Patterns of information search among semi-durable goods buyers

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Consumers acquire information from a variety of out-of-store and in-store sources. Sources differ in their abilities to convey different kinds of information. This paper examines the implications of these sources for designing effective marketing strategies by comparing search behaviour of hypermarket shoppers for two product classes. Data were obtained from two samples, 250 buyers of small electrical appliances and 250 buyers of car accessories and hardware equipment by means of in-store observations and on the spot post-purchase interviews to detect out-of-store information search. The study revealed that 69,5% of shoppers of the combined sample visited only one store prior to purchase. This finding is in accordance with results obtained from an earlier study and with that of other researchers working in the field. Results further indicate that consumer-dominated sources (influence of relatives, friends or neighbours) were consulted more frequently than were market-dominated sources (printed and audio-visual advertising, in-store promotions, displays and personal selling), prior to purchase. Differences in search patterns emerged from the two subject samples which may be ascribed to product class attributes. More research, however, is needed to verify these tentative findings.

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Verbruikers bekom inligting deur 'n verskeidenheid bronne buite en binne die winkelomgewing te raadpleeg. Bronne verskil in hul vermoë om verskillende tipes inligting oor te dra. Hierdie artikel ondersoek die implikasies van sulke bronne vir implementering van doeltreffende markstrategieë deur inligtinginwinningsgedrag by hipermarkkopers in twee produkklasse te vergelyk. Data is ingesamel uit twee steekproewe, 250 kopers van klein elektriese toebehore en 250 kopers van motorbykomstighede en ysterware deur middel van waarnemings binne die winkel en na-verkope-onderhoude, ten einde inligtinginwinning buite die winkel te bepaal. Die studie toon dat 69,5% van kopers uit die gekombineerde steekproef slegs een winkel besoek het, voor die koop. Hierdie bevinding stem ooreen met resultate behaal uit 'n vroeëre studie asook met dié van ander navorsers werksaam in dieselfde veld. Resultate toon verder dat verbruikersdominantebronne (invloed van familie, vriende of bure) meer dikwels geraadpleeg is as markdominante bronne (gedrukte en oudio-visuele reklame, bevorderings binne die winkel, vertonings en persoonlike verkope), voor die koop. Verskille in inwinningspatrone het na vore getree by die twee steekproewe. Hierdie verskille mag toegeskryf word aan produkklaseienskappe. Meer navorsing word egter benodig om hierdie tentatiewe bevindinge te bevestig.

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Introduction

Out-of-store and in-store information search are important aspects of the process by which consumers make decisions. Little is known about pre-purchase information search of hypermarket shoppers in South Africa. This report addresses three interrelated issues pertaining to consumer information seeking behaviour. First, do hypermarket shoppers engage in less pre-purchase information search at other stores, than non-hypermarket shoppers, based on the former's assumption that the hypermarket sells at the lowest possible cut prices? Second, are the preliminary findings obtained from a previous study (Rousseau, 1982) substantiated, namely that hypermarket shoppers rely more on consumer-dominated than on market-dominated sources in pre-purchase information search? Thirdly, are there any significant differences in the search behaviour of consumers shopping for the two product classes chosen to represent semi-durables, and if so, what could have accounted for these differences?

It has been suggested from the literature that information seeking varies directly with price, which may represent importance of the purchase and opportunity to profit from search (Newman, 1977). This would imply that the proportion of buyers visiting more than one retail store or making more than one shopping trip before buying would increase with the rising of prices for non-food items. On the other hand, buying by brand or at a certain store constitutes a shortcut purchasing strategy that may reflect knowledge gained from prior experience. Simulated consumer choice experiments have found that search declined as subjects readily learned to buy by brand over a series of trials (Newman, 1977). Brand or store names may further stand as composites of information the buyer has found to be relevant. A number of studies have shown that consumers engage in very little overt search for information, even for expensive products such as major appliances and furniture (Claxton, Fry & Portis, 1974; Katona & Mueller, 1955; Newman & Lockeman, 1975). Does this lack of active search also apply to hypermarket shoppers and if so, why?

Interpersonal communication has been widely studied in many research projects and is held to be a major source of market information. In all previous studies in which comparisons were made of the use of different sources of information, interpersonal or consumer-dominated sources were named more frequently than were mass media or market-dominated sources (Katona & Mueller, 1955; Thorelli, 1971; Udell, 1966). A recent study on search behaviour of Australian car buyers indicated that previous satisfactory and reliable experience with the product were associated with less dealer and

media search (market-dominated sources) although interpersonal search (consumer-dominated sources) were unaffected (Kiel & Layton, 1981). Does our preliminary finding that consumer-dominated sources are more frequently consulted than market-dominated sources, support those of other researchers; and if so, does this imply that hypermarket shoppers would persist in consulting consumer-dominated sources, irrespective of previous satisfactory product and retailer experience?

Few researchers have attempted to compare search behaviour of consumers for various product classes in the store. Capon and Burke (1980) chose a steam iron, toaster oven and microwave oven to represent items of low, medium and high perceived risk in a simulated study on consumer information processing. They found marked differences in information acquisition for subjects at different socio-economic levels but state that product class factors could have affected their results (Capon & Burke, 1980). In a study on individual differences in search behaviour for a non-durable, Moore and Lehmann (1980) used five types of health bread. The authors conclude that stated importance of an attribute was positively correlated to the amount of search for that attribute. Although both these studies were executed in simulated artificial conditions, employing small numbers of students as subjects, it seems logical to keep in mind the importance of product class attributes to differences in search behaviour. Consequently the question is raised as to what extent such factors could influence search behaviour of hypermarket shoppers in two departments of a store.

The present study attempts to replicate research carried out in a previous study. However, a more heterogeneous population appeared desirable and therefore a larger sample of shoppers in two departments of the same store was selected. The product classes chosen differed widely in their relative importance or potential pay-off. The following issues are to be explored: How many sources of information do consumers of small electrical appliances, car accessories and hardware equipment consult before they buy? Do these sources vary in number and kind? Who participates in the decision-making process at the point of purchase? How much time is spent deliberating on the shopping floor, prior to purchasing? What are the decisive determining factors for choosing a particular item?

Due to the exploratory nature of this research in South Africa, the setting of specific hypotheses were regarded as premature at this stage. Consequently the following three design hypotheses arising from theory, were postulated:

H1 Hypermarket shoppers engage in little pre-purchase information search at other stores due to the low price image of hypermarkets and price awareness of its customers.

H2 Hypermarket shoppers rely more on consumer-dominated than market-dominated sources in their pre-purchase information search.

H3 Search behaviour of consumer shopping for small electrical appliances differs substantially from those of car accessories and hardware equipment buyers, due to differences in product class attributes.

Method

Subjects

The subjects were 250 buyers of small electrical appliances and 250 buyers of car accessories and hardware equipment at a large Eastern Cape hypermarket. A sample was taken in the store at point of purchase. Table 1 indicates demographic characteristics of the samples.

Inspection of the data displayed in Table 1 indicates that subjects purchasing small electrical appliances were mainly White females under the age of 35 years falling in the middle social class bracket. Subjects purchasing car accessories and hardware equipment were mainly White males under the age of 35 years, falling in the middle social class bracket. More Coloured shoppers were found in the car accessories and hardware department than in the small electrical appliances department. Black shoppers were poorly represented in both samples due to their absence in the store.

Measures

Information source usage was determined by a combination of aided and unaided recall survey questions as well as in-store observations. Survey questions designed to detect out-of store information search focused on the following activities: visits to different retail outlets; telephone enquiries to other stores; readings of brochures, instruction booklets, newspaper or magazine adverts or articles; seeking advice or opinions from friends, neighbours or relatives; recalling of radio or TV commercials on the product purchased and own previous experience with the product.

In-store information search was detected and recorded on

Table 1 Characteristics of subjects in the two sample groups (number of respondents, *n*; percentages in brackets)

		Sex				Age in years						Social class					
		Male		Female		0–35		36–50		50+		Low		Middle		Upper	
Group	Race	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
I	White	76		133		102		71		36		46		154		9	
(Small electrical	Black	3		2		2		3		–		1		2		2	
appliance buyers)	Coloured	6		12		11		7		–		10		7		1	
	Asian	10		8		14		3		1		1		15		2	
Total		95	(38)	155	(62)	129	(52)	84	(33)	37	(15)	58	(23)	178	(71)	14	(6)
II	White	172		18		119		41		30		42		137		11	
(Car accessories	Black	8		1		8		1		–		4		5		–	
hardware buyers)	Coloured	41		1		27		11		14		15		23		4	
	Asian	8		1		6		3		–		–		5		4	
Total		229	(92)	21	(8)	160	(64)	56	(22)	34	(14)	61	(24)	170	(68)	19	(8)
All groups		324	(65)	176	(35)	289	(58)	140	(28)	71	(14)	119	(24)	348	(70)	33	(6)

an observation schedule. The following activities were observed: reading of store adverts; physical examination and comparing of products, prices; seeking advice from sales staff, fellow shoppers; testing of the product and searching for a particular brand. Any verbal communication between sales staff and buyers or between shopping party members were also recorded on a check list. A deliberation index was used to record total shopping time and spending per shopping minute. Data relating to the purchasing environment and product characteristics were also recorded. Pre-purchase activities were categorized as market-dominated, consumer-dominated and neutral information sources.

Procedure

Purchasers of small electrical appliances, car accessories and hardware equipment were intercepted on the sales floor in two departments of a leading hypermarket in Port Elizabeth. Three post-graduate university students acted as field-workers. Each field-worker observed and afterwards interviewed only one buyer at a time. In order to observe closely, yet not contaminate the behaviour of shoppers, field-workers stood near the small electrical appliances, car accessories and hardware shelves and tried to present the appearance of a store clerk, taking stock with a clipboard. The observers were successful in obtaining an unobtrusive vantage point from which they could listen to conversations and comments and watch much of the behaviour without being noticed. Immediately after the customer had put an item into his shopping cart, he or she was approached for a short interview.

The sample was taken over a four-month period with field-work done at various times of the day, week or month in order to obtain an even distribution of shopping behaviour at peak and quiet intervals. After the field-work, observation forms and interview sheets were coded by the author who summarized and compared search activities and communications in the two departments. Where possible, comparisons were also made with data obtained from the earlier study.

Results and Discussion

Analysis of the data consisted mainly of summation of individual responses from questionnaires and items checked on the observation schedule. Mean calculations reflect overall trends and chi-square tests were used to examine differences between the groups. Deductions were also made from inspection.

Tables 2 and 3 summarize the pattern of information source usage as defined by the sample groups. The tables also reflect intensity of usage of the various sources. For retail information sources intensity of usage was scaled by the number of different stores visited during purchase deliberations. For market, consumer and neutral dominated sources, intensity of usage was scaled according to whether or not the source was indicated as a main source.

For purposes of testing for significance of differences between the two groups in Tables 2 and 3, scores were totalled within each of the categories, chi-square was then applied to the data, resulting in a three by two table. In both tables non-significant differences were found between the two groups.

Table 2 shows a relatively low level of retail visits to more than one store for all the groups. This finding supports previous results that many customers do little if any advance information gathering (Newman, 1977). It may also further the assumption that hypermarket store image could substitute the time and effort consumers would normally spend searching for similar products at traditional retail outlets. Table 3 is characterized by a considerable reliance on consumer-dominated sources, lesser reliance on market-dominated sources and few consultations of neutral sources. These findings tentatively support H1 and H2 but need detailed analysis for further classification.

Table 4 reflects response scores obtained from the following aided recall question posed in the interview: 'Before buying, which of the following sources did you use to make sure of getting what you were looking for . . .?' (The categories used can be seen on inspection from the table.)

Table 2 Information from retail stores used by two groups of buyers (number of respondents, *n*; percentages in brackets)

		Number of visits to retail stores							
		1		2–3		4+		Total	
Group	Type of goods purchased	*n*	%	*n*	%	*n*	%	*n*	%
I	Small electrical appliances	167	(67)	73	(29)	10	(4)	250	(100)
II	Car accessories hardware	180	(72)	55	(22)	15	(6)	250	(100)
All groups		347	(69)	128	(26)	25	(5)	500	(100)

$\chi^2(2) = 4{,}02,\ p > 0{,}05.$

Table 3 Sources of information used by two groups of buyers (numbers of responses, *R*; percentages in brackets, indicating use of source — the second percentage indicates use as main source)

		Market-dominated sources			Consumer-dominated sources			Neutral sources			Total		
Group	Type of goods purchased	*R*		%	*R*		%	*R*		%	*R*		%
I	Small electrical appliances	164	(37)	(25)	252	(57)	(56)	26	(6)	(5)	442	(100)	(86)
II	Car accessories hardware	120	(31)	(24)	235	(61)	(53)	31	(8)	(4)	386	(100)	(81)
All groups		284		(34)	487		(59)	57		(7)	828	(100,0)	

$\chi^2(2) = 4{,}08,\ p > 0{,}05.$

From the table it seems that personal consumption experience was a main source of information acquisition prior to purchase for both groups. Advertisements as well as pamphlets and brochures were regarded as important market-dominated sources while few respondents bothered to make telephone enquiries to other stores. Instruction booklets were regarded as an important source for unbiased product information.

Comparing the distribution of responses over all nine sources listed in Table 4, significant differences are found between the two groups ($\chi^2(8) = 37{,}88, p < 0{,}001$). There are significant differences within the market-dominated sources over the four items listed ($\chi^2(3) = 26{,}37, p < 0{,}001$) and within consumer-dominated sources over the three items ($\chi^2(2) = 6{,}51, p < 0{,}05$). In addition, there is a noticeable difference between the groups in respect of absolute frequency of information gathering (442 vs. 386 or on average 1,77 vs. 1,54 sources per person).

Table 5 shows responses obtained from the following unaided recall question: 'If you had to recommend a reliable information source to a friend concerning the purchase of this particular item, who would you tell him to consult or where to look for advice?

Responses from this table suggest an overwhelming support for market-dominated sources such as visits to retail outlets where product and price ranges may be checked. A large proportion of respondents further specifically recommended the hypermarket which may indicate store loyalty or price awareness. Bearing in mind that respondents themselves visited few retail outlets, engaged in few telephone enquiries and consulted mainly consumer-dominated sources prior to purchase, it seems as though people may be rational in their recommendation concerning information search, while they themselves act non-rationally in their own search behaviour. When comparing the groups in respect of market-dominated vs. 'other sources' ($\chi^2(1) = 0{,}504, p > 0{,}05$) or a market vs. consumer vs. neutral

Table 4 Information sources used prior to purchase (number of responses, *R*, to aided recall questions)

	Market-dominated sources				Consumer-dominated sources			Neutral sources	
Group	Newspaper and magazine adverts, pamphlets and brochures	Radio and TV commercials	Promotion and displays	Telephone enquiries	Family, friends, neighbours experience	Family, friends, neighbours advice	Personal consumption experience	Newspaper and Magazine articles, consumer reports	Instruction booklets
I ($R = 442$)	77	40	24	21	75	71	108	3	23
II ($R = 386$)	65	5	36	14	48	65	123	8	22

$\chi^2(8) = 37{,}88, p < 0{,}001$.

Table 5 Information sources recommended to others (responses, *R*, to aided recall questions)

	Market-dominated sources			Consumer-dominated sources			Neutral sources
Group	Consult hypermarket product/ price range	Consult speciality store product/ price range	Consult sales staff	Check newspaper and magazine adverts, audio-visual adverts	Consult family, friends, neighbours with product experience	Consult specialist using product in his work	Check instruction booklets, articles, consumer reports
I ($R = 212$)	160	9	13	1	24	1	4
II ($R = 219$)	137	49	1	7	11	9	5

$\chi^2(2) = 0{,}881, p > 0{,}05$ (for condensed 3×2 table).

Table 6 Prime motives for purchasing small electrical appliances

	Price	Quality product, reliable brand	To ease workload, time-saving appliance	Product replacement	Gift	Safety features	Cater for children's needs	New addition to existing set
Response ($R = 610$)	149	173	115	59	74	14	14	12

Table 7 Prime motives for purchasing car accessories and hardware equipment

	Price	Quality product, reliable brand	To ease driving	Time- and money-saving appliance	Product replacement	Safety features	Upgrade vehicle performance and looks	New addition to existing set
Response ($R = 540$)	160	133	24	47	49	31	65	31

sources ($\chi^2(2) = 0{,}881, p > 0{,}05$) differences between the two groups for this table were non-significant.

Tables 6 and 7 indicate responses obtained from each group to the unaided recall question: What was the main reason for choosing this particular product? From these tables it seems as though people shopping at a hypermarket are price conscious and believe that they get quality products and reliable brands at such stores. Price awareness may therefore be a salient characteristic responsible for the lack of overt search at other stores. Reliance on own previous product experience may further have obviated the necessity to engage in extensive search behaviour at other stores. This speculation of a possible relationship between a decrease in overt retail search with increased experience may be in line with similar findings made in a study on search behaviour for bread (Moore & Lehmann 1980).

Inferences from Table 6 further show that buyers of small electrical appliances viewed their decisions as a means to ease workload and as time-saving appliance in addition to quality, reliability and price. Buyers of car accessories and hardware equipment also indicated that in addition to quality, reliability and price, upgrading the performance of their vehicles, and product replacements were important reasons for purchasing (Table 7).

Table 8 reflects response scores obtained from items measuring in-store information search. Responses from the various categories were summed for each group resulting in a combined five by two table which showed significant differences between the two groups ($\chi^2(4) = 63{,}07, p < 0{,}01$). These differences observed between the two groups were mainly due to reading of operating instructions, selection of moderately priced brands and seeking advice from fellow shoppers. Despite these differences it appears from inspection of the table that both groups tended to read the price tag prior to purchase, examined performance and safety features carefully and tested the product.

Table 9 displays an interaction score for monitoring verbal communication during in-store information search. Here again significant differences between the two groups were obtained from a combined three by two table ($\chi^2(2) = 22{,}0, p < 0{,}01$). The differences result from discussions on maintenance cost, functional qualities, after sales service and safety features. These differences as well as those observed in Table 8 between the two groups may well reflect different attributes of the two product classes.

Similarities observed between the two groups from Table 9 show that most conversations focused on performance and economic features of the products considered. The low level of interaction with sales staff recorded, may result from their absence on the sales floor during observation periods. In the previous study more interactions with sales staff than with fellow shoppers were recorded (Rousseau, 1982).

As part of in-store observations consumers' total shopping time as well as the prices of products bought were recorded. Table 10 indicates substantial differences between the two groups. On average people took longer to make up their minds on buying small electrical appliances than on buying car accessories and hardware equipment. The mean spending per shopping minute was also larger for small electrical appliances (R5,14) than for car accessories and hardware equipment

Table 8 In-store information search (responses, *R*, to measuring in-store search)

	Reading			Examining		Seeking advice		Selecting			Purchasing		
Group	Store advert	Operating instructions on article	Price tag	Performance and safety features	Prices of various brands	From fellow shoppers	From sales staff	The cheapest brand available	A moderately priced brand	After testing product	Subsequent to salesman's demonstration	After search for specific brand	Promptly without deliberation
I ($R = 1278$)	66	67	186	201	68	127	66	83	133	177	26	33	45
II ($R = 1220$)	47	164	218	241	63	83	40	70	49	146	23	47	29

$\chi^2(4) = 63{,}07, p < 0{,}01$.

Table 9 Verbal communication (responses, *R*, to monitoring verbal communication during in-store information search)

		Economic		Performance			Product attributes	
Group	Communication items	Price	Maintenance cost	Operating instructions	Functional qualities	After sales service	Guarantee	Safety features
I	Discussions with sales staff,	25	6	40	39	7	9	2
	fellow shoppers	21	44	22	70	3	3	43
II	Sales staff,	12	2	17	28	–	2	1
	fellow shoppers	56	2	17	71	–	3	2

$\chi^2(2) = 22{,}00, p < 0{,}01$.

Table 10 Mean in-store shopping time and spending per shopping minute (number of respondents, *n*)

Group	Time spent reading	Time spent examining	Time spent seeking advice	Total mean shopping time	Mean spending per shopping minute
I ($n = 250$)	0,52	3,56	2,32	7,40	R5,14
II ($n = 250$)	0,50	3,42	0,93	4,85	R3,13

(R3,13) ($t = 4{,}75$, $p < 0{,}01$). Once again these differences may reflect variants in product class attributes as many shoppers buying small electrical appliances also shopped for items in the car accessories and hardware department.

Conclusion

As hypothesized (H1) the findings of this study indicate that hypermarket shoppers for small appliances, car accessories and hardware equipment engage in little overt search at other stores prior to purchase. Reasons for this behaviour tendency are speculative though there is evidence that store loyalty stemming from price awareness and previous experience may well account for it.

Stated importance of consumer-dominated sources in search behaviour (H2) was upheld in responses relating to subject's own pre-purchase information search. When suggesting reliable information sources to others, market-dominated sources were favoured by respondents. This anomaly reflects lack of insight into consumers' own buying behaviour in that they may well believe they act rationally whilst the opposite might be the case.

There was tentative support for the third hypothesis (H3) postulating that differences in search behaviour may be due to differences in product class attributes. Data reflecting in-store information search based on observations showed significant differences between the two groups while data obtained from personal interviews gave contradictory results. The differences recorded relate to variants in buying motives, reading and discussing of product attributes, deliberation time and spending per shopping minute. More research, however, is needed to determine the stated importance of product class attributes in search behaviour.

By way of summary it may be stated that regarding patterns of information search relating to number of stores visited and use of consumer-dominated sources, this study revealed no significant differences between the groups investigated. Therefore, in planning marketing strategies, marketers may assume that consumers do little if any explicit information gathering at other stores, that a substantial amount of search activity both on a perceptual and verbal level takes place within the store and that consumers weigh the opinions of others heavily in their search activity. As for search behaviour *per se*, product class attributes may be a salient factor responsible for different patterns which emerged between the two groups.

Although, as stated earlier, a heterogeneous sample was sought after, owing to the weak representation of subjects from various racial and socio-economic classes, it turned out to be less heterogeneous than desired. This can be regarded as a limitation of the study. Furthermore, the sample was taken from only one store in order to control for different shopping environments. This suggests that some of the variable may be more or less important, in general, than was indicated by these results. Thus, a suggestion for potential research would be to replicate this type of study once more, allowing for a heterogeneous population, drawn from two or more hypermarkets.

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