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Article

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MARKETING | RESEARCH ARTICLE

The perceived risk and the high involvement product purchase: Location-based advertisements using fearful and sensual appeals as risk reduction strategy in condom purchases

Ivy E.D. Schultz^{1*}, Michelle H. Kovacs¹ and Dirk P. Janssen¹

Abstract: The goal of this research was to investigate the perceived risk of purchasing condoms and the risk-reducing effects of location-based advertisements. For the research, a quantitative approach was used. A questionnaire was distributed to 238 participants, using the Internet and physical distribution. This study found that 66% of the sample perceived social risk during the purchase of condoms. Of this percentage, 39% stated that embarrassment has stopped them from purchasing the product. Location-based advertisements were perceived negative, however also perceived informative by almost half of the sample. This study implies that advertisements have a positive effect on the perceived risk since the majority of the sample stated that their perceived purchase embarrassment was reduced after seeing the sensual (65%) and fearful (59%) advertisement.

Subjects: Social Sciences; Communication Studies; Mass Communication; Risk Communication; Visual Communication; Writing & Composition; Communication Research Methods

Keywords: consumer behavior; risk reduction; perceived risk; embarrassment; location-based advertising

ABOUT THE AUTHORS

The topic “perceived risk and the high involvement product purchase: Location-based advertisements using fearful and sensual appeals as risk reduction strategy in condom purchases” suits all authors. Michelle Kovacs has done earlier research in Consumer Behavior, Dirk Janssen has done research in methods and statistics and psychophysiology and computer games, and Ivy Schultz has studied International Media and Entertainment management. The topic of the research started as thesis, connecting to all fields of expertise. The background of Michelle Kovacs combined with other research of Dirk Janssen concerning location-based mobile advertisements in store led to this graduation topic of Ivy Schultz, which eventually led to writing this paper.

PUBLIC INTEREST STATEMENT

Using condoms is the best way to prevent the spread of AIDS and other STD's; however, buying condoms is often seen as an uncomfortable activity. Therefore, this paper investigated if people felt risk during the purchase of condoms and if this risk could be reduced by using location-based advertisements. It was found that 66% of the 238 participants perceived risk during the purchase of condoms and that of this percentage 39% stated that they did not buy condoms because they felt embarrassed. Location-based mobile advertising was perceived negative; however, the advertisements themselves had a positive effect. The embarrassment during the purchase was reduced after seeing the sensual ad (for 65% of the respondents) and the fearful ad (for 59% of the respondents). Understanding these effects can improve future advertisements to reduce risk, stimulate the condom purchase, and reduce the spread of AIDS, STD's, and unwanted pregnancies.

1. Introduction

Although the public opinion on sexual activity has shifted dramatically over the last 50 years and has substantially reduced the taboo status of sex, buying condoms is still a very uncomfortable activity for many adolescents and young adults (Dahl, Gorn, & Weinberg, 1998). The inconsistent use of condoms among sexually active persons is one of the major factors of the spread of sexual transmitted diseases (STDs) (Dahl, Gorn, & Weinberg, 1999; Shacham, Nelson, Schulte, Bloomfield, & Murphy, 2016). Therefore, health organizations promote the use of latex condoms as the best way to control and prevent the spread of AIDS and other STD's among sexually active persons (Brackett, 2004). Many adolescents report that they are willing to use condoms, however often fail to use them in practice. The research of van Empelen and Kok (2008) on Dutch adolescents indicated that the majority of the sexually active persons had never bought (78%) or carried (59%) condoms. Intended condom use is positively related to an increased motivation for purchasing condoms, however was unrelated to the actual buying (van Empelen & Kok, 2008). For this reason, it is of great importance to public health that the access to purchase and the use of condoms is stimulated (Brady et al., 2015; Scott-Sheldon, Glasford, Marsh, & Lust, 2006).

1.1. Embarrassment and perceived risk

Acquiring condoms is a necessary precursor for using. The study of Bell (2009) indicated that embarrassment is a key risk factor in young people's sexual behavior. Embarrassment is associated with fearful and anxious feelings, and with situations that are perceived to be threatening (Folkman & Lazarus, 1988a; Wilson & Ickes, 2015).

According to Goffman (1959), embarrassment is seen to arise from our perception that our performance has been harmed. Bell (2009) states that the desired presentation of self can create barriers to both the acquisition and use of condoms, as self-presentation emphasizes the avoidance of potentially embarrassing situations which might be a threat for people's reputation and/or status. This in itself leads back to the dramaturgical theory of Goffman (1959) that life is a theater and people perform in it. Situations in which people revealed imperfection in the eyes of others, or situations in which people were forced to reveal something private in public, were seen as embarrassing. Both of these aspects fit the condom purchase situation (Dahl et al., 1998).

Moore, Dahl, Gorn, and Weinberg (2006) states that 61% of the respondents indicated feeling embarrassment in at least one of the five stages of consistent condom use, being: purchasing, carrying, storing, using, and disposing. The purchasing stage is most embarrassing, with 55% of males and 69% of females experiencing embarrassment. When viewing the condom purchases of women, it is found that females who are purchasing condoms express more concern about the purchase and apply more coping strategies than men (Brackett, 2004; Welch Cline & McKenzie, 1994). However, Helweg-Larson and Collins (1994) and Dahl, Manchanda, and Argo (2001) indicate that consumers who were familiar with such a purchase were shown to be unaffected by their social audience.

1.2. Risk reduction

The purchase of a product can fail in multiple ways, by which the consumer gains some type of perceived risk. Jacoby and Kaplan (as cited in Chaudhuri, 2000) classified five components of perceived risk, subdivided in rational risk and emotional risk. Rational risk consists of financial risk (financial loss or hidden costs), performance risk (the product fails to meet the expectations), and physical risk (safety and health of the individual). Emotional risk includes the psychological risk (the purchase is inconsistent with the self-image of the individual) and the social risk (less favorable perceptions by others) (Chang & Wu, 2012; Chaudhuri, 2000; Kumar & Dange, 2014).

Reflecting these risks upon the problem of embarrassment, concluded can be that embarrassment falls under the social risk. In order to prevent or minimize the perceived risk, the buyer could engage in risk reducers (Yilmaz, 2014). Folkman and Lazarus (1988b) and Roselius (1971) have grouped risk reduction strategies (also referred as coping strategies) into four categories:

- Reduce risk by either decreasing the probability that the purchase will fail, or by reducing the severity of real or imagined loss suffered if the purchase does fail (planful problem-solving);
- Shift from one type of perceived loss to another for which the consumer has more tolerance (social support);
- Postpone the purchase, in which case the consumer would be shifting from one general risk type to another (escape avoidance); and
- Make the purchase and absorb the unresolved risk (emotion-focused).

According to Roselius (1971), when buyers perceive risk they switch to one of four strategy categories of risk reduction. In the research of Moore et al. (2006), the most commonly used risk reduction strategies for the purchase of condoms are the emotion-focused and planful problem-solving.

1.3. Purchase of condoms

The research of Moore et al. (2006) indicated that 90% of individuals usually purchased condoms in retail stores. In contrast, only 0.4% purchased condoms on the Internet. This could be explained by the fact that relatively 80% of the Internet users are cautious toward online shopping because of the inability to examine the product in person, uncertainty about the post-purchase services, insecurity about the transaction and personal information privacy (Chang & Wu, 2012).

Although embarrassment is slightly reduced when buying online because of anonymity, the majority prefers to purchase condoms in a retail environment. To stimulate the purchase of condoms, advertisements should address the multiple stages such as purchasing and carrying, which underlie the goal of the condom use to reduce the risk (van Empelen & Kok, 2008).

1.4. Advertisements as risk reduction

Moore et al. (2006) stated that the embarrassment related to the condom use is relatively low. This may be a consequence of the historical focus of public health mass campaigns on encouraging the condom use (Keller & Brown, 2002). Moore et al. (2006) stated that in the future purchase embarrassment may also be reduced through campaigns that focus on normalizing condom purchase behavior. Scott-Sheldon et al. (2006) suggest that increasing positive associations with condoms is one way to increase condom purchases. Study by Byzalov and Shachar (2004) suggests that exposure to advertisements increases the likeliness that the consumer will buy the advertised product since advertisements lower the perceived risk with the content they provide. According to them, this is referred to as the risk-reduction role of advertising. The risk-reduction model of Byzalov and Shachar (2004, p. 283) suggests that high-involvement product ads should target consumers (a) who are more sensitive to risk, and (b) who are more involved.

1.5. Location-based advertising

Marketers have found direct marketing to be a profitable approach to reach the audience (Nowak & Phelps, 1995). One technique for more personalized advertisements is location-based advertising, which targets people on certain locations and is often used with mobile advertising: ads which are received on the mobile phone (Tsang, Ho, & Liang, 2004). Location-based mobile advertisements can be divided into two categories: pull-based and push-based (Xu, Oh, & Teo, 2009). The former is used when consumers request information on a one-time basis, whereas push-based location-based advertisements are sent to users based on the tracking of the device's location (Bruner & Kumar, 2007; Xu et al., 2009).

The attitude of consumers toward the push-based approach is often perceived negative. People feel it is an invasion of privacy and regard the location-based advertisements as spam, since marketers can track consumers (Tsang et al., 2004). Research of Tsang et al. (2004) indicated that the average response score on overall attitude of mobile advertisements was negative. However, the more entertaining the advertisement is the better the attitude toward the advertisements, which the research of Xu et al. (2009) confirms as they indicated that attitude was a significant predictor to purchase and use.

1.6. Sensual and fearful appeals in advertisements

A way of presenting advertisements is by using sensual appeals. Sensual appeals—also known as sexual appeals—can be defined as persuasive appeals in marketing context and have been increasingly used in Western countries (Latour & Henthorne, 1994; Reichert, Heckler, & Jackson, 2001). They have become one of the most popular and effective tactics to use in advertising (Liu, Li, & Cheng, 2006). Using sexual appeals in advertisement can serve multiple roles such as grabbing attention, enhance persuasion, bolster brand image, augmented recognition, and increasing receivers' interest in processing the ad (Reichert et al., 2001). Sexual appeals have a strong influence in advertisements, since people viewing sexual appeals indicated stronger purchase intentions than people who viewed non-sexual material (Severn, Belch, & Belch, 1990).

Another way to draw attention is to emphasize the health- and fear-based aspects. Fear appeals in advertisements can increase the interest and persuasiveness of an advertisement (Higbee, 1969; Hyman & Tansey, 1990; King & Reid, 1990). Cohen and Rosenberg state that fear appeals in advertisements are used because it is believed that some form of arousal is necessary for individual behavior change to occur (as cited in Henthorne, Latour, & Natarajan, 1993). Many fear appeals in advertisements act as warning of negative consequences of not using the product, which marketers try to inform and persuade the customer about (Snipes, LaTour, & Bliss, 1999). Hyman and Tansey (1990) state that people are more likely to remember ads that include fear in their advertisements.

Advertisements claim to have a large influence on the consumer's purchase behavior (Byzalov & Shachar, 2004; Higbee, 1969; Hyman & Tansey, 1990; Keller & Brown, 2002; King & Reid, 1990; Mitchell & McGoldrick, 1996; Moore et al., 2006; Pechman & Catlin, 2015; Reichert et al., 2001; Scott-Sheldon et al., 2006; Xu et al., 2009). Therefore, it was expected that:

- (H1) By normalizing the condom purchase, location-based advertisements are a risk-reducing strategy for embarrassment.
- (H2) The target group perceives embarrassment during the acquisition.
- (H3) The target copes with the embarrassment of purchasing condoms by using emotion-focused and playful problem-solving coping strategies.
- (H4) The attitude toward location-based mobile advertisements as a risk reduction strategy is negative.
- (H5) Considering fearful and sensual appeals in advertisements, sensual appeals are perceived as a better risk reduction strategy.

2. Method

For the sample of the study, eligible respondents were Dutch between the age of 17 and 29 years and bought condoms at least once the past year. The surveyed sample (103 females, 133 males and two declined to disclose) was recruited at the NHTV Breda University of Applied Sciences and online over 4 weeks. The survey was presented as a web-based self-completion questionnaire in which respondents were informed about the purpose of the study beforehand.

The questionnaire started with the general questions block, which determined if respondents were eligible for the target group. The following blocks of questions were only shown if the participant fitted the requested target group.

- Questions about the participant's condom purchase related to their perceived embarrassment.
- Questions about the attitude toward receiving location-based advertisement on the mobile phone.
- Questions about the fearful advertisement and the sensual advertisement. These advertisements were first shown to the participant, so the judgment would not be hypothetical.
- Questions about the participant's sexual behavior.

The questions could be rated on a five- or seven-point Likert scale. Internal reliability was assured by using Cronbach's Alpha and construct validity was achieved by using questions that were presented in related studies. Questions that were not derived from related questionnaires used for other articles were based upon extensive literature and the Marketing Book of Scales (Bruner, 2009).

3. Results

This item presents the results considering the condom purchase, the influence of risk during the purchase of condoms, embarrassment during the condom purchase, coping with embarrassment, location-based mobile advertising as risk reduction strategy and fearful and sensual appeals in advertisements as risk reduction strategy.

3.1. Condom purchase

The majority of the sample (80%) acquires condoms in retail shops (drugstores, supermarkets or convenience stores), of which 69% acquires them in drugstores. These results are equivalent with the findings of Moore et al. (2006). Of all respondents, 17% uses the Internet to purchase condoms while vending machines (0.8%) and places where condoms are free (0.4%) are barely used to acquire them. It is evident that women tend to buy condoms more often in drugstores (79%) than men (61%), while men purchase them more often via the Internet (20%) than women (13%). However, these results were not significant ($p = 0.120934$, $p > 0.05$) and can thus be due to chance.

3.2. The influence of risk during the purchase of condoms

One question measured if the sample perceived social risk. The outcomes are displayed in Figure 1.

The bar chart demonstrates that out of 238 respondents the majority (66%) stated to perceive some form of social risk. The results suggest that social risk is perceived more by women (81%) than men (56%). To confirm these outcomes, Phi and Cramers V were conducted which indicated a positive relation of $\varphi_c = 0.267$ between these two variables. Furthermore, the chi-square test implied that there is a statistically significant difference between the different genders and the perceived social risk ($p = 0.000227$, $p < 0.05$). Therefore, it can be assumed that gender has an influence on the perceived social risk.

As outlined earlier, the sample perceived social risk during the purchase of condoms. Of the respondents who stated to perceive social risk (66%), 39% confirms that embarrassment has ever stopped them from purchasing condoms. After running Phi and Cramers V, it can be implied that the correlation is positive yet not very strong ($\varphi_c = 0.381$). However, the difference was found to be statistically significant ($p = 3.5087E-8$, $p < 0.05$) which implies that social risk is an influencing factor for customers' buying behavior of condoms.

Figure 1. Social risk perceived during the condom purchase.

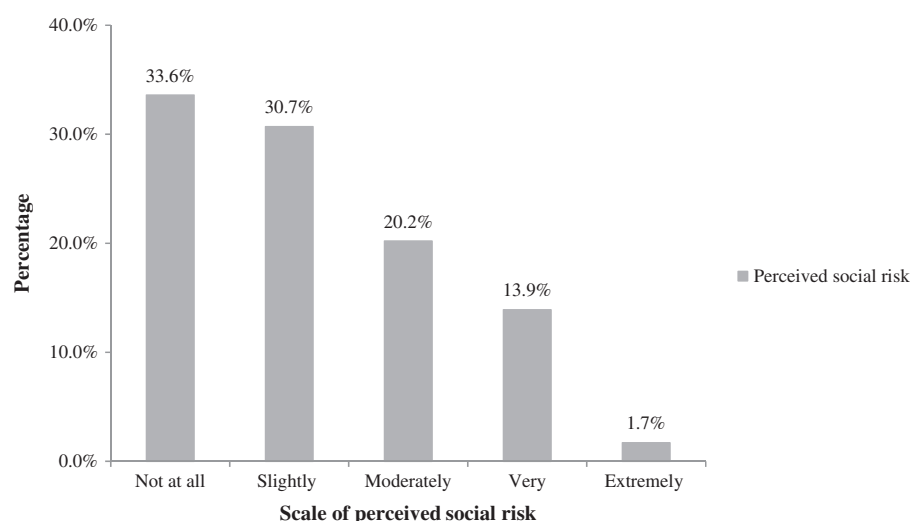


Table 1. Percentage of respondents perceiving embarrassment when purchasing condoms

Statement given	Respondents perceiving purchase embarrassment (N)	% of respondents perceiving purchase embarrassment
Someone I know seeing me at the condom display	132	56
Someone I know seeing me at the cash register	114	48
Anybody seeing me at the condom display	73	31
Anybody seeing me at the cash register	61	26
Standing in front of the cashier	74	31
Not knowing the type of condom to buy	56	24
Not knowing the brand of condom to buy	37	16

To determine which scenario was most highly perceived during the condom purchase, one question was asked about which degree particular situations were perceived as embarrassing. The situations presented were related to “someone I know seeing me,” “anybody seeing me,” and “the purchase of condoms itself.” Table 1 presents an overview of the different statements and the response rate. Results indicate that the social risk is highly perceived with the sample perceiving “someone I know seeing me” and “anybody seeing me” over “the purchase of condoms itself.”

To verify that social risk and the statements that include “someone I know seeing me” are correlated, Spearman’s rho correlation was used. The results indicate that social risk and “someone I know seeing me” were related, with a correlation of 0.659 (for “someone I know seeing me at the condom display” and social risk) and 0.615 (for “someone I know seeing me at the cash register” and social risk). These correlations imply that there is a relation between the variables social risk and “someone I know seeing me.”

Spearman’s rho was conducted to confirm if social risk and embarrassment were related. This resulted in a high correlation of $\varphi_c = 0.810$ and thus implies that social risk and embarrassment are strongly related as was outlined in the literature review (Boshoff, 2002).

In conclusion, social risk is perceived by the majority of the sample (66%). Therefore, the null hypothesis of sub question one “Dutch men and women between 17 and 29 do not perceive risks when purchasing condoms” can be rejected.

3.3. Embarrassment during the condom purchase

Results indicated that 56% of the respondents do perceive embarrassment when buying condoms, of which women are more embarrassed (70%) than men (45%). This difference was found to be statistically significant since the result of the chi-square was $p = 0.000142$ ($p < 0.05$) and the value for Phi and Cramers V was $\varphi_c = 0.248$. These results indicate that there is a positive association between purchase embarrassment and gender. This suggests that the younger the age of the sample, the more respondents perceive embarrassment during their purchase. However, the chi-square was not statistically significant which means that this difference can be found due to chance.

Since the majority (56%) perceives purchase embarrassment during the purchase of condoms, the null hypothesis of sub question two “the target group does not feel any embarrassment at all when purchasing condoms” can be rejected.

3.4. Coping with embarrassment

To reduce embarrassment during the purchase, people can make use of coping strategies. Based upon the classical article from Roselius (1971) the coping strategies are planful problem solving, emotion-focused, escape avoidance, and social support strategies. Our results imply that planful problem-solving strategies were used most frequently (63%). “I spend as little time in the aisle as possible” was used by 65% of the respondents 57% agreed to use “I buy other items with condoms”. Secondly, emotion-focused coping strategies are preferred by the participants (60%). The coping strategies that were related to social support have gained third place (40%) and escape avoidance is ranked last and thus used least (30%).

To confirm that the strategies belonging to the same category were correlated, Spearman’s rho was used. The results indicated that the emotion-focused coping strategies had the highest and therefore the strongest correlation ($\rho = 0.665$). The second best correlation was achieved by the planful problem-solving ($\rho = 0.454$). However, the other strategies implied less strong correlations of $\rho = 0.366$ (social support) and $\rho = 0.363$ (escape avoidance). Evident is that the highest correlations resulted from the emotion focused and planful problem-solving coping strategies. Comparing the different coping strategies to gender, the results indicated that more women than men are using coping strategies when purchasing condoms.

In conclusion, the results indicated that women use more coping strategies than men. Planful problem-solving and emotion focused were the most used coping strategies by the sample. Therefore, the null hypothesis of sub question three “the target does not cope with the embarrassment of purchasing condoms by coping strategies for risk reduction” can be rejected.

3.5. Location-based mobile advertising as risk reduction strategy

The attitude toward location-based mobile advertising was tested by questions related to four different categories: irritation, entertainment, credibility, and informativeness. Together these categories measured the overall attitude toward location-based mobile advertisements. We found that 96% of the respondents consider location-based mobile advertising as irritating. This outcome is supported by the negative result of the category entertainment (26%). Credibility was not perceived positive either, with the majority of the sample (67%) disagreeing with finding location-based mobile advertisements credible. However, almost half of the respondents (47%) considered location-based advertisements to be informative. The highest and strongest correlation results from the category entertainment ($\rho = 0.753$) compared with informativeness ($\rho = 0.654$), irritation ($\rho = 0.648$), and credibility ($\rho = 0.558$).

For almost half of the sample (47%) location-based mobile advertisements were considered to be informative. However, it can be concluded that location-based mobile advertisements in overall are perceived negative by the sample, with the most unfavorable responses for irritation and entertainment. Therefore, the null hypothesis of sub question four that states “the attitude of the target towards location-based mobile advertisements as a risk reduction strategy is positive” can be rejected.

3.6. Fearful and sensual appeals in advertisements as risk reduction strategy

Questions related to “the likability of the ad” were asked to gain insight in how the participants perceived the advertisements presented. The likability of the ad was assessed by six questions which asked the participant to rate the degree of agreement for the categories positive impression, something for me, interest, credibility, exaggerate, and attractiveness. Results of the fearful ad implicated that 60% ($N = 143$) of the sample stated to like the fearful ad. The sensual advertisement retrieved higher scores, of all respondents 77% ($N = 184$) stated to like the sensual advertisement.

To measure the impact the different ads had on the respondents who stated to perceive embarrassment during the purchase of condoms, the results of the variable “purchase embarrassment” were compared with the question that stated “this ad made me feel less embarrassed to purchase the product.”

As previously discussed, 56% of the respondents perceived purchase embarrassment during the condom purchase. Of those respondents, 55% stated to agree with the statement “this ad made me feel less embarrassed of purchasing the product” after having seen the fearful advertisement. However, the results from Spearman’s Rho indicated only a weak positive correlation ($\rho = 0.141$).

The sensual ad displayed better results with 68% of the respondents feeling less embarrassed to purchase the product after seeing the sensual advertisement. However, Spearman’s rho correlation was positive but weak ($\rho = 0.156$). Regarding both advertisements presented and the risk reduction for the whole sample, the fearful ad reduces the perceived risk for 59% of all respondents, while the sensual advertisement reduces perceived embarrassment for 65% of the sample.

It can be concluded that the sensual advertisement is more likely to reduce the perceived embarrassment during the condom purchase than the fearful advertisement. Therefore, the null hypothesis of sub question five “considering fearful and sensual appeals in advertisements, none is perceived as a better risk reduction strategy” can be rejected.

3.7. Location-based advertisements as risk reduction strategy by normalization

Respondents who stated that the ad made them feel less embarrassed about the purchase of condoms were presented with the question why the fearful and/or sensual advertisements reduced the perceived risk. After seeing the fearful ad, 86 respondents felt less embarrassed about the purchase (36%) of which 92% stated to agree that the advertisement “made them realize condoms are normal to purchase and use.”

For the sensual advertisement, 103 participants (43%) felt less embarrassed about the purchase after seeing the ad. The main reason was because the ad “made them realize condoms are normal to purchase and use” (96%). Figure 2 presents an overview of the fearful and the sensual statements in percentages.

It can be concluded that in this study the most likely reason for the sensual and fearful advertisement to reduce the perceived embarrassment during the purchase of condoms is to put the emphasis on the normalization of condoms (Moore et al., 2006). Therefore, the null hypothesis of the research question “location-based advertisements are not a risk-reducing strategy for embarrassment by normalizing the purchase of condoms” can be rejected.

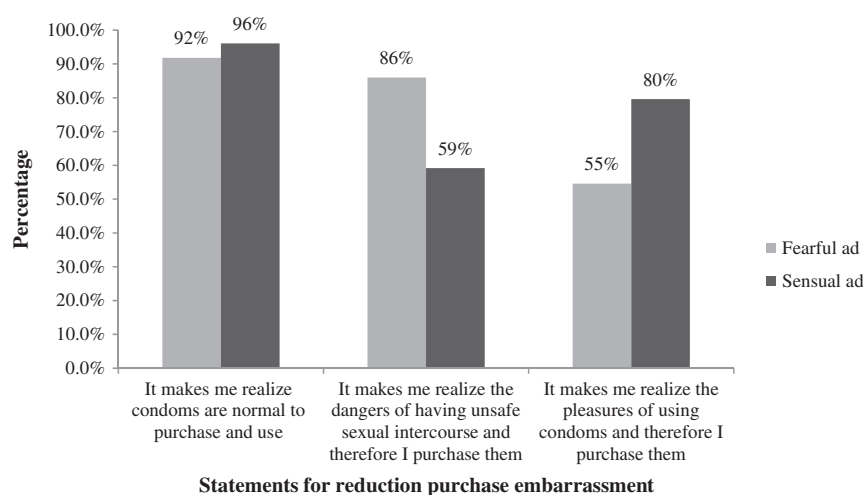
4. Discussion and conclusion

The results indicated that the majority of the sample acquires condoms via drugstores (69%) and via the Internet (17%). People are not able to have (un)favorable perceptions about the buyer and the purchase; therefore, the social risk does not exist in Internet buying. However, since the majority is still physically purchasing them it is necessary to understand their behavior in order for advertisements to reduce risk.

In our study, we found that most participants perceive social risk (66%) and embarrassment (56%) during the purchase of condoms. It was previously found that social risk is perceived more strongly by women (Moore et al., 2006; Welch Cline & McKenzie, 1994) and our findings confirm that with 81% of women and 56% of men stating to perceive social risk. It is therefore coherent that more women than men make use of coping strategies. According Byzalov and Shachar (2004), the target of ads should be women, since they are more sensitive to risk.

We found that location-based mobile advertising was in overall perceived negative. Nonetheless, we could imply that the ad itself is informative which people are willing to receive (47%). Therefore, location-based mobile advertisements might be perceived differently when send by a different medium or when the consumer gives consent to send advertisements (permission based location-based mobile advertising).

Figure 2. Statements that could be rated by the respondents why the fearful and sensual advertisement were reducing perceived purchase embarrassment.



However, the sensual advertisement reduced the perceived embarrassment for a larger part of the sample (65%) than the fearful advertisement (59%). This can be due to the positivity of the message, since the fearful ad highlights the negative consequences of having unprotected sexual intercourse. As stated in the literature review, purchase embarrassment might be reduced through campaigns which focus on normalizing condom purchase behavior. Our results are equivalent since both advertisements reduce risk because they made the respondent realize condoms are normal to purchase and use. For a long time, negative associations were linked to sex; it was seen as dirty and speaking about the topic was embarrassing and impolite (Dahl, Gorn, & Weinberg, 1998). Therefore, people might still feel uncomfortable about these topics and need to be reminded that there is no need to be embarrassed.

As suggestions for further studies could be highlighted:

- The importance of replication of this study with other populations/cultures since this paper has a limited generalizability.
- Other variables, like personality traits, advertisements, and the risk taking propensity.
- Develop qualitative studies to understand preferences in advertisements.
- The use of other advertisement medium.

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