supermarkets that sell large amounts only at the expense of convenience to the consumer.

With all this marketing effort the sales the 2005 sales figures have averaged between 7 000 – 7 500 condoms a month. This figure has remained constant during the first 6 months of 2006 almost indicating a plateau (PSI, 2006). The distribution of the condoms was wide and growing daily. The population knew were to purchase the condoms. Condoms were recognised as an effective HIV/AIDS prevention and yet the sales were not growing proportionately to scale with the resources being utilised. It seemed the right time to introduce market expansion strategies, which included placing condoms in more selling outlets. This option was not viable because almost all urban retailers including beer halls and bottle stores either sell Protector Plus or have been offered the choice of selling Protector Plus (PSI, 2006).

The other option was to conduct what is called "market penetration" – this involves selling more products into the same market (Learn Marketing, 2006).

To achieve market penetration product extensions have been proposed. It is hoped that product extensions will increase condom usage and encourage the people who do not view condom use as exciting to try the rejuvenated variants.

2.6.3 Product development

As the economy of Zimbabwe continues to struggle condoms are viewed as pleasure items and are not included on the shopping list when money is scarce. For this reason condom prices for PSI have been kept very low and respondents reported that they are very affordable (Vista 2004).

PSI has come up with an idea of trying to expand distribution by introducing condoms that have the same characteristics, (colour, texture and flavour) as the Durex and Carex condoms at a price that the target market will find affordable. The donor will subsidize most of the cost. This condom will be positioned in between the current Protector Plus and the private highly perceived Durex and Carex varieties (PSI, 2006).

The aim is to continue marketing the Protector Plus plain to mainly the primary 16-24 year olds who are mostly still in school and colleges and have very little cash whilst targeting the secondary 25- 29 years with the more luxurious variants at a slightly higher price that they are able to afford and the rest of the cost will be subsidized by the donor.

The ideal situation would be to introduce a Protector Plus variant that has the characteristics that the target market admires in the highly positioned Carex and Durex whilst distributing the condoms at a price that is both affordable and believable that it is an exciting product compared to the Protector Plus plain. Protector Plus continued to be sold despite having a reputation for being clinical and boring, as the Vista project also revealed that it was viewed to be the most effective for HIV prevention and has a brand loyal base of the younger boys within the primary age group of 16 -24 who are using it regularly.

The main aim is to increase the total number of condoms distributed and the overall use of condoms in Zimbabwe. The research is being carried out to explore the possibility of introducing condom variants so as to make condoms more appealing and exciting, leading to greater condom use whilst avoiding cannibalisation.

2.7 Conclusion

HIV/AIDS continues to be one of the world's highest killers. Figures of infections are estimated to be 14 000 new infections every day (UNAIDS/WHO, 2005). The prevalence is in Sub-Saharan Africa where 20% of people aged 15 – 24 have been reported to carry the virus. HIV/AIDS does not have a cure but it is preventable (UNAIDS/WHO, 2005). The most popular methods of prevention are the ABCDE of HIV prevention, which entail:

- A Abstinence
- B be faithful to one partner
- C Correct consistent use of condoms
- D Delayed sexual debut
- E Early treatment of STIs

It has been established that condoms can prevent HIV infection or curb re-infection where infection has already taken place.

The most effective way of preventing HIV is abstinence, which is not realistic, as humankind will always engage in sex. UNAIDS advocates that intervention measures in HIV should always include condoms to be complete.

The Catholic Churches and other religious organisations advocate for abstinence before marriage and faithfulness to one partner and emphasize the risk of failure of condoms

Marketing communications have been employed to increase the sales and there has been some success. Another way of expanding distribution is through product development. PSI has developed condom variants that the target market perceives to be exciting in Carex and Durex condoms whilst distributing them at a price affordable to them.

A quantitative research study utilizing conjoint analysis through hall test approach to determine preferred attributes levels was conducted. The detailed information of the research methodology is outlined in Chapter 3.

CHAPTER 3 Research Methodology

3.1 Introduction

This chapter gives an overview of the techniques that were used in this research. As there was a need for sample data to generalise about all the cases from which the sample was selected, quantitative research was carried out to achieve the objectives of the dissertation. It was not necessary to conduct research on the entire population as quantitative research is the accurate measurement of aspects of the market that produces results that can be statistically analysed and expressed numerically. It is based on careful measurement of aspects of the market such as market size, distribution levels and sales trends (Bird, 2003). Therefore, the capital Harare was chosen to represent the large cities and Chinhoyi was selected to represent the smaller towns. A non-probability sample of 350 respondents was selected from Harare and 150 respondents were from Chinhoyi. The research was carried out from June 2006 to March 2007. The chapter details the research design and defines the study population, sampling procedures and data collection processes.

3.2 Objectives of the Study

The overall objective of this study was to establish attributes for the new Protector Plus (PP) variant in terms of colour, flavour and texture. In order to achieve the aims of the study, the following specific objectives were formulated:

- (a) To establish attitudes and perceptions towards the proposed Protector Plus variants
- (b) To establish preferences among colours, textures and flavours separately
- (c) To compare the new colour/texture/flavour variants with plain
 Protector Plus
- (d) To establish whether consumers are willing to pay a premium for the new Protector Plus variants
- (e) To investigate the likely effect of introducing variants whether there will be cannibalisation of Protector Plus or market expansion
- (f) To gather cues for brand image/positioning development
- (g) To establish the importance of each attribute, i.e. the amount of influence that it has on the buyer's decision.
- (h) To establish within each attribute, the utility (or value) of each level.

3.3 Research Design

This study was a quantitative research design employing hall testing approach. Normally hall tests are run at a central venue for part or the whole of the day, with more than 100 respondents typically interviewed (Power Marketing, 2003). To add, hall tests incorporate the ability for longer, more complex interviews to be conducted. Respondents are recruited from the high streets adjacent to the venues and nominal incentives are provided in order to ensure co-operation (Resource, 2004). Purposively selected people from the streets were invited to the hall where they were asked about the Protector Plus condoms.

These types of tests are most often used to evaluate new product concepts and they can also be used to get opinions on such things as advertising, the price, the product name or packaging in marketing research (Bird, 2003). The tests were also the most suitable for this research where questions were about sensitive sexual issues and preferences in condom use that respondents may not have wished to discuss in public, for example they were asked to name the brands of condoms that they had used during sexual intercourse. Participants were exposed to different possible attributes and attribute combinations and had to make their preference ratings. The ratings set the stage for conjoint analysis. Conjoint analysis is discussed below.

3.3.1 Conjoint Analysis

The quantitative study utilized conjoint analysis through hall test approach to determine the preferred attribute levels. Conjoint analysis is an extremely powerful technique used to pick preferred attributes. Conjoint analysis can be used in the selection of features to be offered on a new product or to be added onto an already existing product for brand improvement (Smith, 2006). It produces estimates of the 'utilities', or values, which respondents attach to specific product features or service attributes. The best combination of features or attributes (the consumers' ideal product) is that which results in the highest total utilities – or, put another way, the highest-level combination is clearly shown by the reduction in total utility that results (Smith, 2006). In the study the researcher wanted to determine what value the respondents attached to the colour, texture and flavour of the condoms and ultimately what utilities the best condom should have to satisfy the target market.

Other instances where conjoint analysis could be used are in the determination of a price of a product or service, the forecast of sales levels or to test a new product concept (Akar *et al*, 2001). The technique provides a quantitative measure of the relative importance of an attribute.

The attractiveness of conjoint analysis has increased with the availability of proprietary techniques (such as Simalto and SMART), but more importantly the introduction of conjoint analysis packages (such as those which can be purchased from Sawtooth Software), which have made conjoint analysis accessible to all competent researchers.

In this research, participants were asked to select the attributes they most preferred in the proposed condom variant. The participant had to choose the colour, flavour and/or texture they most preferred and in doing so they had to make trade off judgements. This involved the participants having to make the decision whether one feature is desired enough to sacrifice another. The key to the success of the technique lies in the selection of the attributes that are to be covered. Attributes that are not included in the conjoint analysis will not be measured unless they lie between attributes that have been chosen in which case their utilities can be interpolated. Selection criteria for the attributes that were measured were set by the results of an Awareness, Perception and Usage Study which was conducted in 2004 by PSI. The study revealed that the target market perceived Carex and Durex condoms to be more exciting products. Products with similar attributes of colour, texture and flavour were developed in order to find out if respondents would find them favourable (PSI, 2004).

Some researchers regard the choice-based approach as being more realistic, since in real life purchasers choose between complete products not individual product attributes. Conjoint analysis simulates this process by presenting respondents with a series of paired product variables between which they have to choose. Its main research advantage it that it provides an independent weighting of each attribute – i.e. one that is not influenced by other attributes that are being covered. It is a better process for handling price, since prices relate only to complete products (West, 1999).

An example of how conjoint analysis was used is as follows:

Participants had to choose the most preferred colour out of the 7 colours black, blue, green, lilac, pink, red or yellow. When frequencies were run, Non/plain was the most preferred condom colour, followed by blue, yellow, pink and red was the least preferred colour across all sub samples.

The data gathered for preferred condom colours was then further subjected to conjoint analysis, which is universally regarded as being more reliable in determining consumer preferences compared to normal frequencies.

After selecting their most preferred colour the respondents were requested to choose their most preferred flavour out of 5 flavours and then the texture out of 4 textures, ribbed, ultra thin, dotted and plain.

Finally participants were asked to select condoms by making combinations of attributes centred on flavour i.e. coming up with their favourite colour, flavour and texture combinations.

3.3.2 Other Methods Employed

Semi structured group interviews were further conducted with two groups, 12 females and 12 males from the target groups to check for consistence in terms of the content of some of the data from the questionnaire results. This was essential for probing and getting in-depth meaning behind some of the data collected from the questionnaires.

The researcher also used observation methods and noted down behaviour of interest during the sessions with an example of the obvious excitement and nodding that occurred when the strawberry flavoured condom was shown.

The multi-method approach enabled triangulation to take place. Triangulation refers to the use of different data collection methods within one study in order to ensure that the data is consistent. For example, semi structured group interviews may be valuable way of triangulating data collected by other means such as a questionnaire. Each of the methods used has its unique strengths and weaknesses (Saunders *et al*, 2003).

There is an inevitable relationship between the data collection method employed and the results obtained. The results were affected by the method used. It will be difficult to ascertain the nature of effect since the different methods will have different effects; it makes sense to use different methods to cancel out the 'method effect' (Saunders *et al*, 2003).

3.4 Sampling Technique and Description of the Sample

Purposive sampling was employed. This is whereby people or other units are chosen, as the name implies, for a particular purpose (Leedy and Ormrod, 2005). In this study it was used to capture the different preferences of the condom variants. Harare was chosen to represent the large cities and Chinhoyi was chosen to represent the smaller towns.

Both males and females' respondents fell in the 16 - 29 age categories and were drawn from the high, medium and low-density suburbs. Of the 500 participants, 50% of the respondents were male and 50% were female.

Despite this being non-probability sampling which is associated with reduction in the ability to generalise about the population as a whole PSI annual Knowledge and Attitudes and Practices surveys which have been conducted for the past 5 consecutive years have all indicated that the sexual practices and attitudes within this age group are similar. They have also shown that the young Zimbabwean women are now making important and almost equal decisions about sex and condoms with their partners and the decision was made to give them equal voice in the research. A sample size of 500 respondents was used, although 499 of the questionnaires were used in the analysis with one being spoilt. The study was conducted in Harare and Chinhoyi as follows:

- (i) 350 participants in Harare
- (ii) 150 participants in Chinhoyi

3.5 The Research Instrument

A questionnaire was used to collect data from the respondents (see appendix 1). Questionnaires work best with questions that can be interpreted the same way by all respondents, (Robson, 2002). Questionnaires can therefore be used for descriptive or explanatory research. Descriptive research, such as the one undertaken using attitude and opinion questionnaires will enable the researcher to identify and describe the variability in different phenomena (Leedy and Ormron, 2005).

The questionnaire was linked with the discussion guide for the structured interview (see appendix 2). The purpose of conducting semi-structured interview was to further verify data that had been collected using the questionnaires.

3.5.1 Pre-Testing and Validation

A pilot study was conducted on 10 people to test whether the questionnaire items measured what the researcher intended to measure and to measure if the questionnaire items were clear enough to elicit the correct responses. The results of the test showed the questionnaire's face validity: that is, whether the questionnaire appears to make sense (Saunders, 2003, Leedy and Ormrod, 2005).

3.5.2 Administration of the Questionnaire

Structured interviews were conducted. The researcher met the respondents face to face to gather her data. The interviewer had a defined schedule of questions to maintain consistence and direction. An interview guide was used (See appendix 2).

3.6 Definition of Terms

Users – Those who used Protector Plus in their last sexual act within the past 6 months Non-users – those who have either not used a condom in the past 6 months or who did used another brand not Protector Plus.

Sexually active consumers – consumers who have engaged in sexual activity before Casual relationships – short term relationships without any long-term or marriage intentions

3.7 Conclusion

The study had set out to determine what value respondents attached to colour, texture and flavour of condoms and ultimately what utilities the best condom should have to satisfy the target market and the price at which to distribute the condoms. Semi structured group interviews with further representative of 24 from target groups were conducted to clarify the content of some of the data.

A quantitative research employing hall testing approach was carried out. The sample consisted of 350 respondents from Harare and 150 respondents from Chinhoyi. Participants were exposed to different possible attributes and attribute combinations and had to make their preference rating. These ratings set stage for conjoint analysis.

Conjoint analysis produced estimates of the utilities or values respondents attached to product features this multi method approach enables triangulation to take place. It makes sense to use different methods to cancel out method effect. The results of the research conducted are outlined in chapter 4.

CHAPTER 4 Research Findings and Discussions

4 Introduction

In this chapter the response rates, and the results obtained from the study of 500 participants of which 250 were males and the remaining 250 were females are presented. It is also important to note that one participant spoiled their questionnaire hence the results of 499 was considered. This report details only those findings deemed to be important in satisfying the objectives as outlined in the proposal.

4.1 Awareness of Condom Brands

Respondents were asked to name all the brands of the condoms that they are aware of. This question measures the top-of-mind awareness of brands, which is closely related to the salience of the different brands. The results are shown in the table below.



FIGURE 4.1.1 Awareness of Condom Brands

• Whilst the awareness levels for Protector Plus were uniform across the sub samples, those for Durex were proportionately higher in Harare (48% than in Chinhoyi 28%).

This may be attributed to the wider distribution and retail merchandising of the Durex condoms in Harare retail outlets and night clubs compared to pharmacies and departmental stores only in Chinhoyi.

- A higher proportion of students (50%) were aware of Durex as compared to the other sub-samples, which averaged 42%. Similarly, respondents in Low Self Monitors (LSMs) 8+ (53%) had higher awareness levels of Durex as compared to respondents in Low Self Monitors (LSMs) 1-3 (24%), 4-5(41%) and 6-7 (47%)
- Proportionately more respondents in Harare (7%) were aware of Carex than those in Chinhoyi (2%)
- Protector Plus enjoys high awareness among non-users 89%.

Protector Plus had the highest top-of –mind awareness followed by Durex, which tied with the Blue/Clinic condom, then followed by Carex. Whereas awareness for Protector Plus was uniform across sub-samples, that of Durex increased in higher LSMs, students and Harare respondents. Similarly respondents in higher LSMs were more aware of Carex than respondents in lower LSMs.

4.2 Usage of Condom Brands

The respondents were asked to name all the condom brands that they had ever used. Protector Plus emerged as the most used brand having been used by 72% of the respondents followed by the Blue and clinic condoms (21%) and then Durex (18%) (Table 4.2.1).

After being asked which brand they mainly used, Protector Plus was the leading reported main brand by the respondents with 67% reporting that they mainly used Protector Plus, followed by Durex which was mainly used by 5% of the respondents and the clinic/Blue condom which was mainly used by 2% of the respondents.



FIGURE 4.2.1: Usage of Condom Brands

- Proportionately less students (60%) and females (63%) reported ever using Protector
 Plus compared to the overall sample (72%).
- Whilst usage of Durex was almost identical between respondents fro LSMs 4 to 9 (average 20%), it was evidently lower in respondents from LSMs 1-3.
- There was a large difference between respondents who had used the Clinic/Free condom (21%) and those who mainly used these Clinic/Free condoms 2%, which suggests a barrier against main usage. Similarly there was a large difference between respondents who had used Durex (18%) and those who mainly used Durex (5%), which also suggests a barrier against main usage.

4.2.1 Condom Usage Brand

Protector Plus had the highest usage percentage indicating the highest market penetration position of the respondents reporting to have ever used Protector Plus followed by Free/Clinic condoms and Durex. Protector Plus was significantly perceived as the main brand that respondents used.

There is a small percentage difference between respondents who reported occasionally used Protector Plus and those who mainly used Protector Plus. The suggestion is that most people who had first used Protector Plus continued using this brand as compared to Durex (used = 18%; mainly used = 5\%). These suggest a barrier against main usage. There is a large difference between respondents who were aware of Durex and the Free/Clinic brand (42%) and those who used them (18% and 21% respectively). This also suggests a barrier against trial. On average, each person suggested one brand of condoms out of those who used condoms suggesting a high level of brand loyalty.

4.3 Perceptions and Associations with Variant Attributes

There were no strong reactions to the proposed condom attributes (colour, flavour and texture) with each of the groups having mixed reactions to the idea of coloured, flavoured and textured condom.

Overall, most of the participants had a fairly positive response to the three condom attributes. It is important to note, however, that the perceptions and associations of the condom attributes individually tended to differ slightly from the responses given by participants after the combination of the attributes.

4.3.1 Colour Perceptions and Associations

The findings that were collected from the questionnaires were used discusses in the focus groups and in the semi structured interviews to analyse the perceptions of the target market. Across all the groups 88% of the participants generally expressed greater positive associations for lighter colours as they showed a desire for colours that would enable them to view the inner and outer fluids surrounding the condom.

In the focus groups conducted participants showed a strong dislike for the black-coloured condom that is associated with evil in the Zimbabwean culture and when probed they expressed that it was a colour which brought misfortunes and could not see the colour of the inner and outer fluids on the condom.

During the focus group discussions expressed concern at the condom material used comparably with the Protector Plus, which they felt, might cause some irritation or reactions, while in establishing spontaneous associations with condom attribute participants felt the colouring of condoms might result in children confusing condoms for balloons. Below are respondent's perceptions of each of the colours.

Red Coloured Condom

The red-coloured condom had more positive associations than negatives. However there was a concern across all groups that the red-coloured condom might conceal bloodstains from infected parts of the body.

Below are the key associations with the red-coloured condom that emerged from the questionnaire and the probing from the semi structured interviews:

- In the discussions, the red-coloured condom was associated with love, passion and romance as most participants associated the red colour with such attributes.
- It emerged that the red colour was also associated with special occasions like Valentine's Day by most of the user participants, who were in the semi structured interviews to consolidate data from questionnaires.
- 56% users associated the condom with being romantic, as they perceived the red colour to be romantic.

 From the focus group discussions it appeared that the participants had reservations for the red condom as they associated it with blood, which would make it difficult to notice blood stains.

Pink Coloured Condom

Similar to the red-coloured condom, the pink condom drew more positive sentiments than negatives.

- Of the 499 participants across all the groups 427 head counted associated the pink condom with condom females would prefer, as they perceived the pink to be feminine.
- Participants also perceived the pink condom to be eye catching, attractive and romantic.
- 13 participants from the semi structured interviews and 69 participants from the focus group discussions commented that the pink condom would be stimulating especially to females.
- The pink condom had negative comments similar to those of the red condom, i.e. it was perceived to resemble blood and it was therefore perceived to be difficult to distinguish between the condom colour and blood.

Lilac/Plain Coloured Condom

The colour lilac was used synonymously with the plain colour. The lilac-coloured condom was perceived as the plain-coloured condom (current Protector Plus) by almost all participants. On the overall, strong associations with the lilac-coloured condom emanated from the transparency of the colour as most participants reiterated the need for transparent condoms.

Below are other key associations with the lilac/plain-coloured condom:

- 98% participants commented that they were used to this colour as it is the one on the market and when they saw it they would immediately think of condoms.
- 2% of the participants, however, felt it was too plain and did not induce any excitement.

Green Coloured Condom

- The green-coloured condom was perceived as attractive and appealing.
- The colour green was associated with natural flowers and was interpreted as representing life as such they associated the use of a green condom with living longer.

Blue Coloured Condom

Overall, seven of the nine groups had more positive associations with the blue-coloured condom which they associated with purity than two of the groups who showed negative preference for the colour. When participants were probed on their perception of the blue coloured condom the following key associations emerged (see appendix 2, part 2).

- The blue colour was associated with a clear blue sky, which was interpreted as implying that with a blue condom the protection was clear and clean.
- Football fanatics among the participants (13%) associated this condom with the Dynamos football team (because Dynamos football team's colour is blue) and said they are likely to use a blue condom after the victory of a Dynamos game.
- Seven groups in the study perceived the blue condom to be of superior quality to the plain one as they associated blue with purity.

• On the negative side two of the nine groups commented that blue was a dull colour while some female participants expressed that blue was not transparent enough to enable them to view the colour of the condom contents.

Black Coloured Condom

Almost all the comments for the black condom were negative in the focus group discussions and confirmed in the semi structure with the 24 participants who were purposively selected. On the overall, 100% showed a strong dislike for the black-coloured condom.

Key associations with the black condom were as follows:

- The black colour was perceived to be associated with evil and bad things in the Zimbabwean culture and as such almost all participants perceived a black condom as perpetuating bad omen to the sexuality.
- Participants also associated the colour black with absorbing heat, which they said would render the condom weak resulting in the condom breaking.
- Participants also commented that the black colour was too dark to enable them to view the colour of the contents surrounding the condoms as well as the detection of defects on the condom.
- Female participants commented that with a black condom it would be difficult for some women to tell whether one had worn the condom or not.

Yellow Coloured Condom

- On the positive side, it was associated with being transparent.
- However all the nine groups' participants perceived the yellow condom to be thicker than all other condoms, less attractive and not appealing.

4.3.1.1 Overall Colour Preference

The most preferred colours ranked by number of appearance as the best three colours in most groups are:

- 1. Lilac/plain (N.B. participants perceived lilac and plain as the same colour)
- 2. Blue
- 3. Green

Respondents were asked to choose their preferred condom colour out of six possible colours. None/Plain colour was the most preferred having been selected by 34% of respondents, followed by 23% who opted for the blue colour. 16% chose the green colour, 15% yellow, 9% chose the pink colour while only 2% preferred the red colour. Figure 4.3.1.1 below shows the full results in detail:



FIGURE 4.3.1.1 Preferred Condom Colour

- Both male and female respondents similarly preferred the non/plain colour at 34% respectively.
- More females preferred the blue colour (20%) than their male counterparts (15%).
- 39% of respondents in Chinhoyi preferred the non/plain colour compared to 32% in Harare.

- Yellow colour was more favoured by males (17%), while only 10% of females preferred it.
- Pink coloured condoms were least preferred by respondents in the 16 24 age band (11%), while those in the 25-29-age band (6%).
- PP users (18%), preferred Green condoms than non-users (12%)

When frequencies were run, Non/plain was the most preferred condom colour, followed by Blue, Yellow, and Pink while Red was the least preferred condom colour across all sub samples. Both Protector Plus users and non-users equally preferred the non/plain colour condoms.

4.3.1.2 Preferred Condom Colour (Conjoint Analysis):

The data gathered for preferred condom colours was then further subjected to conjoint analysis, which is universally regarded as being more reliable in determining consumer preferences compared to normal frequencies.

| Attribute | Attribute level | Utility | Utility + Constant Constant=3.12 X10 |
|-----------|-----------------|---------|---|
| Colour | Red | -0.1665 | 29.54 |
| | Green | -0.3762 | 27.44 |
| | Pink | -0.2835 | 28.37 |
| | Yellow | 0.7347 | 38.55 |
| | Plain | 0.0915 | 32.12 |

TABLE 4.3.1.2: Preferred Condom Colour Conjoint Analysis

Respondents did not differ much on the value they placed between the different condom colours (table 4.3.1.2.).

However respondents placed a greater value on a yellow coloured condom (average utility value 38.55) closely followed by a plain coloured condom compared to the other entire condom colours tested above.

Whilst Plain colour was the most preferred colour by normal frequencies, conjoint analysis, which is more objective, found out yellow to be the most preferred colour. Non/plain came as the second preferred colour (under conjoint) highlighting it as a strong preference.

Others also ranked between positions one to three groups are Pink, Red and Yellow.

4.3.2 Taste Perceptions and Associations

Generally participants viewed the flavouring of condoms as positive and a concept that would ensure the presence of a good smell. Some participants commented that flavoured condoms would cover up the bad smells and leave them with confidence. Below are the perceptions of each flavour:

Lemon Flavoured Condom

On the overall across all the groups there were strong negative associations with the lemon flavour than positives.

• The participants in the nine groups associated the lemon condom with the sour taste of the lemon fruit. Some comments from participants:

"...Lemon kuvava (lemon is sour/bitter)..."

- Participants felt the lemon smell in the lemon condom was not inviting and also that the smell of the rubber was more pronounced than that of lemon in the lemon flavoured condom.
- 16 participants felt that it did not smell like the real lemon while others perceived it to produce a bad after sex smell.
- The lemon condom was also associated with sick people as participants comment that it is normal practice for people not feeling well to drink tea with lemon.

Strawberry Flavoured Condom

On being exposed to the strawberry flavoured condom 87% of the participants across all the groups showed strong positive reactions with some nodding in appreciation. Almost all the associations of a strawberry condom were positive.

Key associations with the strawberry flavour:

- The strawberry condom was perceived as romantic and pleasant smelling. Participants associated the strawberry fruit with romance and love.
- The smell on the strawberry condom was perceived as long lasting, covering/disguising bad smells.
- It emerged that the participants felt that the name strawberry was appealing.

Mint Flavoured Condom

Overall, all the nine groups in the focus group discussions and the two groups in the semi structured interviews concurred positive reactions to the mint flavour. The participants perceived the mint flavour as an appetiser that would make people crave for more and also appropriate for covering up bad smells.

- The mint flavour was associated more with getting rid of foul smells.
- 7 participants also associated the mint flavour with drawing air in, i.e freshening.
- Participants from the nine groups also commented that the mint flavour was pleasant and inviting.

Banana Flavoured Condom

Overall, there were no strong reactions towards the banana flavour with participants having mixed reactions to this flavour.

Some of the positive aspects about the banana flavour:

- Participants in the study liked the banana flavour because of the shape of the banana.
- Participants associated a banana-flavoured condom with healthy sex, as they perceived the banana fruit as one that is consumed by sick people in order to heal.
- participants associated the banana-flavoured condom with sweet sex as they perceived the banana fruit to be sweet.

Negative aspects about banana:

- The banana-flavoured condom was perceived as not appealing and too common as they said the banana was a common fruit. They also associated the banana with a fruit, which was mainly given to sick people, and as such they commented that using a banana flavoured condom would mean that you were not healthy as well.
- The banana smell was perceived as not strong enough to cover odours.

Plain Flavoured Condom

The non-flavoured condom was perceived as old fashioned and expressionless.

4.3.2.1 Overall Flavour Preference

The most preferred flavours ranked by number of appearance in the best three flavours in most groups are:

- 1. Strawberry
- 2. Mint
- 3. Banana

4.3.2.2 Preferred Condom Flavour

Respondents were asked to choose their most preferred condom flavour among three flavours; mint, strawberry, and banana. 37% preferred mint flavour and 34% opted for strawberry, while 29% preferred Banana. The results are illustrated graphically in figure 4.3.2.3 below:



Figure: 4.3.2.3: Preferred Condom Flavour

- Male respondents mainly preferred the mint flavour (39%) compared to their female counterparts 29%. Females preferred strawberry (42%) than males at 32%.
- Therefore, in terms of flavour preference females are much in favour of strawberry while males prefer the mint flavour.
- Respondents in the 25-29-age category (31%) preferred banana than their counterparts in the 16-24-age band (28%).

Using frequencies, a majority of respondents preferred mint flavoured condoms followed by strawberry while banana flavour was the least preferred condom flavour. Both Protector Plus users and non-users equally had the same condom flavour preference. Females mainly preferred strawberry, while males mainly preferred mint flavoured condoms.

4.4 Texture Perceptions and Associations

Across all the groups, participants placed emphasis on the ability of the condom to prevent the contraction of diseases rather than the variety of textures.

The majority of the participants expressed a desire for having "naked" sex but because of the presence of STIs and HIV they had to use condoms, and, as such they showed more concern on the condom thickness compared to the other texture variants (ribbed, dotted, plain).

Ribbed Textured Condom

Overall, of all the participants' males and females alike associated the ribbed condom with pain and discomfort. The participants had more negative than positive reactions to the ribbed condom.

- On the positive side; the ribbed-condom was perceived as inducing more friction.
- On the negative side, the ribbed condom was associated with causing discomfort.
- Participants also commented that the ribs might lead to excessive friction that might result in the condoms breaking.

Ultra Thin Textured Condom

Key associations of the participants of the condom:

• The ultra thin condom was perceived by participants as providing the next best thing to sex without a condom.

- However, of all the nine groups, participants had reservations to this texture, which they said was susceptible to breaking.
- Participants commented it was meant only for the married couples, who they said have very minimal risk to worry about in the event of the condom breaking.

Dotted Textured Condom

Similar to the ribbed, the dotted condom had strong negative associations with the groups' participants associating it with causing pain.

Key associations with the dotted condom:

- On the positive note, some participants felt the dots were good for the grip.
- Participants associated the dots like the ribs with possibly causing discomfort or pain.
- Participants felt the dots might lead to condom breakage.
- The male participants also expressed that some girls might be misled by the dots into thinking that the man had an infection.

Plain Textured Condom

Overall the plain textured condom was perceived as being strong.

The plain condom was associated with being strong and reliable.

4.4.1 Overall Texture preference

Despite the high number of negative associations with the ultra thin condom the most preferred texture ranked also by number of appearance in the best three in 9 groups was ultra thin. The texture ranking is shown below:

4 Ultra thin

- 5 Ribbed
- 6 Plain
- 7 Dotted had the least popularity among participants.

4.5 Importance and Popularity of Variant Attributes

Participants from all the groups perceived texture to be the most important attribute in the selection of a condom followed by flavour then colour.

Participants gave the following reasons for the importance of texture:

- Participants reiterated that the main reason why people use condoms is the need to protect themselves from diseases and as such one had to make sure that the condom was strong enough to serve its main purpose of protection before they could search for additives like flavour and colour.
- Participants stated that texture ensured that the condom was durable and strong.
- Participants' opinion on the importance of flavour and colour in a condom was also sought and in table 4.5.1 below are the reasons on the importance of flavour and colour in a condom.

| Attribute | Reasons |
|-----------|--|
| Flavour | Helps to cover up bad odours Presents a comfortable and pleasant atmosphere Provides a romantic atmosphere |
| Colour | Brings occasional moments to the sex, different occasions e.g. red for Valentine Required to match flavours |

Table 4.5.1 Importance of Colour and Flavour on Condom

Participants were then asked for their perceptions of the most expensive attribute between the three categories. 97% of the participants' perceived condom flavour to be the most expensive attribute to include in a condom. The main reasons given by participants for flavour being the most expensive was:

- The extraction of the flavour from the original fruit is what the participants perceived to be a costly process as well as its preservation prior to using it for flavouring the condom.
- The participants stated that flavours came from fruits and some of the fruits were seasonal as such they felt condoms with such flavours had to be made during those times when that fruit is in season.

24 participants in the semi structured interviews and the nine groups from the focus group discussions perceived texture to be the most expensive attribute in a condom and gave the following reason when probed (Appendix 2, part 4):

 These participants commented that the manufacture of condoms with a variety of textures required the use of new and expensive machinery as such would result in the production of expensive condoms.

4.6 Most Preferred Variant Combinations

Participants were asked to select condoms by making combinations of the attributes centred on flavour i.e. coming up with their favourite colour, flavour and texture combinations.

There were very little variances to the group preferences for colour combinations for each flavour group; however, there were wide differences in the preferred textures for each flavour group.

Overall, only the banana group had almost a universal colour because it is yellow.

Below are the preferred variant combinations for each flavour group together with the reasons for variant associations:

| Flavour | | Colour | | Texture |
|------------|------|--------|--------|------------|
| Strawberry | - | Red | - | Dotted |
| Strawberry | - | Red |) Ā | Ultra Thin |
| Strawberry | - | Pink | 10-51 | Ribbed |
| Strawberry | - | Pink | - | Dotted |
| Strawberry | 141) | Plain | - | Ultra thin |

TABLE 4.6.1 Strawberry Combinations

- The red and pink colours were chosen for the strawberry group as participants perceived them to be the colours of the strawberry fruit.
- Dotted was associated with the strawberry fruit because they perceived the skin of the strawberry fruit to be dotted while ultra thin was associated with making one close to having unprotected sex.

| Flavour | | Colour | | Texture |
|---------|--------------|-------------|---------------|------------|
| Mint | | Blue | G | Plain |
| Mint | - | Blue | 2 | Ultra Thin |
| Mint | - | Lilac/Plain | - | Dotted |
| Mint | (=) | Lilac/Plain | (11) | Ribbed |
| Mint | 12 | Lilac/Plain | 1 <u>1</u> 0 | Plain |
| Mint | - | Green | H | Plain |
| Mint | | Green | - | Ultra thin |

TABLE 4.6.2 Mint Combinations

- The blue colour was associated with the mint group because of the mint crystal sweets, which they said had a blue colour while some associated mint colour with green from the cough drop mint sweets, which they said were green in colour.
- There was, however, no reason for the texture associations.

| Flavour | Name (1997) | Colour | | Texture | |
|---------|-----------------|--------|-----|------------|--|
| Banana | 17 <u>1</u> 1 | Yellow | 120 | Ribbed | |
| Banana | 14 | Yellow | ÷. | Ultra Thin | |
| Banana | 87 | Yellow | - | Plain | |
| Banana | 8. 4 | Yellow | - | Dotted | |

TABLE 4.6.3 Banana Combinations

- Almost all the participants associated the banana group with the yellow colour from what they perceived as the colour of the banana fruit.
- The ultra thin and plain textures were associated with the banana fruit, which they said was smooth while felt the banana peels had some ribs on the sides.

| Flavour | | Colour | | Texture |
|---------|-----|-------------|----|------------|
| Lemon | - | Yellow | | Ribbed |
| Lemon | 270 | Yellow | .= | Ultra Thin |
| Lemon | - | Yellow | - | Dotted |
| Lemon | 100 | Green | | Ribbed |
| Lemon | - | Green | | Plain |
| Lemon | | Lilac/Plain | 5 | Dotted |

TABLE 4.6.4 Lemon Combinations

- Yellow and green were associated with the lemon group for what was perceived as the colours of the lemon fruit, the former for when the fruit is ripe while the latter was for when the fruit is yet to be ripe.
- The dotted texture was said to be appropriate for the lemon group as participants associated the lemon skin with being rough and dotted.
- Some participants associated the lemon flavour to inflict pain since they associated the lemon with being bitter and in order to reduce that pain they felt the lemon texture had to be plain or ultra thin.

| Flavour | | Colour | | Texture | |
|---------|---------------|-------------|----|---------|--|
| Plain | - | Plain/Lilac | 15 | Plain | |
| Plain | . | Plain/Lilac | - | Dotted | |

TABLE 4.6.5 Plain Combinations

There was however no clear reasons for the colour and texture selection for the plain group as participants expressed a desire for having at least a traditional substitute condom.

Attribute Importance

| Table 4.7.1: Attribute Imp | ortance |
|----------------------------|---------|
|----------------------------|---------|

| 71.1 |
|------|
| 28.9 |
| 100 |
| |

- The most important attribute in a condom was perceived as colour (71%) compared to flavour (28.9%).
- The average importance scores above (Table 4.8.1) reveal that on average, respondents perceived that the difference between a yellow coloured condom and a green coloured condom was more important than, with regard to flavour, the difference between a mint flavoured condom and banana flavoured condom.

Using conjoint analysis, although colour emerged as the most important condom attribute, it should be noted that plain was also considered as a colour option. Therefore, the importance of colour in this regard does not suggest changing from plain as a primary issue.

In fact, when respondents were asked for flavour preference, all of them had a particular flavour choice suggesting the importance of having flavour added to the condom.

4.7.2 Profile Preference

Respondents were asked to select their preferred condom colour and flavour. Banana flavoured/ Yellow coloured was highly rated at 72%, followed by mint flavoured/ Plain colour at 68%.

Mint flavoured/ Blue coloured and Strawberry flavoured/ Red coloured were rated at 63% and 61% respectively. Strawberry flavoured/ Pink coloured, Mint flavoured/ Green coloured and Plain Flavoured/ Plain coloured were all rated at 59%. The Table 4.7.3 illustrates these scores:



Table 4.7.3 Flavour/Colour Preference

- Females 36% said they would definitely choose Banana flavoured/ Yellow coloured condoms while 31% males said they would definitely choose this combination.
- Banana/Yellow coloured combination was highly rated in Chinhoyi 40%, while in Harare it was rated at 28%.

- Females (76%), rated Banana/yellow combination than their male counterparts (70%).
- Respondents in the 16-24-age band rated mint/Green at 27% than 24-29 who rated it at 22%.
- Female respondents (67%), rated strawberry/Pink combination than males who rated it at 57%.
- 36% of female respondents said they would definitely choose Banana/Yellow combination than 31% of males who opted for the same combination.
- Averages of 13% of respondents were not certain which condom flavour/colour combination they would choose.
- 71% of Protector Plus main users said they would choose Banana/Yellow combination, while 73% of non-Protector Plus users also opted for the same combination.
- When it came to Plain flavour/Plain colour, 60% of Protector Plus main users said they would choose this flavour/colour combination, while 57% of non-Protector Plus users chose the same combination.

| Profile | Average utility Score X10 Constant=3.12 |
|--|---|
| Strawberry flavoured and red coloured | 30.4 |
| Strawberry flavoured and pink coloured | 29.3 |
| Mint flavoured and blue coloured | 31.3 |
| Mint flavoured and plain coloured | 33.9 |
| Mint flavoured and green coloured | 29.2 |
| Banana flavoured and yellow coloured | 35.8 |
| Plain flavoured and plain coloured | 29.4 |
| | |

TABLE 4.7.4 Utility for Different Profiles

- The utility scores for the profiles (table 4.8.4) show that respondents are highly likely to choose a banana flavoured and yellow coloured condom (utility score 35.8) followed by a mint flavoured and plain coloured condom (utility score 33.9).
- This result is also consistent with that of running ordinary SPSS frequencies, were the banana flavoured and yellow coloured condom attained the highest rating (72%) for likelihood of being chosen followed by the mint flavoured and plain coloured condom (68%).
- However respondents showed a marginal difference in the value they placed on the seven condom (table 4.8.4 above) profiles i.e. +/- 4 utility score differences among the condom profiles.

NB. Banana flavoured/Yellow coloured condoms profile was the most preferred combination using normal frequencies and was validated by conjoint analysis. There was a significant difference between Banana flavoured/yellow coloured condoms and Plain flavoured/ Plain coloured condoms (35.8 and 29.4 respectively) which shows a definite preference of Banana/Yellow combination over the current Plain/Plain condom.

4.8 Attitudes Towards the New Concept

All the groups interviewed, the participants showed a positive attitude towards the new concept. The key reasons for appreciating the new concept were:

- The new concept provided choices/variety to the current Protector Plus.
- Participants also liked the new concept, as they perceived it to introduce a comfortable environment during sex because of the various flavours.
- Participants in the groups also perceived the new concept to induce excitement and adventure in the purchase of condoms.

Negative attitudes towards the new pack were as a result of the following reasons:

- Both male and female participants in all the groups raised concern for some of the textures, i.e ribbed and dotted which they felt might cause pain or discomfort. 8 individuals were sceptical of the colouring agents to be used in the condom, which they felt might cause some irritation or reaction.
- It also emerged that participants felt that the use of colour might confuse children who might end up mistaking condoms for balloons.

4.9 Acceptability and Price

Almost all the participants expressed that the new variants would be acceptable as they provide choice in colour, texture and flavour and also that it introduced fun and excitement in sex as it allowed association of sex with different occasions and activities. Some participants commented that they could associate the colour variants with the different colours for soccer teams and occasions like Valentine.

The retail price range participants perceived as affordable and reasonable and which would make the product also appear superior would be between ZW\$1000 and ZW\$3000. However, most participants stated that the new variant was superior to Protector Plus and had to be levied a premium that was slightly above that for Protector Plus to ensure that superiority.

Some participants commented that the sale of the new variant at a price below that for the current Protector Plus would result in them being sceptical about its strength, quality and reliability. Participants felt the inclusion of flavour and colour came at an additional cost, which to them would not be logical if it resulted in a cheaper condom.

| Price range ZW\$ | Proportion of respondents (%) |
|---------------------|-------------------------------|
| 200-500 | 23 |
| 500-1000 | 34 |
| 1000-1500 | 21 |
| 1500-2000 | 9 |
| 2000-3000 | 5 |
| 3000-4000 | 2 |
| 4000-5000 | 4 |
| Above5000 | 2 |

The expected price ranges are indicated in the table below:

TABLE 4.9.1 Expected Price Range

The highest proportion of the respondents (34%) expected the price range of the proposed flavoured and coloured Protector Plus variant to be between ZW\$500 and ZW\$1000. 31% of unemployed respondents expected the price range to be between ZW\$1000 and ZW\$1500. A majority 38% non-Protector Plus users expected the price to be between ZW\$500 and ZW\$1000, while 28% of Protector Plus users expected it to be in the same price range. 27% of respondents in the 25-29 age band expected the price range to be between ZW\$200 and ZW\$500, while 22% in the 16-24 age band also expected the same price margin. Only 2% of respondents across sub samples expected the price to be above ZW\$500.

5 Conclusion

After conducting the research using conjoint analysis the results have shown that there can be a difference of results when normal frequencies are run and when conjoint analysis is applied. An example is, when frequencies were run for the colour choices the most preferred colour was the plain colour. After the data was subjected to conjoint analysis, which is regarded as being more reliable in determining consumer preference, compared to normal frequencies respondents placed greater value on yellow flavoured condom. Chapter 5 will discuss further on more examples of findings like these in conjunction with previous findings and known information.

Chapter 5 Discussion of Results

5.1 Summary of Major Findings and Conclusions

The purpose of this study has been the establishment of attributes for the new Protector Plus variant in terms of colour, flavour and texture. The study went on further to look at the establishment of the mix of Protector Plus variant attributes (colour and flavour) that are best aligned with the preferences of the target market.

The primary target for the new variant was perceived to be the young generation aged sixteen and twenty- nine (16 - 29) and is currently using Protector Plus. These were perceived as the adventurous, trendy and fashionable type who would switch to the new variant, which they also perceived as modern and trendy.

Protector Plus had the highest top-of-mind awareness followed by Durex, which tied with the blue/clinic condom, then followed by Carex. Awareness of Carex was uniform across sub samples, that of Durex increased in higher LSMs, students and Harare respondents. Similarly, respondents in higher LSMs were more aware of Carex than respondents in lower LSMs.

Protector Plus had the highest usage percentage indicating the highest market penetration position of the respondents reporting to have ever used Protector Plus followed by the blue/free/clinic condom and Durex. Protector Plus was significantly perceived as the main brand that respondents used.
There is a small percentage difference between respondents who reported ever using Protector Plus and those who mainly use Protector Plus, suggesting that most people who had ever tried Protector Plus mainly used Protector Plus as compared to Durex (ever used = 18%, mainly used 5%).

These suggest a barrier against main usage. There is a large difference between respondents who were aware of Durex and the blue/clinic brand (42%) and those who used them (18% and 21% respectively). This also suggests a barrier against trial and in light of the blue/clinic brand that is given out free; the result proves the social marketing theory that consumers are suspicious of the quality of free goods. On average each person used one brand of condoms out of those who used condoms suggesting a high level of loyalty. Overall, most of the participants had a fairly positive response to the three condom attributes.

Across all the groups, the majority of the participants generally expressed greater positive associations for lighter colours as they showed a desire for colours that would enable them to view the inner and outer fluids surrounding the condom. On the overall across all groups, participants showed great dissatisfaction with the black coloured condom.

Some participants were sceptical of the colouring material used for the condoms, which they felt might cause some irritation or reactions, while some felt the colouring of condoms might confuse children who might mistake them for balloons. On the whole, the most preferred colours were lilac/plain, green and blue. Lilac and the plain colour were perceived as the same colour.

Generally participants viewed the flavouring of condoms as positive and a concept that would ensure the presence of a good smell and pleasant atmosphere. The most preferred flavours in order of preference were strawberry, mint and then followed by banana.

Across all the groups participants placed emphasis on the ability of the condom to prevent the contraction of diseases rather than the variety of textures. Most participants indicated that they only use condoms because of the presence of STIs and HIV and as such they showed more concern on the condom thickness compared to the other texture variants (ribbed, dotted, plain). Overall, the most preferred textures were (in order of preference) ultra thin, ribbed and plain.

All the participants perceived texture to be the most important attribute in the selection of a condom mainly because the intrinsic value of a condom lay in its ability to prevent the contraction of diseases. However, participants felt the most expensive attribute to include in the condom between the three (flavour, texture, colour) was flavour mainly because they perceived the extraction of the flavours from the fruits as well as its subsequent preservation prior to its inclusion in the condom as a costly process.

There were very little variances to the group preferences for colour combinations for each flavour group. There were, however, wide differences in the preferred textures for each flavour group. Across all the groups, only the banana group had almost a universal colour i.e. yellow. Strawberry was associated with the red and pink colours; mint with blue and to limited extent green and lilac colours, while lemon was mainly associated with the green and yellow colours.

98% participants perceived the new variant to be similar to Protector Plus mainly because of the purpose of disease prevention, while some felt that the quality and appearance especially of the plain condom was highly similar to Protector Plus, while they perceived the new variant to offer a wider variety, choice and style in the form of colours, flavours and texture.

Participants from almost all the groups, users and non-users alike, perceived the new variant to be superior to the current Protector Plus. They commented that the inclusion of flavour, colour and texture incurred an additional cost and they expected the cost to lie between ZW\$1000 and ZW\$1500. Participants stated that they would purchase the new variant within this price range and in times when they could not afford they would settle for the current, plain Protector Plus. Participants however stated that the pricing of the new variant with a price lower than the current Protector Plus (perceived as ZW\$500 to ZW\$1000) would result in them doubting the variant's product quality and strength.

Lilac/plain was the most preferred condom colour, followed by blue, yellow; pink while red was the least preferred condom colour across all sub samples. Both Protector Plus users and non-users equally preferred the non/plain colour condoms.

Whilst the plain colour was the most preferred colour by normal frequencies, conjoint analysis, which is more objective, found out yellow to be the most preferred colour. Plain came as the second preferred colour (under conjoint) highlighting it as a strong preference.

Using conjoint analysis although colour emerged as the most important condom attribute, it should be noted that plain was also considered as a colour option.

Therefore, the importance of colour in this regard does not suggest changing from plain as a primary issue.

The majority of respondents preferred Mint flavoured condoms followed by Strawberry while Banana flavour was the least preferred condom flavour. Both Protector Plus users and nonusers equally had the same condom flavour preference. Females mainly preferred Strawberry, whilst males mainly preferred the Mint flavoured condoms. In fact, when respondents were asked for flavour preference, all of them had a particular flavour choice suggesting the importance of having flavour added to the condom.

Banana/yellow coloured condoms were highly rated followed by Mint/Plain condoms, while Strawberry/Red coloured condoms were rated in third position. Banana flavoured/yellow coloured condoms profile was the most preferred combination using normal frequencies and was validated by conjoint analysis.

There was a significant difference between Banana flavoured/Yellow coloured condoms and Plain flavoured/Plain coloured condoms (35.8 and 29.4 respectively) which shows a definite preference of Banana/Yellow combination over the current Plain/Plain condom. Expected price range for a pack of three condoms was \$500 - \$1000 for the plain condoms, and \$2500 - \$3000 for the coloured/flavoured condoms.

5.2 Conclusion

The overall objective of this study was to establish the attributes for the new Protector Plus (PP) variant in terms of colour, flavour and texture. The attitudes and perceptions towards the proposed Protector Plus variant was found to be positive with almost all groups perceiving new variant to be superior to current Protector Plus.

The preference among colours, textures and flavours separately were established to be the colour plain/lilac, ultra thin texture and mint for flavour.

The new colour/texture/flavour variants were compared to the plain Protector Plus. Results show that participants both non users and users preferred the variant condoms which they said they would purchase at a higher price than the current Protector Plus. A lower price than Protector Plus would leave them doubting the variant's product quality.

Participants said they would purchase the Protector Plus variant condoms at times when they could afford them and settle for the current Protector Plus when they could not afford them. In light of these findings Chapter 6 is going to outline recommendations for the introduction of Protector Plus variants.

Chapter 6

Recommendations and Conclusion

6. Introduction

The research has established the attitudes and perceptions towards the proposed Protector Plus variants and established preferences among colour, textures and flavours separately. Consumers have demonstrated a willingness to pay a premium price for the new variants. This demonstrates that there is, theoretically, a market for the Protector Plus variant. Cues for the brand positioning have been established as above the current Protector Plus brand. The importance of each attribute (i.e. the amount it has on the buyer's decision) has been established. However, there are some data that are not well rounded and it may be worthwhile to look further into the areas of the study recommended below.

6.2 Recommendations for Future Research

This study on its own does not provide the all round marketing information that is needed to justify launching a product. There is need to find out the expected distribution figures of the variants in order to justify the administration cost, promotion and distribution costs.

The Protector Plus variants that were used in the study were samples designed for the research. The researcher recommends that a product test be conducted using the target market to find out if they will perform to expectation of the market before launching them full scale to the entire market. If the products do not perform well under the controlled environment they may be pulled out quickly with limited damage. If the variants are successful then the distribution maybe rolled out to the entire market.

The current study was conducted in two towns in Mashonaland, that can be looked at as a homogenous population and sample. Despite the towns being two with one large city and one small town there are various different set ups of towns and settlements in Zimbabwe. A truly representative sample would contain respondents from various regions and urban settlements. In the current study there was already a marked trend whereby the Harare residence and students were more knowledgeable about Durex and Carex condoms. They may be some areas where Protector Plus is not the leading brand and these studies have not been able to show that result. A sample from towns of different set ups and sizes may show different perceptions.

6.3 Specific Recommendations for the Protector Plus Variant Study

Respondents in the study reported that they used condoms for disease prevention and would not otherwise use them. There is a need to find out whether the introduction of variants will introduce a sense of fun and excitement to use condoms or if the motive remains the same.

Studies to examine whether the introduction of variants is going to expand the market i.e. encourage correct and consistent use of condoms and generate new condom users as opposed to current users changing over from one type of condom to the next.

Respondents reported that they would purchase the variants when they have the money and revert back to the Protector Plus current when they have less money. There is need to investigate whether this will not be movement of the same users from one variety of PP to another. The purpose of introducing variants is to expand distribution. If the current users just use the variant some times and the current sometimes the number of units sold may remain constant.

6.4 Conclusion

Armed with this information the CSMP may now utilise it to launch Protector Plus variants. A decision has been made as to how many variants to launch into the market. The researcher recommends that PSI launch the three variants that were rated highly namely banana/yellow, mint/plain and strawberry red condoms. The information provided by the study is adequate to support the needs of the consumer for variety of condoms but this will not necessarily increase sales or change people's condom usage behaviour. Other behaviour change mechanisms that are beyond the scope of this study will need to be employed to achieve behaviour change. However, after launching these variants there is a constant need to conduct marketing research to monitor the market response to the new products.

BIBLIOGRAPHY

AIDSCAP. (1997) Making Prevention Work - Global Lessons from AIDS control and prevention (AIDSCAP) project 1991-1997. Unpublished paper. Family Health International.

Amass L, Bickel W.K, Higgins ST, Budney AJ, Foerg FE (.1993). The taking of condoms in a drug abuse treatment clinic: the effects of location and posters. Am J Public Health. 83:1466–1468.

Bird P.(2003) Market Research, 1st Edition, Hodder & Stoughton

Centers for Disease Control and Prevention, HIV/AIDS Prevention Training Bulletin, January 28, 1993.

Consumer Council of Zimbabwe (2005). Annual Report

Coyle SL (1998). Women's drug use and HIV risk: Findings from NIDA's Cooperative agreement for Community-Based Outreach/Intervention Research Program. Women & Health.; 27:1–23.

Cohen DA, Parley TA, Bedimo-Etame JR, Scribner R, Ward W, Kendall C, Rice J (1999). **Implementation of condom social marketing in Louisiana**, **1993 to 1996**. Am J Public Health.;89:204–208.

Finger WR (1996). Barrier methods require consistent use. Network 16(3):6-9.

Garside R. Condom shape: A neglected factor influencing use and acceptability? UK family Planning Research Network. Int J STD AIDS. 1999;10:785–790. doi: 10.1258/0956462991913556.

Gershaw (1991). A Line on Life 1/28/91

Grady WR, Tanfer K.(1994). Condom breakage and slippage among men in the United States. Fam Plann Perspect; 26:107-12.

Hatcher RA, Hughes MS (1988). The truth about condoms. SIECUS Report; 17:1-9

Jere G. (1998) Condom distribution through lift-off points. Int Conf AIDS.;12:613.

Kirby D, Brenner ND, Brown NL, Peterfreund N, Hillard P, Harris R (1999). The impact of condom distribution in Seattle schools on sexual behavior and condom use. Am J Public Health. 89:182–187.

Kotler P, Zaltman G (1971). Social **marketing: an approach to planned social change**. Journal of Marketing, 35: 3-12.

Leedy PD and Ormrod JE (2005). **Practical Research: Planning and Design** (8th Ed). New Jersey, Merrill Prentice Hall.

Lefebvre RC, Flora JA (1988). Social marketing and public health intervention. Health Education Quarterly, 15(3): 299-315.

Linberg L, Sonenstein F, KU L et al (1997). Young men's experience with condom breakage. Fam Plann Perspect; 29:128-31.

Linberg L, Sonenstein F, KU L et al (1997). Young men's experience with condom breakage. Fam Plann Perspect; 29:128-31.

Ling JC, Franklin BAK, Lindsteadt JF and Gearion SAN (1992). Social marketing: its place in public health. Annual Review of Public Health, 13: 341-362.

Manoff RK (1985). Social marketing: new imperative for public health. Praeger.

MacFadyen L, Stead M and Hastings G (1999). A Synopsis of Social Marketing

Nelson A, Bernstein GS, Frezieres R, et al (1997). Study of the efficacy, acceptability and safety of a non-latex (polyurethane) male condom - final report, NIH contract NO1-HD-1-3109. Unpublished paper. National Institutes of Health.

Nelson A, Frezieres R, Walsh T, et al (1996). Controlled, randomized evaluation of a commercially available polyurethane and latex condom (Avanti versus Ramses Sensitol) - final report, NIH contract NO1-HD-1-3109. Unpublished paper. National Institutes of Health.

Richters J, Gerofi J, Donovan B (1995). Why do condoms break or slip off in use?: an exploratory study. Int J STD AIDS; 6:11-18.

Richters J, Donovan B, Gerofi J, et al (1988). Low condom breakage rate in commercial sex (letter). Lancet; 24:1488.

Rugpao S, Beyrer C, Toanabutra S, et al (1997). **Multiple condom use and decreased** condom breakage and slippage in Thailand. J of Acquired Immune Def Syndr and Hum Retrovirol; 14:169-73.

Saunders M, Lewis P and Thornhill A (2003). Research Methods for Business Studies students. 3rd Edition. Prentice Hall.

Spruyt A, Steiner M.J, Joanis C, et al (1998). Identifying condom users at risk of breakage and slippage: three international sites. Am J Public Health (in press).

Steiner M, Piedrahita C, Glover L, et al (1993). Can condom users likely to experience condom failure be identified? Fam Plann Perspect; 25:220-26.

PSI/Zimbabwe Research Department (2003). Awareness, Perception and Usage Study (Project "Vista"). Unpublished Marketing Research. Condom Social Marketing Project.

PSI/Zimbabwe Research Department (1997) . Knowledge Attitudes and Practices Survey. Unpublished Marketing Research. Condom Social Marketing Project.

Trussell J, Warner DL, Hatcher RA (1992). Condom slippage and breakage rates. Fam Plann Perspect, 24:20-3.

Weller SC (1993). A meta-analysis of condom effectiveness in reducing sexually transmitted HIV. Soc Sci Med Jun; 36(12):1635-44

West C. (1999). Marketing Research. 1st Edition. Macmillan

WHO (2001). Annual Report

INTERNET REFERENCES

(2000). http://www.aids-india.org/condom Accessed

- (2004). http:// www.azwestern.edu/psy/dgershaw/lol/codom.use.htm Accessed
- Bradshaw S. 2003. www.guardian.co.uk/aids/story Accessed

Condoms Express. April 25, 2001. http://www.condomsexpress.com

(2006). http://www.fnewsmagazine.com Accessed

- (2006) www.learnmarketing.net Accessed
- (2002). http://www.populationaction.org/resources/publications/condomscount Accessed
- (2003) <u>www.powermarketing.co.uk/site/pages/sectors_r_hall.asp</u> Accessed
- (2007) http://www.psi.org/resources/pubs/what_is_sm.html Accessed

www.resourcemr.com/research_services/quantitative/hall_tests.html Accessed 05/01/2004

www.textlife.org/probe. Probe Ministries, 1999. Church and Abstinence. Accessed 27/09/2003

http://www.usaid.gov/our-work/global-health/aids Accessed 05/04/2004

www.unfpa.org/HIV UNFPA. 2004. AIDS Epidemic Update. Accessed 23/07/2006

www.unaids.org/HIV UNAIDS 2004. Annual Report Accessed 06/12/2005

www.aegis.com/news Wanyeki .L.M. Church in Kenyaburns Condoms Accessed 09/02/1996

http://www.who.inl/inf-new/aidsz.htm Accessed 11/09/2006

www.unaids.org/epi/2005/doc/EPIupdates2005_html_en/epi05_05_en.htm Accessed 19/06/2005

APPENDICES APPENDEX 1

QUESTIONNAIRE

SECTION A: INTRODUCTION

INTRODUCTION: Good morning/afternoon. My name is Prudence Kusema, I am an MBA, Strategic Marketing student with the University of KwaZulu-Natal. I am conducting research for my dissertation as part of my qualification. I am carrying out a survey on sexual products particularly condoms. All information and views are treated with the strictest of confidence. Your individual opinions will not be disclosed to anyone but will be grouped together with other responses and analysed in aggregate form.

COMPLETE THIS SECTION WHEN THE INTERVIEW IS FINISHED.

INTERVIEWER: Explain to the respondent that their name and phone number are to allow the Researcher to verify that the information was properly obtained.

| Respondent's Name: | | | |
|--------------------|--------------------|-------------------------|------|
| Address: | | and the suitable set to | |
| Area | 0 11 11 | 2000 100 100 100 100 | |
| Phone # Work: | 3 - 1912 - 17 | S | |
| Home: | | | |

For the purposes of this survey, put yourself in the situation that your were shopping for some condoms.

This survey will probably seem repetitive. We are going to show you many different condom scenarios. We'll change the mix of features each time, so pay close attention. We need to ask you a lot of questions to understand how you think about subtle differences in condom features.

Are you ready?

INTERVIEWER ALLOWS THE RESPONDENT TO INTERACT WITH THE VARIOUS TYPES OF CONDOM FLAVOURS ENSURING THAT THE RESPONDENT IS RELAXED.

- Q1a. Thinking of the types of condom brands you are aware of. Which types of brands can you recall? DO NOT PROBE. [MULTIPLE MENTIONS POSSIBLE]
- Q1b. Looking at the following condoms, which ones have you ever used? [MULTIPLE MENTIONS POSSIBLE]

Q1c. Which one of the following condoms do you mainly use?

| Brand | Q1a | Q1b | Q1c | 1 |
|------------------------------|-------|-------|-----|---|
| Protector Plus (PP) | Q1a_1 | Q1b_1 | 1 | 1 |
| Durex | _2 | _2 | 2 | 1 |
| Carex | _3 | _3 | 3 | |
| Kenzo | _4 | _4 | 4 | |
| Blue condoms | _5 | _5 | 5 | - |
| Clinic free ones | _6 | _6 | 6 | |
| Other (Specify) | _7 | _7 | 7 | Ţ |
| Don't know/Refused/Can't say | _8 | _8 | 8 | |

Q2. Imagine if we were to have coloured condoms, which of the following colours would you prefer on a condom?

| Colour | CODE |
|-----------------|------|
| Blue | 1 |
| Red | 2 |
| Yellow | 3 |
| Green | 4 |
| Pink | 5 |
| None/Plain | 6 |
| Other (specify) | 7 |

Q3. If you were to choose between three flavoured condoms, i.e MINT, BANANA & STRAWBERRY. Which one would you choose?

| Condom type | code |
|-------------|------|
| Mint | |
| Strawberry | 2 |
| Banana | 3 |
| None | 4 |

Q4. How likely would you be in choosing the following condom?

| Profile | Definitely would not choose | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|-------------------------------------|-----------------------------------|----------------------|-----------|---------------|-------------------------------|
| Strawberry flavoured & red coloured | 1 | 2 | 3 | 4 | 5 |

Q5. How likely would you be in choosing the following condom?

| Profile | Definitely would not choose | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|--------------------------------------|--------------------------------|----------------------|-----------|------------------|-------------------------------|
| Strawberry flavoured & pink coloured | 1 | 2 | 3 | 4 | 5 |

Q6. How likely would you be in choosing the following condom?

| Profile | Definitely would not choose | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|--------------------------------|-----------------------------------|----------------------|-----------|------------------|----------------------------|
| Mint flavoured & blue coloured | 1 | 2 | 3 | 4 | 5 |

Q7. How likely would you be in choosing the following condom?

| Profile | Definitely would not choose | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|---------------------------------|-----------------------------------|----------------------|-----------|------------------|----------------------------|
| Mint flavoured & plain coloured | 1 | 2 | 3 | 4 | 5 |

Q8. How likely would you be in choosing the following condom?

| Profile | Definitely would not choose | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|---------------------------------|-----------------------------------|----------------------|-----------|------------------|----------------------------|
| Mint flavoured & green coloured | 1 | 2 | 3 | 4 | 5 |

Q9. How likely would you be in choosing the following condom?

| Profile | Definitely would not | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|------------------------------------|-------------------------|----------------------|-----------|------------------|----------------------------|
| Banana flavoured & yellow coloured | 1 | 2 | 3 | 4 | 5 |

Q10. How likely would you be in choosing the following condom?

| Profile | Definitely would not | Likely not choose | Uncertain | Likely choose | Definitely would choose |
|----------------------------------|-------------------------|----------------------|-----------|------------------|----------------------------|
| Plain flavoured & plain coloured | 1 | 2 | 3 | 4 | 5 |

Q9. Thinking of your pocket, which one of the following price ranges would you expect that a pack of three of this new flavoured and coloured condom to be costing? [SHOWCARD]

| Price (ZW\$) 000 thousands | code |
|----------------------------|------|
| 10 - 20 | /1 |
| 20 - 50 | /2 |
| 50 - 100 | /3 |
| 100 - 150 | /4 |
| 150 - 200 | /5 |
| 200 - 250 | /6 |
| 250 - 350 | /7 |
| Above 350 | /8 |

DEMOGRAPHICS

Finally I would like to ask you a few personal questions for statistical purposes so that we can gain insight on lifestyles of shoppers. I want to reassure you that the information you are giving us is highly confidential and will be amalgamated with other responses and used only for statistical purposes.

D1. Now a few questions about your household where you live everyday for the past six months. Which of these items are in your household – they should be live, in working order or being utilised. Please do not include items, which you may own elsewhere.

| Item | in Household | Code |
|------|--|-------|
| 1 | Refrigerator | D1_1 |
| 2 | Electric stove with oven | D1_2 |
| 3 | House owned by household | D1_3 |
| 4 | Colour TV | D1_4 |
| 5 | Washing machine/dishwasher/tumble dryer | D1_5 |
| 6 | Mains electricity | D1_6 |
| 19 | Have telephone | D1_7 |
| 8 | Personal computer | D1_8 |
| 9 | Have a car | D1_9 |
| 10 | Plough | D1_10 |
| 11 | Blair toilet | D1_11 |
| 12 | Bought durable items on credit | D1_12 |
| 13 | Cold water piped into house | D1_13 |
| 14 | Microwave oven | D1_14 |
| 15 | Video recorder | D1_15 |
| 16 | Vacuum cleaner/floor polisher | D1_16 |
| 17 | House of traditional materials | D1_17 |
| 18 | Hot water from geyser/solar heater | D1_18 |
| 19 | Satellite dish | D1_19 |
| 20 | Flush toilet in house | D1_20 |
| 21 | Unpiped water from borehole/protected well | D1_21 |
| 22 | Water to pipe outside house | D1_22 |
| | Refused to answer | D1_99 |

D2. And finally, a few questions about you. What is your marital status?

| Marital status | Code |
|----------------------------|------|
| Single | D2/1 |
| Married | 12 |
| Widowed/Divorced/Separated | /3 |
| Refused | 19 |

D3. SHOWCARD QD3 Which of these statements best describes your working life?

| Employment | Code |
|-----------------------------|------|
| Full time formal employment | D3/1 |
| Part-time formal | /2 |
| Self-employment | 13 |
| Informal employment | /4 |
| Housewife | /5 |
| Student | /6 |
| Retired | 17 |
| Looking for work | /8 |
| Unemployed | /9 |
| Other: specify | /10 |
| Refused | /99 |

D4. What is the highest level of education that you have attained?

| Education | Code |
|---|------|
| No schooling | D4/1 |
| Some primary school | /2 |
| Completed primary school | /3 |
| Form 2/ZJC | /4 |
| Form 4/ O level | /5 |
| Form 6/ A level | /6 |
| Artisan or technical certificate/ diploma | 17 |
| University degree | /8 |
| Other: Specify | /9 |
| Refused | /99 |

D5. Under which of the following age groups do you fall? CAN VERIFY AGE BY ASKING DATE OF BIRTH

| Age | Code |
|-------------------------|------|
| 16-24 | D5/1 |
| 25-29 | /2 |
| Don't know / refused | /9 |

- D6. Sex: BY OBSERVATION Male D6/1 Female /2
- D7 Race: BY OBSERVATION

| Black | D7/ 1 |
|-------|----------|
| White | 12 |
| Other | /3 |

| D8. | Site | |
|-----|--------|------|
| | Harare | D8/1 |

APPENDEX 2

INTERVIEW GUIDE

| Part I | |
|-------------------------|--|
| Objective | Introduction and Warm up 8 mins |
| Questioning Approach | Prudence Kusema & the focus group idea: - Prudence Kusema is an MBA student specialising in strategic marketing and has obtained permission from the PSI/Zimbabwe Research Department that specializes in finding out what people think about their various products and services. One method of doing this is the use of Focus group discussions. This is when individuals from different backgrounds and areas like you and me come together and sit like we are now and discuss on a particular topic. The basic idea being to understand your views, feelings and thoughts on the subject so that we can advise manufacturers and suppliers of goods/services to make goods that satisfy your needs better. |
| | Inform participants of recording and monitoring Because the discussion is for a short while, I will not be able to remember |
| | everything by heart so we will be recording it on tape (show Dictaphone), |
| | also as back up tape for transcription purposes we will be recording it on |
| | the big radio tape using the mike above. As you all know action speaks |
| | louder than words, there is need to record those non-verbal expressions |
| | that you make as you talk and stress points thus the use of the video |
| | camera above us. This camera is solely for my report writing and |
| | reference and will not be screened on TV or any public place. Finally |
| | monitoring the equipment and the proceeding is someone behind the one- |
| | way mirror; the person's function is just to ensure everything is moving on |
| | fine. |
| | Ensure that respondents are relaxed |
| | Please note there are no 'right' or 'wrong' answers, it is how you feel, what you think and what you as an individual want, feel free to discuss and disagree, objectively though. Encourage respondents to share information and participate in the group |
| | Begin by introducing yourself and allow respondents to follow suit Respondents to briefly introduce themselves, outlining their occupations, hobbies and interests. |

| • | MODER | ATOR | FIXES | NA | ME T | AGS. | MANAC | GE THE | TIME |
|---|--------|-------|---------|------|------|------|--------|--------|------|
| | SPENT | HERE | WHIL | ST | ALSO | D EN | SURING | THAT | THE |
| | PARTIC | IPANT | S ARE S | SETI | LED | | | | |

| Part 2 | |
|-------------------------|---|
| Objective | To establish spontaneous associations with condom attributes |
| Questioning Approach | MODERATOR SHOULD ALLOW THE RESPONDENTS TO OBSERVE EACH CHARACTERISTIC FOR EXAMPLE UNDER RED CONDOMS THEY SHOULD SHOW THEM A RED CONDOM – FOR A CONDOM WHICH SMELLS LIKE BANANA, THE MODERATORS SHOULD ALLOW THE RESPONDENTS TO SMELL THE BANANA CONDOMS. |
| | We are going to consider different attributes that can be incorporated in a condom and I would like you to tell me your thoughts and feelings about the attribute in relation to condoms? |
| | COLOURS |
| | USE THE FOLLOWING COLOURS ONE AT A TIME (GREEN; LILAC; RED; BLACK; BLUE; PINK; YELLOW; PLAIN) |
| | Now looking at colours of condoms What do you think about a condom?(e.g. blue- SHOWS A BLUE CONDOM) (ATFTER GOING THOUGH ALL THE COLOURS) Which one is your favourite colour for a condom? Then which one? LIST UP TO THREE. |
| | FLAVOUR |
| | USE THE FOLLOWING FLAVOURS ONE AT A TIME: (MINT, LEMON, STRAWBERRY, BANANA, PLAIN) |
| | Now thinking about the flavours or scents of different condoms What do you think about a condom which smells like(e.g banana - TAKES OUT A BANANA CONDOM FOR ALL RESPONDENTS TO SMELL) (ATFTER GOING THOUGH ALL THE FLAVOURS) Which one is your favourite flavour for a condom? Then which one? LIST UP TO THREE. |
| | TEXTURE |
| | USE THE FOLLOWING TEXTURES ONE AT A TIME (PLAIN, RIBBED, DOTTED) |
| | Now thinking about the textures or the surface feeling of condoms (EXPLAIN TEXTURE TO RESPONDENT) What do you think about a condom which is(e.g. ribbed -TAKES OUT A RIBBED CONDOM AND SHOWS RESPONDENTS) (ATFTER GOING THOUGH ALL THE TEXTURES) Which one is your favourite texture for a condom? Then which one? LIST UP TO THREE |

| Objective | To establish the importance of each attribute in a condom |
|-------------|--|
| Questioning | We have been discussing flavours, colours and textures of condoms, now we |
| Арргоасн | would like to know which one is the most important attribute in a condom. |
| | Which of these attributes is the most important attribute in a condom? (Is it flavour, texture or colour?) MODERATOR CONDUCTS HEAD COUNT Can you tell me more about why you think is the most important attribute? Those who mentioned (MENTION THE OTHER REMAINING ATTRIBUTES), can you tell me why you think is the most important attribute? |
| Part 4 | |
| Objective | To establish perceived effect of attribute variant on popularity and price |
| Questioning | Now we would like to imagine that there were three types of condoms: |
| Approach | (a) Those with a variety of colours |
| 0 | (b) Those with a variety of flavoure |
| | (c) Those with a variety of havours |
| | • Looking at these three types of condoms which one would be the most |
| | popular amongst your triends? |
| | • Looking at these three types of condoms which one do you think would be the most expensive type? Why? |
| | be the most expensive type? why? |
| Part 5 | |
| Objective | FLAVOUR GROUPS-To establish associations of condom flavours with |
| | other condom attributes so as to establish those attributes that are coherent |
| Questioning | MODERATOR TAKES OUT CARDS LABELED WITH THE ELAVOURS (IF |
| Approach | POSSIBLE EACH CARD WILL SMELL LIKE THE FLAVOURS (IF POSSIBLE EACH CARD WILL SMELL LIKE THE FLAVOUR THAT IT REPRESENTS) AND PLACES THEM ON THE TABLE AND REQUESTS RESPONDENTS TO FORM GROUPS AROUND THE FLAVOURS SUCH THAT IN EACH FLAVOUR GROUP THERE IS ONE TEXTURE ATTRIBUTE AND ONE COLOUR ATTRIBUTE. MODERATOR ALSO PUTS CARDS LABELED WITH TEXTURE AND THE COLOUR. |
| | Now I would like us to form groups around these flavours. As you can see our flavours are Banana, Mint, Plain, Lemon and Strawberry. I want you to form groups around each flavour such that each flavour has got one colour and one texture using these colours and textures that are shown on the cards. You can form the groups based on you own criteria of what colour and texture attributes you relate the flavour to. |
| | Now lets form the groups and remember each flavour can only have one group. |
| | MODERATOR ALLOWS THE RESPONDENTS TO DISCUSS AND FORM THE GROUPS. |

| | General associations | | | |
|-------------------------|--|--|--|--|
| | MODERATOR LOOKS AT ONE GROUP AT A TIMEWhat can you tell me about the(e.g. Banana) group | | | |
| | Why have you placed these attributes in the same group with (e.g. Banana) | | | |
| Part 6 | | | | |
| Objective | FLAVOUR GROUPS-To establish associations of condom flavours with other condom attributes so as to establish those attributes that are coherent (related). To determine associations with each flavour group. | | | |
| Questioning Approach | <u>User Type</u> | | | |
| | Looking at each of the groups What type of people would you expect to use each these groups – | | | |
| | What type of people would use the(e.g. Banana Group) condom? Why? REPEAT EXERCISE FOR ALL GROUPS | | | |
| | Personality associations | | | |
| | Now let us imagine that each of theses groups represented different people, what would you tell me about each of the people? | | | |
| | If were a person what kind of a person would s/he be? | | | |
| | ENSURE THAT THE RESPONDENTS DO MOST OF THE TALKING IN DESCRIBING THE PERSON REPRESENTED BY EACH GROUP. JUST PROBE FOR EACH OF THE FOLLOWING ASPECTS. | | | |
| | Would s/he be male or female | | | |
| | What would be his/her occupation | | | |
| | What would be his or her personality | | | |
| | What would s/he do during his/her free time | | | |
| | REPEAT THE EXERCISE FOR THE FOUR FLAVOUR GROUPS AND ALSO PROBE FOR THE DIFFERENCES IN THE PERSONNALITIES | | | |
| Part 7 | | | | |
| Objective | ATTITUDES TOWARDS CONCEPT-To determine respondent attitudes towards the variant concept | | | |
| Questioning Approach | Now looking at this concept of introducing condoms with different flavours, textures and colours, what do you specifically like about it? | | | |
| | What do you dislike about it? | | | |
| | | | | |

| Part 8 | |
|-------------------------|--|
| Objective | To establish perceived target market and likely reactions |
| Questioning Approach | Perceived target Users |
| | What type of people do you particularly think will like this new concept? Why? |
| | So which condom do these people currently use? |
| | So why would they be moving from? (current condom) |
| | OK now you say that these people will like the product - do you think these people will definitely purchase this product or they won't purchase it? Why? (PROBE FULLY) |
| | IF PRICE IS MENTIONED AS A BARRIER ASK: |
| | If priced at \$4000 for a pack of three will they buy it? IF NO ASK: |
| | How about if priced at \$3000 for a pack of three will they buy it? IF NO ASK: |
| | How about if priced at \$15 for a pack of three will people buy it? |

| Part 9 | |
|-------------------------|---|
| Objective | To establish perceptions of variant vis a vis PP |
| Questioning Approach | In what way do you think the variant will be different from Protector Plus? |
| | In what way do you think it will be similar? Do you think those people who currently use Protector Plus will use this condom or they will continue to use Protector Plus? Why? (PROBE FULLY) |

| Part 10 | |
|-------------------------|--|
| Objective | To establish perceived community acceptance |
| Questioning Approach | Do you think this condom will be acceptable to the Zimbabwean community? PROBE FULLY |

Thank respondents and hand them their incentives

APPENDIX 3

ETHICAL CLEARANCE





RESEARCH OFFICE (GOVAN MBEKI CENTRE) WESTVILLE CAMPUS TELEPHONE NO.: 031 - 2603587 EMAIL: ximbap@ukzn.ac.za

7 MARCH 2007

MS. P KUSEMA (201512084) GRADUATE SCHOOL OF BUSINESS

Dear Ms Kusema

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0789/06M

I wish to confirm that ethical clearance has been granted for the following project.

"Protector plus condoms variant study"

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

Yours faithfully

MS. PHUMELELE XIMBA

cc Supervisor (Khadija Kharsany) co Christel Haddon