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THE RELATIONSHIP BETWEEN COGNITIVE STYLE AND ASSESSED PERFORMANCE IN RETAILING.

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A RESEARCH REPORT SUBMITTED TO THE FACULTY OF BUSINESS ADMINISTRATION, UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MANAGEMENT.

JOHANNESBURG, 1989.

ABSTRACT

The objective of this research was to investigate the cognitive style of Fashion Buyers and Merchandisers, and how it relates to job-related problem-solving. Furthermore, the research investigated the perceived decision-making profile of Buyers and Merchandisers and the extent to which these perceptions are consistent among the job holders, their peers and their direct line managers.

The Kirton Adaption-Innovation Inventory was used to measure cognitive style, while performance appraisal data regarding the overall performance and problem-solving ratings of each Buyer and Merchandiser tested, was extracted from their personal files. The decision-making profile of Buyers and Merchandisers was established by using the Kelly Repertory Grid technique to elicit constructs for inclusion in a Likert-type perception questionnaire.

The results showed a clear difference between the cognitive style of Buyers and Merchandisers, which can be correlated with on-the-job problem-solving. Furthermore clearly distinct decision-making profiles were established for Buyers and Merchandisers, which are consistent among the job holders, their peers and line managers.

DECLARATION

I declare that this research report is my own unaided work, except for the assistance of the people acknowledged. It is being submitted for the degree of Master of Management, University of the Witwatersrand. It has not been submitted before for any degree or examination in any other University.

(Name of Candidate)

9th day of November, 1985.

DEDICATION

To my family, in fondest appreciation of their innumerable intangible contributions and sacrifices, and support.

ACKNOWLEDGEMENTS

I would like to express my thanks to the following for their assistance.

Mr J.H. Owens, Senior Lecturer : Human Resources, Business School, University of the Witwatersrand, for his patient guidance and assistance in supervising the research.

Mr M. Bendixen, Senior Lecturer : Quantitative Methods, Business School, University of the Witwatersrand, for his cheerful and expert guidance in test construction and data analysis.

The participants, who gave of their valuable time for questionnaire completion.

Mr J. McCloskey, Chain Human Resources Manager, Jet Stores (Pty) Ltd. for his support and encouragement.

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CHAPTER 1

INTRODUCTION AND PROBLEM DEFINITION

1.1 INTRODUCTION

The business cycle, consisting of upswings and downturns demands ongoing re-orientation from businesses, especially retailers. Fashion trends are "susceptible to constant and rapid changes ....." (Martin, 1973, pp. 69). Thus volatile, constant change with concomitant risk, characterizes the environment within which fashion retailers operate. Inertia cripples retailers.

"Since all products that are needed originate in consumers' problems and patterns, retailers increasingly focus on lifestyle as a beginning point in the analysis of strategies required to serve profitably, the needs of key market segments" (Blackwell and Talarzyk, 1983, pp. 7). No firm can cater to all sectors of the market simultaneously, however. In a competitive market system, firms that clearly understand the characteristics of their chosen market segments and consciously strive to satisfy the particular needs prevailing in those segments, greatly increase their probability of success (Samli, 1968, pp. 35). A market segment is any section of the market which can be identified on the basis of a set of criteria, with the aim of differential treatment. (Samli, 1968, pp. 35). Thus "segmentation of the

market improves retailer effectiveness" (Spitz and Flaschner, 1980, pp. 64). In retailing organizations, it is Buyers and Merchandisers who are responsible for developing a product assortment which meets the needs of the target market, and ensuring stock levels which capitalize on those needs. Their expertise is thus critical to the success of the organization.

The contribution of Buyers and Merchandisers towards organizational success can be demonstrated by examining their role in the marketing system of the company.

1.1.1 Marketing Mix

The marketing mix describes the marketing decision variables upon which the success of any marketing strategy is dependent. It can be defined as "the set of controllable variables and their levels that the firm uses to influence the target market (Kotler, 1980, pp. 80). Table 1 overleaf represents an elaboration of the marketing mix according to the four "P's" i.e. Product, Place, Promotion and Price.

TABLE 1 : THE FOUR P'S OF THE MARKETING MIX
(Source : Kotler, P. 1980. Marketing Management. Analysis, Planning and Control. New Jersey : Prentice Hall.)

PRODUCT	PLACE	PROMOTION	PRICE
Quality Features Options Style Brand name Packaging Sizes Warranties Returns	Channels Coverage Locations Inventory Transport	Advertising Personal selling Sales promotion Publicity	List price Discounts Allowances Payment period Credit terms

"Retail Buyers represent both retail firms and consumers in the market for merchandise. As such they play a critical role in the marketing system" (Ettenson and Wagner, 1986, pp. 41). The Buyer's influence on the marketing mix is substantial, in that their responsibility for forecasting fashion trends and the procurement of appropriate merchandise impacts on all four of the elements of the marketing mix :

- Product : The Buyer decides on the styling, colour, quality, brand name, packaging and quantities of merchandise for seasonal assortments.

- Place : The Buyer decides on the route which the merchandise follows prior to delivery to the

store. In addition the Buyer exerts influence over in-store co-ordination of merchandise.

- Promotion : The merchandise to be featured in forthcoming promotions is selected by the Buyer, and sufficient quantities bought to support the promotional campaign.

- Price : The Buyer negotiates directly with Suppliers regarding the price and payment period for merchandise, and determines retail selling price points based on mark-up requirements.

An essential element in fashion retailing is the consumer's need for variety due to the dynamic nature of product and fashion life cycles in particular. The characteristics of these cycles must be borne in mind at all times by Buyers and Merchandisers who determine product offerings.

1.1.2 Product Life Cycle :

The product life cycle (James, Walker and Etzel, 1981; Lowry, 1983) describes the five typical phases of goods as they move from introduction to decline :

- Introduction : the product is introduced to the market. Intense advertising and promotional activity is required, in order to create consumer awareness of, and demand for, the product. In addition to high advertising and promotional costs, other introductory costs are high, resulting in low profits.

- Growth : sales volumes increase rapidly as do profits. As prices firm, margins remain relatively high and promotional costs are proportionately reduced.

- Maturity : sales continue to increase but at a reduced rate. Competitive products enter the market and impact on gross margins and profits.

- Saturation : a sales plateau is reached and some customers move on to new products. In order to retain market share, the retailer turns to special promotional activities and discounting, or attempts are made to differentiate the product from similar products eg. telephones in different colours and shapes, leotards designed for different purposes eg. ballet, gymnastics, aerobics.

- Decline : a continual loss of sales and profits occurs, which may be gradual or more rapid if the product is displaced by a new one in the market.

Figure 1 shows the product life cycle phases described above.

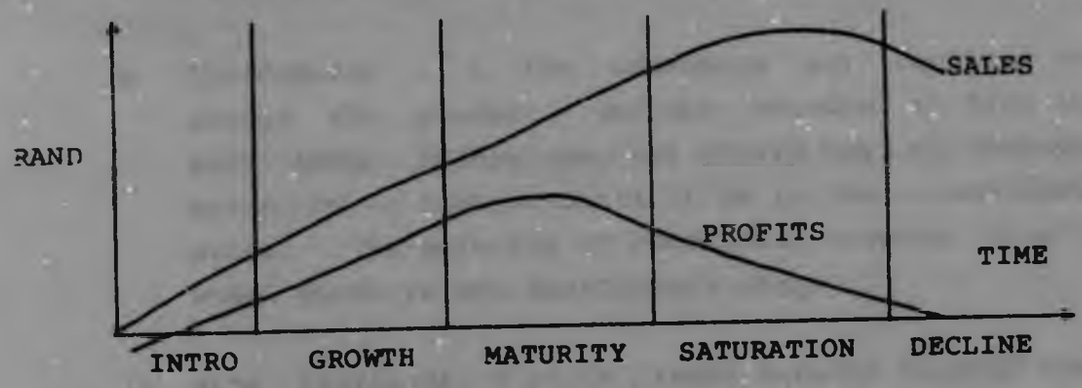


FIGURE 1 : PRODUCT LIFE CYCLE STAGES.
(Source : Adapted from James, D.L., Walker, B.J., and Etzel, M.J. 1981. Retailing Today. New York: Harcourt Brace Jovanovich.)

1.1.3 Fashion Life Cycle

The fashion life cycle is a special form of product life cycle. The five stages reflect consumer response to a product over time (Lowry, 1983, pp. 382).

- Distinctive Stage : a style is introduced to the market and purchased by individuals who desire the prestige of being associated with a new fashion. The price tends to be relatively high and supply of the item limited.

- Emulation Stage : a larger group of consumers purchase the item although supply remains relatively restricted.

- Mass Emulation Stage : the product is widely stocked and thus available to the mass market.

- Decline Stage : the market has been saturated with the item, which has thus lost its unique appeal. Production of the item slows or stops and retailers mark down the goods to clear out stocks.

- Abandonment : a few consumers may continue to accept the product, perhaps because it fits in with their lifestyles; yet others may only become aware of a fashion until it is in the abandonment stage. The majority of retailers, however, do not stock goods in the abandonment stage.

In some instances, a style passes rapidly through the stages of the fashion cycle and is quickly abandoned. Such an acceleration of the cycle is termed a fad.

Figure 2 contrasts the typical life cycles of staple, fashion and fad items.

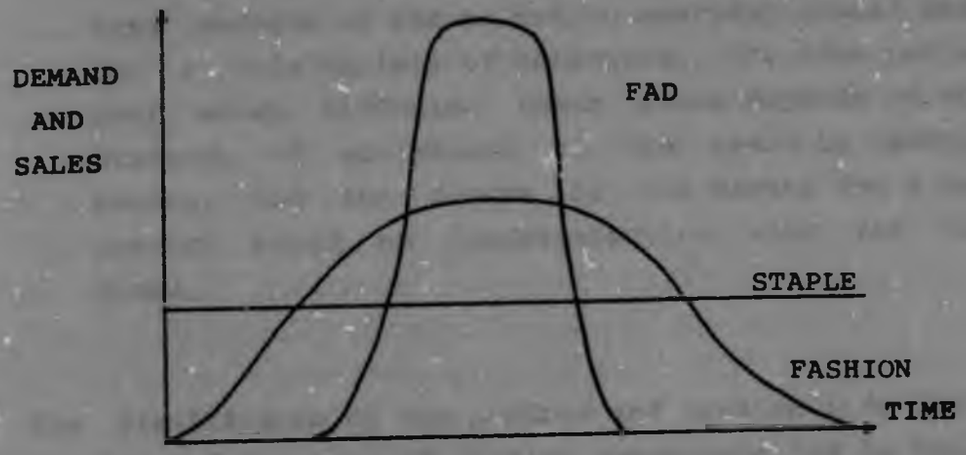


FIGURE 2 : TYPICAL LIFE CYCLES : STAPLE, FASHION AND FAD PRODUCTS

(Source : Hartley, R.F. 1975. Retailing. Challenge and Opportunity. Boston : Houghton Mifflin.)

1.4 Fashion Acceptance

Observation of consumer behaviour leads to two explanations for the acceptance of a fashion (Lowry, 1983, pp. 383) :

- Trickle-down theory : this theory postulates that new fashions are accepted first by the wealthiest group of consumers. Thereafter, the fashion becomes accepted or "trickles down" to other groups.

- Diffusion Process : a more useful theory for explaining the movement of fashion trends, this theory describes how fashions move across market

segments eg. tracksuits have moved from the athlete section of the market to everyday casual wear for a wide variety of consumers. The time period over which diffusion takes place depends on the strength of acceptance of the trend by opinion makers, and the desire in the market for a new product based on dissatisfaction with the old items.

The significance of the product and fashion life cycle stages and theories of fashion acceptance lie in their application to fashion goods. Buyers evaluate and integrate a wide variety of information when making decisions on products. A knowledge of the market segment for which an assortment is planned, together with an application of the product and fashion life cycle stages enables the Buyer to make critical merchandise decisions. A Buyer for a prestigious fashion store may wish to include new fashion trends in her assortment early in the season, whereas the Buyer catering for a larger mass market may exclude that fashion trend entirely or only include it in merchandise deliveries later in the season. For the fashion Buyer, change and its attendant risk are fundamental elements with which she must cope and exploit. In order to maximize sales, the ongoing creation of "sustainable competitive advantages" (Blackwell et al, 1983, pp. 13) is a priority.

The Buyer's role is complemented by the Merchandiser, whose role it is to plan, implement and control the distribution of merchandise to stores to meet quantitative targets eg. sales budgets, ROI targets, stockturn targets. The Merchandiser's role is the development of seasonal and annual budgets for sales, merchandise buy, markdowns and discounts, and planned stock levels. Thereafter, updating of these plans in

response to changing market conditions, is vital. His role further involves the compilation of store grids i.e. groups of stores according to their turnover and consumer profile characteristics, according to which merchandise will be distributed. Finally ongoing monitoring of stock levels and sales performance, and prompt action in response to out-of-line situations ensures that profitable sales are maximised. Together Buyers and Merchandisers form a cohesive entrepreneurial team, which is a crucial link in the chain of retailing events (Barker and Farrington, 1976).

1.2 PROBLEM DEFINITION

"While the importance of different (organizational) factors is debatable, it seems reasonable to assume that what a store has to sell - its product - makes a major contribution to the sales success of that store" (Martin, 1973, pp. 69). Accurate decisions regarding the saleability of merchandise are crucial to a successful retail Buyer. The Buyer is an expert in evaluating the suitability of an item for an assortment to meet the Chain's marketing strategy.

Martin (1973, pp. 80), in examining the role of the Buyer in a retailing organization's success, acknowledges that it is their discretion, which lies in "the decision-making powers given to Buyers to determine both merchandise and resources" which is vital. The Buyer, however, selects an assortment according to prepared plans which ensures that quantitative seasonal and annual objectives are met. These plans are developed by the Merchandiser who following finalisation of the buy, ensures ongoing

effective and rational management of inventory levels. The challenge for the Human Resource practitioner involved in the selection and development of successful Buyers and Merchandisers in fashion retailing, lies in the identification of candidates for placement in, or development towards, the Buying and Merchandising functions.

The size of the fashion retailing sector in South Africa is relatively small. Thus the availability of qualified and experienced Buyers and Merchandisers in the labour market is extremely limited. This poses a challenge for Human Resource practitioners in terms of providing suitable candidates to meet ongoing manpower needs. Major fashion retailers have been forced to establish training programmes to develop candidates with the necessary skills and knowledge required for the Buying and Merchandising roles. The development of such a programme presupposes the identification of primary personality characteristics and core abilities, required for successful completion of the training programme and ultimately competent job performance.

The nature of the Buyer and Merchandiser roles differ greatly from one another, indeed they are complementary within the entrepreneurial team. Because the nature of the jobs differ, the skills and abilities required for successful job performance differ. One of the most fundamental areas in which differences lie is in the nature of the problems faced, and the decisions required. The importance of the decision-making profile of Buyers and Merchandisers is based on the critical impact which their decisions have on the success of the organization.

1.3 SCOPE AND OBJECTIVES OF THE RESEARCH

1.3.1 SCOPE

The scope of this research is limited to investigating the decision-making profile of Buyers and Merchandisers in the fashion retailing sector. It will therefore exclude Buyers and Merchandisers in the sectors other than fashion - clothing, footwear and household textiles. Furthermore, the focus will be on the decision-making characteristics as opposed to other personality traits eg. aggression; or skills eg. interpersonal skills, applied management skills (planning, organizing, leading and controlling) etc. Decision-making is felt to be a critical function in these jobs.

1.3.2 OBJECTIVES

The first objective of the research will be to establish whether or not a difference can be measured in the cognitive style of Buyers and Merchandisers.

Furthermore, the correlation between cognitive style and job performance will be investigated.

A further objective will be to establish the perceptions of job holders, colleagues and direct line managers of the differences in terms of decision-making characteristics, of successful Buyers and Merchandisers.

Finally, the relationship between self, peer and line managers' perceptions of the decision-making

characteristics of Buyers and Merchandisers will be investigated.

1.3.3 TENTATIVE HYPOTHESES :

The first hypothesis proposes that the cognitive style of Buyers and Merchandisers differs.

The second hypothesis postulates that a positive correlation exists between cognitive style and successful job performance.

The third hypothesis proposes that the perceived decision-making characteristics of Buyers and Merchandisers differ.

The fourth hypothesis postulates that differences will exist between the self, peer and line manager perceptions of the decision-making characteristics of Buyers and Merchandisers.

1.5 OVERVIEW OF SUBSEQUENT CHAPTERS

Chapter Two of this research report will give a theoretical overview of problem solving and cognitive style in particular, with reference to relevant research findings. The need for existing theory and research to be extended to the fashion retailing field will be discussed.

Chapter Three covers the research methodology. Firstly the literature survey of the previous chapter is extended to cover the theoretical background to the

methodology used. The concept of cognitive style is discussed leading to a discussion of the test instrument used; and the concept of perception formation is examined before discussing the method of questionnaire design and administration. The sampling method is discussed, followed by an outline of the statistical and computational method used. Thereafter a discussion of the limitations of the methodology used, follows.

A description and analysis of the results obtained follows in Chapter Four. In Chapter Five, an evaluation of the results, together with a discussion of limitations encountered during the course of the research, and their implications for the research results, is presented. The chapter draws conclusions from the preceding analysis, discusses whether the hypotheses have been substantiated, and makes recommendations on the basis of the available conclusions. Suggestions for further research arising out of the results of the study are outlined.

The final chapter re-examines the original objectives of the research and evaluates whether they have been met.

CHAPTER 2

SIGNIFICANT PRIOR RESEARCH

2.1 COGNITION : AN HISTORICAL PERSPECTIVE

The field of cognitive psychology is vast, due to man's fascination with how the human mind operates. Thinking may be defined as "a sort of inner activity not immediately revealing itself to observation" (Van Geer, 1957, pp. 5), the main obstacle to studying thinking being its inaccessibility to observation. "Thus all that we can observe are the results of thinking, rather than the processes which led up to them" (Wason and Johnson-Laird, 1968, pp. 9). Studies in this field were led by Wilhelm Wundt, who over a century ago, in 1879, opened a laboratory in Leipzig, Germany, and began to examine psychological issues using the introspection technique, in which subjects described what they were thinking while they worked on a task (Matlin, 1983, pp. 3). Almost simultaneously, Galton established a laboratory in London where tests of visual acuity and reaction time, which were regarded as indicators of more profound intellectual capabilities, were conducted (Taylor, 1987, pp. 1).

At the beginning of the twentieth century Behaviourism developed. Behaviourists stressed that concepts should be carefully and precisely defined and only objective, observable reactions studied. Laboratory psychologists criticised the introspective technique as unscientific, and consciousness as being too vague

to be investigated properly. The human organism was viewed as a passive receiver of input, reacting only to stimulation, and building up a repertoire of likely responses (behaviour), depending on which of these led to a satisfying state of affairs. Since thinking is not easily observed, Behavioural psychologists assumed "implicit or internal stimuli and responses which mediate the overt responses, indicating the solution of the problem" (Wason et al, 1968, pp. 9).

While Behaviourism found favour in the United States, Gestalt psychology developed in Europe, which stressed that analysis of conscious experience into elements destroys its essential nature, as the whole is greater than the sum of its parts. The results of this approach was that perception, learning and thinking became not isolated processes but aspects of the basic process of organising or structuring (Radford and Burton, 1974, pp. 41).

By the 1930's psychological tests had advanced to the stage where Thurstone had developed a multifactorial model of human intellect, which formed the basis for the development of a range of tests of cognitive ability. Relatively few important developments in testing have occurred since then, apart from rationalisation of the number of test items necessary to assess individual performance, and research into the reliability and validity of tests. Thus "current psychological measures give only a gross description of mental characteristics, just as engine power describes an engine only grossly" (Taylor, 1987, pp. 1), and have not changed much in their essential nature.

Psychologists today however, are emphasizing the quality rather than the quantity of cognitive functioning. Rather than measuring the "how much" or level of performance as traditional tests of cognition have done, the "how" of performance is being examined. This is evident in the application of the computer analogy (man as an information processor) to human cognition; and the linking of personality correlates to cognition.

2.2 COGNITION AND INFORMATION PROCESSING

The information processing approach has helped to move cognitive psychology away from the black box concept of human mental functioning. Testing based on the black box model involved "eliciting rather gross responses to rather crude and ill-defined inputs, and interpreting those responses in an equally crude way. Analysis based on such data (as is done in factor analysis for instance), can at best give some indication of the main 'circuit boards' in the black box. At worst it can confuse the observer with unexpected and fluctuating output, which occurs partly because the inputs (tests applied to the box) are so gross and impure" (Taylor, 1987, pp. 7).

The information processing paradigm differs radically from conventional psychometrics in that information is viewed as being processed through a sequence of stages, each stage performing a specific function until a response is formulated or the information is stored in memory. This view thus regards the human organism not as passive, reacting to stimuli in a "mechanical way, but as an active, hypothesis-testing system" (Wason et al, 1968, pp. 10).

Information processing theory has identified a number of metacognitive skills or processes, including :

1. Recognizing that a problem exists.

2. Exhaustively examining the stimulus material.

3. Assembling all the relevant information in working memory.

4. Selecting a representation for the problem.

5. Being analytical - breaking the task down into subgoals.

6. Planning the task execution strategy.

7. Allocating processing resources.

8. Monitoring the effectiveness of the steps taken.

9. Testing one's strategy as one performs it.

10. Revising one's strategy as the need arises.

11. Evaluating the strategy for effectiveness.

12. Storing information in such a way as to facilitate transfer to related tasks in the future (Taylor, 1987, pp. 71).

One of the means utilized to study metacognitive processes has involved the analysis of verbal protocols of subjects who have been given a

problem-solving task to complete. Sternberg, according to Taylor (1987, pp. 71), has stated his intention to develop a battery of tests of the pencil-and-paper variety, to assess various metacognitive abilities, which would be of significant value to research in this field.

2.3 THE COGNITION-PERSONALITY INTERFACE : COGNITIVE STYLE

These approaches have sought to analyze individual differences in cognitive functioning by assessing cognitive style. Cognitive styles may be defined as "consistent differences in the way people organize and process information" (Matlin, 1983, pp. 357). Cognitive "styles are broad approaches to processing information which reflect, or are influenced by, certain characteristics in the 'grey area' between personality and cognition" (Taylor, 1987, pp. 70). To an extent therefore, cognitive styles are focused on differences between individuals and concentrate on the macro level of cognition; whereas metacognition is aimed at developing common trends in cognitive behaviour, concentrating at the micro level of cognition. Cognitive style is pervasive and is likely to affect the way a number of metaprocesses are executed. Cognitive styles do not emphasize the content of cognition or the level of skill shown on a task, but represent attitudes, preferences or strategies that a person uses in thinking. Clearly it is preferable to have a high rather than a low ability, however one cognitive style is not preferable to another.

Matlin (1983) offers an overview of the simple types

of cognitive style which have been investigated :

- Breadth of categorization : This involves a preference for a broad versus a narrow range when forming categories so that 'clothing' for one person may include jackets, trousers, hats, shoes and gloves; whereas another individual may exclude hats, shoes and gloves, categorizing clothing more narrowly.

- Conceptualizing styles : These styles involve the use of consistent stimulus properties for category formation so that for example when sorting a large number of items, one person may use the classification 'vehicle' versus 'animal' versus 'clothing', whereas another individual may sort the items in terms of attributes eg. 'red' versus 'brown' colour.

- Risk-taking versus cautiousness : This refers to an individual's consistent preference for situations with uncertain versus known outcomes.

More complex cognitive style theories tend to be bi-polar or multifactorial in nature.

2.3.1 Bipolar theories of cognitive style

The most common bipolar cognitive style investigated appears to be Field Dependence-Independence. Field-dependant individuals tend to have difficulty

separating an object from its background and prefer more global, intuitive approaches to problem-solving.

Field-independant individuals have the ability to separate an object or phenomenon from its context and are thought to prefer problem-solving approaches which emphasize detail. Field independant people are able to structure experiences in new ways. Witkin (1967) and his co-workers originally developed the concept pertaining to individual differences in perceiving objects, tested by the Embedded Figures Test. The concept has since been broadened to include social interactions and cognitive tasks.

A similar bipolar dimension of cognitive style is Huysman's (1970) Analytic vs Heuristic decision-making style. Analytic individuals reduce problems to a set of underlying relationships which are then used to choose between alternative causes of action. Heuristic individuals tend to emphasize practical solutions and frequently refer to a solution previously used for a similar problem.

Another commonly used theory of cognitive style is Conceptual Tempo (Messick, 1976). This refers to the speed and accuracy with which individuals consider alternative courses of action when solving problems. Reflective individuals take a longer time to solve problems, reflecting or carefully considering alternative hypotheses. Impulsive individuals respond in a shorter time and tend to make more errors. The instrument used to measure reflection-impulsivity is the Matching Familiar Figures Test devised by Kagan, Rosman, Day, Albert and Phillips (1964).

2.3.2 Multifactorial theories of cognitive style :

Theories which describe several dimensions of cognitive style which have been proposed include the Cognitive complexity theory proposed by Driver and Mock (1975). They describe cognitive style in terms of the number of solutions found and the amount of information used. Four styles emerge :

- Decisive : in which there is a tendency to use a minimum of data and a single solution results.

- Flexible : in which a minimum of data is used with multiple solutions resulting.

- Hieractic : in which maximum information is used with one solution resulting, and

- Integrative : in which maximum data is used leading to several solutions.

McKenney and Keen (1974) proposed dimensions which focus on modes of information gathering and evaluation. The gathering dimension has perceptive and receptive modes of acquiring information. "The perceptive person uses concepts, such as relationships and explanatory models, to search for and then filter data. Detail rather than relationships are used by receptive people who are quite sensitive to stimuli. They attempt to derive relationships from the data without imposing a preconceived coding device"

(Henderson and Nutt, 1980, pp. 372). The evaluation dimension identifies intuitive individuals versus individuals who prefer to use systematic strategies.

The intuitive individual "tends to prefer trial and error, focussing on the overall problem, and is sensitive to nonverbal cues. The systematic person prefers to structure problems using a method that increases chances of reaching a solution" (Henderson et al, 1980, pp. 372). Four decision-making styles thus arise, i.e. 'systematic-perceptive', 'systematic-receptive', 'intuitive-perceptive' and 'intuitive-receptive'.

Mason and Mitroff (1973) proposed a framework which focused on information acquisition and modes of data processing. At the one end of the information acquisition dimension are individuals who are sensation oriented and at the other end lie the intuitive individuals. The former prefer structured, detailed problems and enjoy routine precise work. The latter address problems wholistically, tend to rely on hunches and dislike routine, precise work. The second dimension which focuses on the evaluation of information identifies the feeling type of individual at one extreme who considers emotions and values, whereas the thinking individual tends to rely on impersonal logic to guide his problem-solving behaviour.

The Myers-Briggs Type Indicator (Myers, 1963) which is based on Jung's theory, proposes four bipolar dimensions which focus on the individual's preference for relying on perception or judgement; his preferred

style of perception (intuition versus sensing); style of judgement (feeling versus thinking); and whether the individual focusses on ideas (introversion) or the external world (extraversion).

Several attempts have been made to correlate the dimensions and combine the frameworks proposed by various researchers, however limited success has been achieved. Henderson et al (1980, pp. 373) concluded therefore that "the researcher must select one (framework) to carry out decision style research".

From the above descriptions it is evident that research on cognition has become far more finely tuned, focusing on specific aspects of cognition eg. cognitive style as opposed to the broad areas of language, memory, imagery; and the steps involved in cognitive processing. Cognitive style cannot, however, exist in isolation, nor can it be measured in isolation. Rather it describes how problems are solved by individuals and as such has been characteristically measured using problem-solving tasks. Matlin (1983, pp. 220) describes problem-solving as being "necessary when we want to reach a certain goal and the goal is not readily available". Furthermore Mintzberg, Raisinghani and Theoret (1976, pp. 246) describe decisions as "a specific commitment to action" and the decision process as "a set of actions and dynamic factors that begins with the identification of a stimulus for action and ends with the specific commitment to action". Thus cognitive style, problem-solving and decision-making are intimately linked.

2.3.3 Measurement of cognitive style

In order to understand the concept of cognitive style more fully it is useful to understand how differences in human information processing have been measured. Robey and Taggart (1981) provide a useful classification of studies as follows :

- Indicators of Physiological State : These studies have used physiological readings eg. brain wave readings on electroencephalograms to provide a gross indicator of the focus and type of brain activity taking place, according to the task an individual is performing (Doktor and Bloom, 1977). The disadvantages are obvious in terms of the difficulties associated with access to the required instrumentation, lack of experimenter expertise with the instruments and gaining co-operation from subjects. One advantage is said to be that brain activity is said to be the most "immediate, integrated and intrinsic measure of the construct of cognitive style" (Robey et al, 1981, pp. 376) elicited by paper and pencil tests. A further advantage is that direct monitoring of brain activity obviates the need to rely on verbal reports of cognitive processing which are likely to contain inaccuracies. Furthermore measurements of brain activity avoid confounding cognitive style with general intelligence or indicators of level of functioning.

- Observed behaviour : This approach focusses on determining actual behaviour as opposed to stated behavioural preferences. Objective measures used have included counting the number of problems solved or time taken to complete an exercise; analysis of the verbal protocols of subjects during problem-solving exercises; and monitoring information acquisition by observing eye movements. These approaches although objectively based have inherent limitations concerning replication of the studies using the same judges. Verbal protocols have obvious limitations in terms of providing a very limited measure of cognitive processes. Eye movement monitoring is an extremely laborious technique providing neither evidence that the information scanned was processed nor qualitative data regarding the processing.

- Self-description inventories : The third technique of inferring cognitive style has involved the measurement of individuals' stated preference by probing their behavioural preferences in given situations. Such measures include the Vasarhelyi questionnaire (Vasarhelyi, 1977); Minnesota questionnaire (Dickson, Senn and Chervany, 1977); Myers-Briggs Type Indicator (Myers, 1963); Kolb Learning Style Inventory (Kolb, Rubin, and McIntyre, 1979) and the Kirton Adaption-Innovation Inventory (Kirton, 1976). The main limitations of such measures relates to reliability and validity considerations. However, in the final analysis , Robey et al (1981, pp. 381) conclude that more work needs to be done to study the correla-

tions between various approaches, their reliability and validity, and links to existing and emerging theory.

2.4 PROBLEM-SOLVING AND DECISION-MAKING

Duncker (1972, pp. 28) describes problem-solving thus :"A problem arises when a living creature has a goal but does not know how this goal is to be reached. Whenever one cannot go from the given situation to the desired situation simply by action, then there has to be recourse to thinking. (By action we here understand the performance of obvious operations.) Such thinking has the task of devising some action which may mediate between the existing and the desired situations. Thus the 'solution' of a practical problem must fulfil two demands : in the first place, its realization must bring about the goal situation, and in the second place one must be able to arrive at it from the given situation simply through action".

The above approach stresses the active nature of cognitive processes in problem-solving, and is clearly applicable to all tasks and situations in which something blocks us in obtaining a successful solution. In most cases problems cannot be solved in a single step. Thus the problem-solver must devise a plan for addressing the various components of a problem, and choose strategies that are likely to provide solutions to the problem (Matlin, 1983, pp. 221). This indicates that the making of decisions, which are defined by Fowler and Fowler, (1969, pp. 214) as the act of "..... settlement of an issue,

conclusion come to or resolve made", is an intimate part of the problem-solving process, in which choices between alternate courses of action are made and a "specific commitment to action" (Mintzberg, et al, 1976, pp. 246), (often a commitment of resources), results.

2.5 CREATIVITY

Ochse (1986, pp. 7) after reviewing research into, and theories of creativity, concludes that commonality exists in defining creativity as involving "the bringing into being of something original and valuable, the 'something', 'original' and 'valuable'" referred to having very different meanings depending on their context.

2.5.1 Types of creativity :

Further to the above definition, three main categories of creativity are proposed, based on who or what is viewed as creative, rather than which particular dimensions of creativity are investigated or explained. These categories are :

- Self-actualizing creativity : in which the term 'creative' refers to a type of personality functioning and style of life which is unusual, unstereotyped or non-conforming. Measurements of personality dimensions are commonly used as criteria of creativity in this approach.

- Creative task performance : in which creativity is interpreted in terms of certain mental processes underlying performance on set problems or tasks. In these tasks, the nature of the solution or number of suggestions generated in response to a stimulus, is the measure of creativity.

- Productive creativity : in which creativity is construed as the production of something of value to society. This may be in the form of scientific, artistic, literary or technical endeavour. The criteria of creativity used include the quantity of works produced; and the recognition accorded to them by historians, experts, supervisors and/or peers in the field.

In this study, creativity as it applies to task performance is focused upon. Guilford (1967, pp. 312) proposed that problem-solving and creativity have so much in common that they are essentially the same phenomenon. He based this on the observation that there is a creative essence to all problem-solving, and that the production of creative ideas is typically carried out as a means to an end, which is the solution of a particular problem.

2.5.2 Approaches to the study of creative problem-solving :

Essentially three approaches to studying creativity in problem-solving have been used :

2.5.2.1 The creative process :

Steps have been identified (Dickinson, 1969; Nystrom, 1979), which are involved in generating unusual solutions. These include :

- Identification and Formulation of the Problem : in which the existence of a problem is identified.

- Preparation : in which the individual learns all he can about the problem, developing analogies and exploring alternative solutions.

- Incubation : during which unconscious psychological operations are assumed to take place. This is followed by

- Illumination or Insight : in which there is a sudden conception of the answer to the problem.

- Verification : occurs as the last step, in which there is objective and rational examination of the insight or solution, based on logic and reasoning.

The table which follows expands on the stages in the creative process by linking them to specific required abilities.

TABLE 2 : STAGES AND IMPORTANT REQUIREMENTS OF THE INDIVIDUAL CREATIVE PROCESS.
(Source : Adapted from Nystrom, H, 1979. Creativity and Innovation. Chichester : John Wiley and Sons.)

Stages	Requirements
Identification and Preparation.	Openness to experience. Tolerance for ambiguity. Willingness to redefine concepts. Divergent thought processes. Intuitive ability. Imagination.
Incubation	Subconscious data processing. Independence. Psychological freedom. Psychological safety.
Illumination	Ability to switch from intuitive to analytical patterns of thought.
Verification	Critical attitude. Convergent thought processes. Analytical ability. Intelligence.

2.5.2.2 Creative ability :

In this approach, creativity is viewed as an 'ability' of which some people have more than others. Examples of this view include Guilford's (1967) concept of creativity as a factorially complex component of intelligence, consisting of 120 independent types of mental activity. He developed the concept of divergent thinking to describe the 24 abilities crucial to creative thinking, and his Divergent Production Test consists of a battery of tests, each one a pure measure of one of the factors in his model of the structure of intellect.

Mednick's (1967) interpretation of creativity is the ability to perceive relationships between ideas which are remote from each other, and the ability to form new associations between these ideas which meet specific requirements, or are in some way useful. The Remote Associations Test (RAT) was developed by Mednick (1967) to measure this concept of creativity. The test includes items requiring a fourth word to be suggested which is related to the words 'charming', 'student', and 'valiant' i.e. 'prince'.

Less attention has been paid to the conscious or unconscious strategies which individuals adopt when solving problems i.e. the style of problem-solving as opposed to the level of intellectual activity involved in problem-solving, which is typified by the approaches described above.

2.5.2.3 Creative style :

Attempts to differentiate between creative style and creative level by analysing previous research have illustrated confusion (Kirton, 1987, pp. 282) in the area. In an attempt to distinguish between level and style of creativity, Kirton (1976) developed the notion of Adaptors and Innovators. Kirton's theory denies a relationship between level and style (Kirton, 1987, pp. 283), and his concept of cognitive style has been shown to be unrelated to IQ and other measures dominated by the level concept (Kirton, 1978). He postulated a continuum of cognitive style along which individuals lie, with Adaptors and Innovators at opposite ends. Adaptors and Innovators are said to "have characteristically different styles of creativity, problem-solving, and decision-making" (Kirton, 1980, pp. 213), i.e. both Adaptors and Innovators are capable of creativity, but this behaviour is manifested in different ways. Adaptors are described as "liable to initiate changes that improve current ways of doing things while adhering to consensus about the nature of the problem. Innovators, in contrast, are described as liable to generate notions leading to more radical change and in the process damage enveloping paradigms" (Carne and Kirton, 1982, pp. 32). It must be emphasized, however, that both "creative styles may be equally appropriate and effective depending on the situation" (Goldsmith, 1986, pp. 462).

The Kirton Adaption-Innovation Inventory (KAI) (Kirton, 1976), comprises three subscales : Sufficiency of Originality, Rule/Group Conformity, and Efficiency, reflecting closely related behavioural

patterns. Originality is similar to Rogers' (1959) concept of the 'creative loner' and refers to the individual's preference for proliferating ideas - Adaptors prefer the production of fewer new ideas which are seen as "sound, useful and relevant to the situation as they perceive it" (Kirton, 1987, pp. 17), while Innovators tend to prefer a proliferation of new ideas. The second factor, Rule/Group Conformity, relates to a preference for operating within rules, structures and norms - Innovators tending to score negatively and Adaptors positively on this trait. Efficiency describes a preference for thoroughness and attention to detail in Adaptors, and has a parallel with Weber's (1970) description of 'bureaucrats', who are concerned with precision, reliability and efficiency. Innovators tend to score negatively on this dimension reflecting a lack of interest in efficiency.

The model below clearly demonstrates the area of study which is being undertaken, in that the area of overlap between problem-solving. decision-making cognitive style and creativity, is being examined.

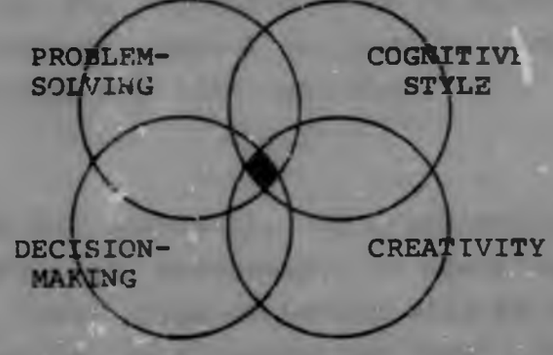


FIGURE 3 : THE AREA OF STUDY - THE OVERLAP BETWEEN COGNITIVE STYLE, PROBLEM-SOLVING, DECISION-MAKING AND CREATIVITY.

2.5.3 Relevance of creativity to business organizations :

If we define creativity as "new insight which points to better ways of dealing with reality" (Nystrom, 1979, pp. 38), and view business enterprises as being primarily concerned with concentrating on opportunities (Ferrell, 1979), the link between creativity and the successful management of opportunities is obvious. Steiner (1969, pp. 4) describes creativity as the "development, proposal and implementation of new and better solutions"; and Matherly and Goldsmith (1985, pp. 9) as "the generation of ideas that result in the improvement of the efficiency or effectiveness of a system". This approach focuses on results-orientated creativity, emphasizing that creative activities do not merely include those which are spectacularly novel. By recognizing the contribution of both types of creative personality types, balanced management teams and enhanced organizational effectiveness can result, as "greater understanding of and identification of such variations in decision-making styles may be of use to managers or administrators who need to assign responsibility for specific tasks to subordinates, or who are called upon to resolve organizational conflict" (Goldsmith, 1984, pp. 159).

In order to be successful, any organization must have a clear model of management in order to answer the question : "What type of person will be effective in our organization in a parti ular job?" The answer to this question is a template used for selection, promotion and development activities as well as the design of organizational structures. Boyatsis (1982)

studied the job competencies of managers which he described as a generic underlying characteristic of the individual, which may be evident in many forms of behaviour, but which lead to effective and in some cases superior performance. Job competencies may exist at three levels :

- The motive/trait level : which may be unconscious or conscious,

- The self-image/social level : which is conscious, and

- The skill level : which is evident in behaviour.

Cognitive style may be conceived of as a trait, which Boyatsis (1982) defines as a characteristic manner in which an individual responds to a particular set of stimuli.

Dickinson (1969, pp. 3) in examining creativity in business organizations concludes that "despite the fact that creativity has always been considered important to business activities ..... its study has ostensibly been ignored by business schools and retailing organizations"; and yet creativity in terms of cognitive style, at the trait level of job competency, is a vital asset of retail decision-makers, especially with regard to the creation and management of products which help the organization to achieve a competitive advantage.

The challenge for fashion retailers lies in the application of creative problem-solving and decision-making to the high risk and rapidly changing world of fashion trends. It is this which is the focus of this study - the cognitive style as measured on the Kirton Adaption-Innovation Test, of Buyers and Merchandisers, who perform a crucial role in the procurement and management of the fashion retailer's products. Furthermore, the relationship between cognitive style and assessed performance will be studied in the above population. This will enable the identification and analysis of significant cognitive style similarities and differences of Buyers and Merchandisers, in order to facilitate the formulation of selection and development guidelines at the trait level. Finally the self perceptions of Buyers and Merchandisers of their decision-making characteristics will be compared to cross perceptions obtained from their colleagues and line managers, in order to gain additional insight into creative problem-solving and decision-making in Buyers and Merchandisers, from the behavioural perspective. This information will be of use in the formulation of the selection and development guidelines described above.

CHAPTER 3

METHODOLOGY

3.1 AIM OF THE METHODOLOGY

The aim of the methodology was to investigate the following null hypotheses :

H1 : Position (as a Buyer or Merchandiser) is unrelated to cognitive style.

H2 : Cognitive style and job performance are unrelated.

H3 : Position (as a Buyer or Merchandiser) is unrelated to perceived decision-making characteristics.

H4 : The self and cross perceptions of the decision-making characteristics of Buyers and Merchandisers do not differ.

3.2 THEORETICAL BASIS OF THE METHODOLOGY

3.2.1 Kirton's Theory of Cognitive Style

Kirton's Adaption-Innovation Theory of cognitive style incorporates problem-solving, decision-making and creativity as extremely closely interconnected notions "or even facets of the same concept" (Kirton, 1987, pp 8). It furthermore concentrates on assessing not the level (how much) of the intellectual process, in terms of the efficiency with which problems are solved or the frequency of production of new ideas; but rather the differences between individuals in terms of which they adopt strategies to solve problems and make decisions i.e. the style (how) of the cognitive process.

Kirton postulates a continuum of cognitive style with Adaption and Innovation at opposite ends. Adaption is described as the characteristic behaviour of individuals who, when confronted with a problem, tend to use as their frame of reference, the "conventional rules, practices and perceptions of the group to which they belong" (Kirton, 1987, pp 283). This group may be a cultural, professional or working group, and if no suitable response can be gleaned from the established repertoire of conventional responses, the individual will seek to adapt such conventions in order to formulate a successful solution to the problem at hand. Innovation on the other hand, is described as the characteristic behaviour of individuals who, in response to a problem, tend to massage the problem, attempting to find new ways of approaching it, free from any of the "customary perceptions or presuppositions" which would be the conventional starting-point

for its solution" (Kirton, 1987, pp 284). The Kirton Adaption-Innovation Inventory (KAI) (Kirton, 1976), was developed by Kirton to locate individuals on the Adaption-Innovation continuum.

3.2.2 Kelly's Theory of Personality and Personal Constructs

Kelly's Theory is based on the premise that "each person contemplates in his own personal way the stream of events upon which he finds himself so swiftly borne" (Kelly, 1963, pp 3). It is this contemplation of life, in whatever way it is interpreted, that becomes reality to the individual. In order to interpret events, man attempts to view the world through transparent patterns or templates which he has created. The fit of the templates to the world is often not ideal, however, even a poor fit is of assistance to him in interpreting the world. These patterns or templates are termed constructs, which can be defined as "ways of construing the world" (Kelly, 1963, pp. 9), and which determine the individual's predictions of the future. Constructs develop through interaction with others and obtain their meaning in the context of [illegible] interaction, as well as through more general and socially determined presuppositions (Cogill, 1981). Individual construct systems are constantly reviewed through life as hypotheses are "developed, tested, modified or discarded" (Stewart and Stewart, 1981, pp 7); but they are vital, as the expectations the individual has of the world determine how he perceives it, and on the basis of these perceptions it is possible to predict how he is likely to behave (Stewart et al, 1981, pp 7). Kelly developed the Repertory Grid technique in order to enable one to examine the ways in which people can be seen as similar to some people

and yet different to others - to enable the examination of linkages which may not be easily put into words (Fransella and Bannister, 1977). Thus two people are psychologically similar because of the way in which they construe their experiences, not necessarily as a result of their actual experiences being similar. The Kelly Repertory Grid technique describes the way in which constructs may be elicited from individuals.

3.3 METHODS OF INVESTIGATION

3.3.1 Sampling Strategy

3.3.1.1 Research population and sample

The research population in this study was retail fashion Merchandise Managers, Buyers and Merchandisers. The proposed source of the subjects was three fashion retailing Chains and the size of the sample was as follows :

TABLE 3 : SOURCE OF THE RESEARCH SAMPLE

CHAIN	MERCH. MANAGER	BUYER	MERCHANDISER	TOTAL
JET	7	19	12	38
SALES HOUSE	5	13	10	28
EDGARS	13	42	41	96
TOTAL	25	74	63	162

The above three Chains were chosen as they are thought to be representative of fashion retailers, utilising both Buyers and Merchandisers in their organizational structure; the sample generated was deemed sufficiently large, to yield meaningful results; and access was likely to be permitted to the author. Thus the sampling technique used in this study falls within the non-probability category and is known as Convenience sampling, in which the accessibility of the subjects is a criterion for inclusion in the sample (Bailey, 1987, pp. 93). The degree of representation of the sample to the universe of Merchandise Managers, Buyers and Merchandisers within the fashion retailing sector, was established by requesting demographic data from fashion retailers with the same organizational structure. Demographic information was supplied by Truworths, Foschini, Markhams, Pages, Smart Centre, Pep Stores and Garlicks. Access to this information was, however, denied by the Woolworths organization.

3.3.1.2 Demographic characteristics

The following table yields a demographic analysis of the research population.

TABLE 4 : DEMOGRAPHIC ANALYSIS OF THE RESEARCH POPULATION

POSITION TITLE	GENDER		AGE				TOTAL
	M	F	18-24	25-34	35-49	50+	
MERCHANDISE MANAGERS	15	6	-	10	10	1	21
BUYERS	20	58	2	42	26	8	78
MERCHANDISERS	18	30	9	16	21	2	48
TOTAL	53	94	11	68	57	11	147

The following is the demographic analysis of the sample used :

TABLE 5 : DEMOGRAPHIC ANALYSIS OF THE RESEARCH SAMPLE

POSITION TITLE	GENDER		AGE				TOTAL
	M	F	18-24	25-34	35-49	50+	
MERCHANDISE MANAGERS	16	6	0	3	17	2	22
BUYERS	11	53	3	40	18	3	64
MERCHANDISERS	22	28	1	27	22	0	50
TOTAL	49	87	4	70	57	5	136

From the above it is evident that the sample used relates closely to the population in terms of gender and age split for all three groups, viz., Merchandise Managers, Buyers and Merchandisers.

Furthermore, the size of the research sample appears to be approximately fifty percent of the research population (excluding one organization). The representation of the research population by the research sample which is evident thus contributes towards the control of sampling error.

Permission for the inclusion of respondents from the three Chains was obtained by face to face interviews with the Human Resource Director/Manager for each Chain; followed by face to face interviews with the six Merchandise Directors concerned. The Merchandise Directors in turn either briefed their subordinates (Department Heads) directly regarding the study, following which a confirmatory letter was sent or the briefing was accomplished by means of a memorandum signed by the relevant Merchandise Director, followed by the confirmatory letter.

3.3.2 Research Instruments

Three research instruments were used :

- The Kirton Adaption-Innovation Inventory
- A perception questionnaire
- Performance appraisal ratings.

3.3.2.1 The Kirton Adaption-Innovation Inventory (KAI) :

The KAI is the measure devised by Kirton (1976) to locate respondents on the Adaption- Innovation continuum. It is a pencil-and-paper measure of cognitive style consisting of three sections : Respondent Details, in which the individual records biographical details; Guidance Notes, in which instructions for the completion of the questionnaire are given; and thirty-three questions. The questions are preceded by the phrase "How easy or difficult do you find it to present yourself, consistently, over a long period as :" followed by a list of numbered questions eg. "A person who is patient". The respondent is required to answer by placing a cross on a five point Likert type scale of Very Hard, Hard, Easy, Very Easy, which has a clear, unlabelled space in between the two central response categories for a neutral response.

The KAI was used to assess the cognitive style of Buyers and Merchandisers. It was sent by post to the subjects. The postal method was deemed acceptable as the instructions printed on the KAI response form have been found to be adequately self explanatory when presenting the inventory (Kirton, 1987, pp. 19).

3.3.2.2 Perception Questionnaire

The Kelly Repertory Grid is a technique for eliciting personal perceptions/constructs. Constructs may be elicited in a number of ways including triads, dyads, laddering, pyramid construction and self-characterization (Fransella et al, 1977). The advantage of the use of the Repertory Grid technique lies in its elimination of researcher subjectivity, in that the constructs so elicited are accurate, reliable and valid for that individual.

Bipolar constructs for use in the questionnaire were elicited in individual face-to-face interviews with a random sample chosen across the Edgars Group of three Merchandise Managers, three Buyers and three Merchandisers. Originally five of each group of subjects was randomly selected for the purpose of construct elicitation, however, after a total of nine subjects had been interviewed, the constructs appearing were common and further elicitation was deemed unnecessary. The constructs were elicited by showing each subject a piece of paper with a vertical line drawn down the centre and the columns thus created labelled "Buyer" and "Merchandiser". The interviewee then said "We know that Buyers and Merchandisers are different in some ways and similar in others. Can you tell me what you perceive as the differences between them?" Attention was paid to eliciting bipolar constructs from the subjects themselves, in order to avoid the introduction of researcher bias through the researcher formulating opposite constructs. When prompting was necessary the subjects were asked to point out differences between the groups "in terms of the way they think or make decisions".

The fifteen most common bipolar constructs were then combined into a five point Likert type questionnaire (Simon, 1986, pp. 50) for each position, with the response categories Strongly Agree, Agree, Neutral, Agree and Strongly Agree for each construct, in order to yield maximum qualitative information. Respondents were asked to complete the questionnaires in terms of their perceptions of Buyers on one page and their perceptions of Merchandisers on the second page. The order of occurrence and the poles of the constructs was randomized in order to prevent a halo effect between constructs, however the order and poles of the constructs on the two questionnaires was the same. The questionnaire length was limited to one page per position in order to reduce respondent fatigue and resistance.

The questionnaires were prefaced by an introductory page requesting biographical data, offering clear instructions regarding the completion and disposal of the questionnaire, assuring confidentiality of the results, and thanking the respondent for their participation (Simon, 1986; Bailey, 1987).

3.3 2.3 Performance Appraisal Ratings

Performance Appraisal Ratings were obtained for each respondent from their last annual appraisal held in March/April 1989. Two aspects of the appraisal were recorded :

- Problem-solving
- Overall performance

Problem-solving consists of six separate factors, each rated, separately, together with an overall problem-solving rating. The factors comprising problem-solving are described in the appraisal as follows :

- Problem/Opportunity Identification

  Identifies emerging trends or problems and opportunities for additional business, change, improvement, modification or cost reduction.

- Analytical Skills

  - Uses logical thinking in a systematic analytical process in order to arrive at realistic and practical solutions or approaches to situations.

  - Can integrate and interpret data, and do accurate projections (organizing all relevant information without oversimplification or confusion) in order to support recommendations or action.

- Judgement

  Sizes up situations objectively and critically evaluates ideas, assumptions, options and consequences before taking a decision or making a recommendation.

o Creativity

Generates imaginative solutions and innovations in work-related situations.

o Flexibility

Modifies and adapts own behaviour to reach a goal or respond to changes in the situation or environment; (includes adaptation to new processes and ideas).

A five-point rating scale is used in all appraisals, as follows :

5. Excellent : Consistently outstanding in all aspects of the job.

4. Above standard : Has consistently contributed more effectively than would be expected in major aspects of the job.

3. Satisfactory : Effective performance - making a positive and valuable contribution.

2. Below standard : Meeting the job requirements in certain aspects but improvement necessary in some areas (Review between 3 and 6 months).

1. Unacceptable : Performance consistently less than effective - not meeting requirements (Review between 1 and 3 months).

3.3.2.4 Administration

A package (see Appendices) was sent tc each Department Head consisting of

- A letter of introduction and instructions addressed to each Department Head by name.
- A Questionnaire for each Department Head, Buyer and Merchandiser,
- A KAI response sheet for each Buyer and Merchandiser
- A self-addressed envelope.

Follow-up memoranda were sent to non-respondents in order to increase the response rate.

3.3.2.5 Response Rate :

The table below presents an analysis of the responses obtained.

TABLE 6 : ANALYSIS OF THE RESPONSE RATE

CHAIN	MANAGERS NO.	%	BUYERS NO.	%	MERCH. NO.	%	TOTAL NO.	%
JET	7	100	18	95	12	100	37	97
SALES HOUSE	4	80	13	100	10	100	27	96
EDGARS	11	92	33	79	28	68	72	75
TOTAL	22	88	64	86	50	79	136	84

3.3.2.6 Scoring, Coding and Data Reduction

The standard scoring procedures were adhered to for the KAI (Kirton, 1987). The scores obtained on each factor of the KAI were recorded, together with the respondent's total KAI score on the KAI score sheet. These scores were then transcribed onto a separate summary sheet, which was attached to the back of the perception questionnaire once it had been returned, to facilitate data punching.

The responses for each bipolar construct on the questionnaires were captured on computer directly from the perception questionnaire using a numerical scale of 1 - 5, eg. the following response was scored as "4", as the cross falls in the fourth response field from the left hand side.

Make predominantly qualitative decisions				Make predominantly quantitative decisions
_____	_____	_____	X	_____
Strongly Agree	Agree	Neutral	Agree	Strongly Agree

The performance appraisal ratings for each respondent were recorded onto the summary sheet attached to the perception questionnaire on the latter's return. The capturing of data was facilitated by the above technique as all the information pertaining to each respondent was thus contained in one document. All data captured was then verified, as was the adding of the scores on the KAI test.

3.3.3 Reliability and Validity of the Research Instruments

The Kirton Adaptation-Innovation inventory has been extensively evaluated in terms of both its internal and test-re-test reliability; and its validity (Kirton, 1987).

Fransella et al (1977) argue that there is no such thing as 'the' repertory grid, and therefore it is inappropriate to examine a grid from a reliability point of view. It is preferable, they maintain, to examine whether or not the grid is an instrument which enables us to effectively enquire into the way in which people maintain or alter their constructs. The validity of a grid is similarly inappropriate to examine as the grid is not a test, but a format into which data can be placed which reveals whether or not there is a pattern to the data

The Perception Questionnaire, because it has been developed for this research study, lacks rigorous testing of reliability and validity. In the absence of an alternative suitable measure, however, the questionnaire was developed out of necessity, and its use can thus be viewed as a pilot use of the instrument. Examination of the constructs which comprise the questionnaire seems to indicate face validity of the instrument, together with the commonality of the constructs elicited during the repertory grid fortion procedure. This level of validity was deemed appropriate for the essentially humanistic type of research which was undertaken.

3.3.4 Statistical Procedures

Hypothesis 1 was tested using the Z score technique in order to establish the differences firstly between the mean overall KAI scores of Buyers, Merchandisers and the population norm. Thereafter the same technique was applied to each of the KAI factor trait scores.

Hypothesis 2 was tested using the Multiple Regression technique, to establish the correlation coefficients of the variables for the total sample, as well as for the Buyer and Merchandiser samples separately. The variables examined consisted of all the performance appraisal ratings (eight in total), the overall KAI score, and the three factor trait scores of the KAI.

Hypotheses 3 and 4 were tested using Correspondence Analysis in order to examine firstly how the perceived decision-making characteristics of Buyers and Merchandisers are related. Secondly the relationship between the self and cross-perceptions (by peers and line managers), of the decision-making profile of Buyers and Merchandisers was examined.

The results of the application of the above statistical techniques to the data obtained, is presented in the following chapter. Thereafter, in Chapter 5, the results are interpreted, fully discussed, and recommendations made on the basis of the results obtained.

3.4 LIMITATIONS OF THE METHODOLOGY

Limitations of any research study relate primarily to the existence of errors in the study. Errors vary in type and seriousness, and may be introduced at any stage of the research process. In general, "researchers deal with error by removing it if possible. If it cannot be removed, it can sometimes be estimated and corrected for. In other cases error can be assumed to be random and ignored" (Bailey, 1987, pp. 75). In any research however, the researcher should be continually on guard against the introduction of errors into the study. The table overleaf describes the types of errors which may occur and the stage of the research in which each is most likely to be made.

TABLE 7 : TYPES OF ERROR

(Source : Bailey, K.D. 1987. Methods of Social Research. New York : The Free Press.)

STAGE OF RESEARCH	TYPE OF ERROR
1. CONCEPT AND HYPOTHESIS CONSTRUCTION (INCLUDING OPERATIONAL DEFINITIONS.	LACK OF FACE VALIDITY.
2. CONSTRUCTION OF RESEARCH INSTRUMENT (QUESTIONNAIRE)	LACK OF RELIABILITY (FAULTY OR AMBIGUOUS WORDING OF QUESTIONS).
3. SAMPLING	LACK OF EXTERNAL VALIDITY (SAMPLING ERROR).
4. DATA GATHERING	ERROR DUE TO FAILURE TO CONTROL : - ENVIRONMENT. - PERSONAL CHARACTERISTICS OF RESPONDENT (FATIGUE, ETC.). - RELATIONSHIP BETWEEN RESPONDENT AND RESEARCHER. - DEFECTS OF RESEARCH INSTRUMENT (FAULTY SOUND RECORDING, EQUIPMENT FAILURE, ETC.). - INTERVIEWER MISUNDERSTOOD ANSWER.
5. CODING	INCORRECT INFORMATION RECORDED DUE TO MISSING DATA, ILLEGIBLE DATA, OR SIMPLE CODING ERROR.
6. DATA ANALYSIS	MISUSE OF STATISTICS OR FAULTY INTERPRETATION OF DATA.

Attempts have been made throughout this research to maintain a keen awareness of, and control where possible, the extent of the research error introduced.

The construction of the hypothesis in Stage One of the research was carefully done in order to avoid confusion, and promote the existence of face validity of the concepts to be tested. In order to facilitate measurement, the hypotheses were then closely linked to the research instruments selected in Stage Two, the reliability and validity of which have been addressed earlier in this chapter.

The existence of sampling error in Stage Three exists to the extent that the use of a narrow sample of the research population was necessitated by practical considerations. An attempt was however made to establish the size and demographic characteristics of the research population, as discussed earlier in this chapter. The implications of this type of error will be discussed further in Chapter Five, in relation to the interpretation of the research results.

In the data gathering Stage, the use of the postal method of testing introduced a lack of personal control over the test environment by the researcher, and a concomitant lack of standardization of the test environment. The few instances of misunderstanding of the test instructions could have been overcome by greater control over this error, had personal contact been more feasible.

Other factors which reduced the response rate include :

- Poor command of the English language.

- o Misunderstanding of the instructions.
- o Anonymous respondents.
- o Non-availability of performance appraisal data because
  - the employee had not been appraised in March/April,
  - the employee's file was not available, or
  - the appraisal form had not been returned.

During the course of Stage Five, i.e. Coding, checks were introduced to control the introduction of coding errors, and the collation of the test scores for each subject was streamlined to minimize errors.

Stage Six, which involved the application of statistical procedures to the data obtained, was completed under the guidance of an appropriate resource, in order to prevent the misuse of the statistical procedures and faulty interpretation of the data obtained.

Finally, in interpreting the results obtained and drawing conclusions, an attempt was made to identify limitations in terms of which the findings must be qualified. These limitations are outlined in Chapter Five, together with suggestions for future research to which they give rise.

CHAPTER 4

RESEARCH RESULTS

The results of the statistical analyses conducted will be presented in terms of each of the hypotheses tested, in turn.

4.1 HYPOTHESIS 1

The first hypothesis proposed that the cognitive style of Buyers and Merchandisers differs. This may be stated in the formula :

$$U_B \neq U_M$$

where U_B represents the mean KAI score for Buyers, and U_M represents the mean KAI score for Merchandisers.

The data (KAI scores) which were used to test the hypothesis were assumed to be at least of an interval nature, and were as follows :

TABLE 8 : OVERALL KAI SCORES

SAMPLE DETAILS	MEAN SCORE	STD DEVIATION	SCORE RANGE	NO. IN SAMPLE
POPULATION NORM*	95	18	45-145	562
BUYERS	104,61	11,67	73-128	64
MERCHANDISERS	98,16	13,33	70-124	50

* Kirton, 1987, pp. 36

The hypothesis was tested statistically by establishing the Z value, where the value of Z "represents the number of standard deviations a point, X, is away from the population mean, U " (Groebner and Shannon, 1981, pp. 228). This is illustrated in the figure below.

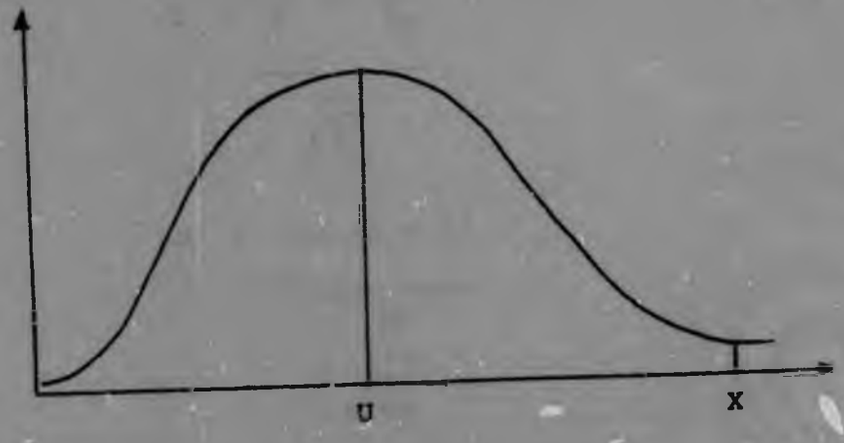


FIGURE 4 : DIAGRAMMATIC REPRESENTATION OF THE Z VALUE

The following formula was used :

$$Z = \frac{\bar{X} - U_X}{\frac{6}{\sqrt{N}}}$$

where $\bar{X}$ = mean of the sample.
U_X = mean of the population norm.
6 = standard deviation of the population norm.
N = sample size.

Firstly the Z score for the mean Buyer score against the population norm, was obtained, using the following sub-hypothesis, in order to give a broader perspective to the first hypothesis.

$$H_0 : U_B = U_X$$

$$H_A : U_B \neq U_X$$

Applying the formula :

$$Z = \frac{\bar{X} - U_X}{\frac{6}{\sqrt{N}}}$$

$$Z = \frac{104,61 - 95}{\frac{18}{\sqrt{64}}}$$

$$= 4,27$$

At the 5% level of significance Z critical = 1,96. As Z > Z critical, the null hypothesis was rejected, thus the mean KAI score for Buyers differs significantly from the mean of the population norm i.e. the cognitive style of Buyers differs from that of the population norm, on the Innovator side of the scale.

Secondly, the Z score for the mean Merchandiser score against the population norm, was obtained, again using a sub hypothesis to yield a broader perspective to Hypothesis One :

$$H_0 : U_M = U_X$$

$$H_A : U_M \neq U_X$$

Applying the formula above, a Z score of 1,24 was obtained. At the 5% level of significance, Z critical = 1,96. As Z < Z critical, the null hypothesis was accepted, thus the mean KAI score for Merchandisers does not differ significantly from the mean of the population norm, i.e. Merchandisers do not differ significantly in terms of their cognitive style from the population norm used.

Thirdly, the Z score for the mean Buyer score against the mean Merchandiser score was obtained.

$$H_0 : U_B = U_M$$

$$H_A : U_B \neq U_M$$

Applyi[illegible]e formula :

$$= \frac{X_B - U_M}{\sqrt{\frac{G_B^2}{N_B} + \frac{G_M^2}{N_M}}}$$

$$= \frac{104,61 - 98,16}{\sqrt{\frac{11,67^2}{64} + \frac{13,33^2}{50}}}$$

$$= 2,70$$

At the 5% level of significance, Z critical = 1,96. As Z > Z critical, the null hypothesis was rejected, thus the mean KAI score for Buyers and Merchandisers differs significantly i.e. they have significantly different cognitive styles.

In summary, Buyers differ from both the population norm and Merchandisers in terms of cognitive style. However, Merchandisers do not differ from the population norm in terms of cognitive style.

Lastly, analysis of the KAI factor trait scores was performed, in order to examine the differences in the scores obtained for Buyers and Merchandisers, as they relate to each other and the population norm in turn. The data used is presented overleaf :

TABLE 9 : KAI FACTOR TRAIT SCORES

	SUFFICIENCY OF ORIGINALITY			EFFICIENCY			RELE./GROUP CONFORMITY		
	MEAN SCORE	STD DEVIATION	SCORE RANGE	MEAN SCORE	STD DEVIATION	SCORE RANGE	MEAN SCORE	STD DEVIATION	SCORE RANGE
INVENTORS N = 44	47,77	6,68	29-64	18,22	4,50	9-31	38,64	6,72	26-50
MERCHANDISING N = 50	43,52	6,77	30-58	17,00	3,76	9-25	36,46	8,17	23-51
POPULATION NORM	40,78	8,88	17-62	18,82	5,59	7-33	35,39	8,56	14-56

The Z test was again used. The results of the hypotheses tested are summarized below :

TABLE 10 : RESULTS OF KAI FACTOR TRAIT HYPOTHESES TESTED

FACTOR TRAIT	HYPOTHESES	Z SCORE*	DECISION RE H_0
SUFFICIENCY OF ORIGINALITY	$H_0: U_{B,O} = U_{X,O}$ $H_A: U_{B,O} \neq U_{X,O}$	+6,30	REJECT
	$H_0: U_{M,O} = U_{X,O}$ $H_A: U_{M,O} \neq U_{X,O}$	+4,76	REJECT
	$H_0: U_{B,O} = U_{M,O}$ $H_A: U_{B,O} \neq U_{M,O}$	+1,77	ACCEPT

FACTOR TRAIT	HYPOTHESES	Z SCORE*	DECISION RE H_0
EFFICIENCY	$H_0: U_{B,E} = U_{X,E}$ $H_A: U_{B,E} \neq U_{X,E}$	-0,86	ACCEPT
	$H_0: U_{M,E} = U_{X,E}$ $H_A: U_{M,E} \neq U_{X,E}$	-2,30	REJECT
	$H_0: U_{B,E} = U_{M,E}$ $H_A: U_{B,E} \neq U_{M,E}$	1,56	ACCEPT
RULE/GROUP CONFORMITY	$H_0: U_{B,R} = U_{X,R}$ $H_A: U_{B,R} \neq U_{X,R}$	3,04	REJECT
	$H_0: U_{M,R} = U_{X,R}$ $H_A: U_{M,R} \neq U_{X,R}$	0,91	ACCEPT
	$H_0: U_{B,R} = U_{M,R}$ $H_A: U_{B,R} \neq U_{M,R}$	1,79	ACCEPT

*at 5% significance level,
/Zcrit/ = 1,96

In summary, Buyers and Merchandisers both differ from the population norm in terms of Sufficiency of Originality (O); Merchandisers differ from the population norm in terms of Efficiency (E); and Buyers differ from the population norm in terms of the Rule/Group Conformity (R) factor trait.

In conclusion, Hypothesis 1 was upheld, i.e the cognitive style of Buyers and Merchandisers differs, using the overall KAI score. However, no significant difference between the two groups could be discerned

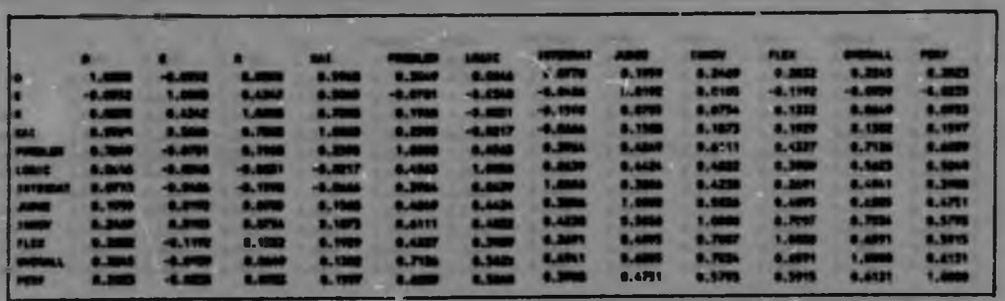
in terms of the individual factor traits; although some differences exist for both groups in terms of the individual factor traits, compared to the population norm.

4.2 HYPOTHESIS 2 :

The second hypothesis postulated that a positive correlation exists between cognitive style and successful job performance. The hypothesis was tested statistically using the Multiple Regression technique (Groebner et al, 1981), to establish the correlation coefficients of the variables for the total sample, as well as for the Buyer and Merchandiser samples individually.

Table 11 below gives the results of the Multiple Regression technique applied to the sample of Buyers.

TABLE 11 : CORRELATION COEFFICIENTS - BUYERS



N = 57

F_{crit} = 0,2306

α = 0,05

The results of the technique show that :

- The overall KAI score for Buyers is not significantly correlated with the overall performance rating; neither is it correlated with the overall problem-solving or individual problem-solving ratings apart from Problem/Opportunity Identification.

- The only factor trait score which is signiiicantly correlated with any of the performance ratings, is Sufficiency of Originality (O). which is correlated with Problem/Opportunity Identification, Innovation and Flexibility ratings.

Table 12 below gives the results of the Multiple Regression technique applied to the sample of Merchandisers.

TABLE 12 : CORRELATION COEFFICIENTS - MERCHANDISERS

	O	E	S	KAI	PROBLEM	LOGIC	INTRODUCT	ADAPT	CONFORM	FLEX	OVERALL	PERF
O	1.0000	-0.0957	0.4388	0.7538	0.6099	0.6253	0.6884	0.5148	0.0973	-0.0178	-0.0657	-0.0847
E	-0.0957	1.0000	0.4414	0.4572	0.0756	-0.0277	0.0756	2.2589	-0.0133	0.1568	0.3227	0.0401
S	0.4388	0.4414	1.0000	0.8889	0.3373	0.3295	0.3484	0.7847	0.1468	0.1254	0.3247	0.1078
KAI	0.7538	0.4572	0.8889	1.0000	0.3958	0.1738	0.1961	0.1736	0.0441	0.0758	0.3956	0.0621
PROBLEM	0.6099	0.0756	0.3373	0.3958	1.0000	0.5288	0.5097	0.0166	0.0539	0.3468	0.6229	0.6171
LOGIC	0.6253	-0.0277	0.3295	0.1738	0.5288	1.0000	0.9751	0.5053	0.4137	0.1294	0.5468	0.4998
INTRODUCT	0.6884	0.0756	0.3484	0.1961	0.5097	0.9751	1.0000	0.4882	0.4084	0.1478	0.5299	0.4732
ADAPT	0.5148	0.2589	0.7847	0.1736	0.0166	0.5053	0.4882	1.0000	0.6469	0.3188	0.7671	0.6567
CONFORM	0.0973	-0.0133	0.1468	0.0441	0.0539	0.4137	0.4084	0.6469	1.0000	0.3821	0.7229	0.5089
FLEX	-0.0178	0.1568	0.1254	0.0758	0.3468	0.1294	0.1478	0.3188	0.3821	1.0000	0.5538	0.4873
OVERALL	-0.0657	0.3227	0.3247	0.3956	0.6229	0.5468	0.5299	0.7671	0.7229	0.5538	1.0000	0.7138
PERF	-0.0847	0.0401	0.1078	0.0621	0.6171	0.4998	0.4732	0.6567	0.5089	0.4873	0.7138	1.0000

N = 42

F_{crit} = 0,2573

α = 0,05

The results of th technique show that :

- The overall KAI score for Merchandisers, is not significantly correlated with the overall performance rating; neither is it correlated with the overall or individual problem-solving ratings.

- Of the facto trait scores, only Rule/Group Conformity (R) is correlated ith Problem/Opportunity Identificatio, Logic, Integration, a Judgement.

Applying the Multiple Regression technique to the total sample yielded the corre ion coefficients presented in the table below.

TABLE 13 : CORRELATION COEFFICIENTS - TOTAL SAMPLE

	O	E	S	KAI	PROBLEM	LOGIC	INTEGRAT	JUDGE	ENERGY	FLEX	OVERALL	PERF
O	1.0000	-0.0217	0.2699	0.6752	0.1913	0.6236	0.6868	0.1004	0.1594	0.1357	0.0854	0.1165
E	-0.0217	1.0000	0.4616	0.3505	0.0272	-0.0442	-0.0432	0.6985	0.6998	-0.0148	-0.0425	0.0009
S	0.2699	0.4616	1.0000	0.6868	0.2791	0.0668	0.0895	0.1544	0.1343	0.1176	0.1328	0.0995
KAI	0.6752	0.3505	0.6868	1.0000	0.2631	0.0256	0.0834	0.1523	0.1561	0.1214	0.1066	0.1288
PROBLEM	0.1913	0.0272	0.2791	0.2631	1.0000	0.4686	0.4316	0.5443	0.6414	0.3663	0.6545	0.5889
LOGIC	0.6236	-0.0442	0.0668	0.0256	0.4686	1.0000	0.8223	0.4734	0.5239	0.3660	0.5507	0.5368
INTEGRAT	0.6868	-0.0432	0.0895	0.0834	0.4316	0.8223	1.0000	0.4353	0.4911	0.2198	0.5671	0.4177
JUDGE	0.1004	0.6985	0.1544	0.1523	0.5443	0.4734	0.4353	1.0000	0.6886	0.6599	0.7246	0.5423
ENERGY	0.1594	0.6998	0.1343	0.1561	0.6414	0.5239	0.4911	0.6886	1.0000	0.5383	0.7861	0.5342
FLEX	0.1357	-0.0148	0.1176	0.1214	0.3663	0.3660	0.2198	0.6599	0.5383	1.0000	0.6846	0.5489
OVERALL	0.0854	-0.0425	0.1328	0.1066	0.6545	0.5507	0.5671	0.7246	0.7861	0.6846	1.0000	0.6438
PERF	0.1165	0.0009	0.0995	0.1288	0.5889	0.5368	0.4177	0.5423	0.5342	0.5489	0.6438	1.0000

N = 100

F_{crit} = 0,1638

α = 0,05

The results of the technique show that :

- The overall KAI score is not correlated with the overall performance rating, nor is it correlated with the overall or individual problem-solving ratings, apart from Problem/Opportunity Identification.

- Of the three factor traits, Sufficiency of Originality (O) and Rule Group Conformity (R) are significantly correlated with Problem/Opportunity Identification. It could therefore be said that the main reason for the significance of the KAI score correlation with Problem/Opportunity Identification, is the correlation which exists between the R and O factor traits and the Problem/Opportunity Identification rating.

In summary, cognitive style is correlated with Problem/Opportunity Identification for both Buyers and Merchandisers, the significance of the correlation being determined by the R and O factor traits; however, for Buyers, the O factor is additionally correlated with Innovation and Flexibility ratings; whilst for Merchandisers the R factor is additionally correlated with Logic, Integration, and Judgement ratings.

In conclusion, Hypothesis 2 was not upheld i.e. that a positive correlation exists between cognitive style and successful job performance, although significant correlations exist between some of the individual problem-solving ratings and two of the factor trait scores.

4.3 HYPOTHESIS 3

The third hypothesis proposed that the perceived decision-making characteristics of Buyers and Merchandisers differ. The hypothesis was tested together with Hypothesis 4, using the technique of Correspondence Analysis (Hoffman and Franke, 1986), which shows how variables are related, in addition to demonstrating that a relationship exists. The result of the test of Hypothesis 3 will be presented together with that of Hypothesis 4, below.

4.4 HYPOTHESIS 4

The fourth hypothesis postulated that differences exist between peer, self and line management perceptions of the decision-making characteristics of Buyers and Merchandisers.

Correspondence Analysis yielded the data shown in Table 14 which follows.

TABLE 14 : NUMERICAL RESULTS OF CORRESPONDENCE ANALYSIS

TRACE = 0,056554

AXIS	EIGEN VALUE	% TRACE	CUM. % TRACE
1	0,052206	92,3	92,3

1 FACTOR SOLUTION

CO-ORDINATES FOR VARIABLES

VARIABLE	QUALITY	MASS	INERTIA (%)
GB	0,969	0,167	15,0
BB	0,911	0,167	15,5
MB	0,922	0,167	17,9
GM	0,922	0,167	15,6
BM	0,926	0,167	26,1
MM	0,868	0,167	9,8

VARIABLE	CO-ORD	SQ COR	CONT (%)
GB	0,222	0,969	15,7
BB	0,219	0,911	15,3
MB	0,237	0,922	17,9
GM	-0,221	0,922	15,6
BM	-0,287	0,926	26,2
MM	-0,170	0,868	9,2

CO-ORDINATES FOR OBSERVATIONS

OBSERVATION	QUALITY	MASS	INERTIA (%)
S1+	0,948	0,033	5,6
S1-	0,947	0,033	5,6
S2+	0,695	0,035	2,7
S2-	0,693	0,032	3,0
S3+	0,844	0,030	1,5
S3-	0,845	0,036	1,2
S4+	0,993	0,033	10,3
S4-	0,993	0,034	9,8
S5+	0,898	0,028	1,0
S5-	0,896	0,039	0,8
S6+	0,751	0,038	1,6
S6-	0,748	0,029	2,0
S7+	0,398	0,027	0,8
S7-	0,396	0,039	0,5
S8+	0,916	0,040	3,0
S8-	0,909	0,027	4,2
S9+	0,969	0,027	1,8
S9-	0,969	0,040	1,2
S10+	0,189	0,038	0,1
S10-	0,192	0,029	0,1
S11+	0,944	0,032	3,8
S11-	0,944	0,034	3,6

S12+	0,835	0,025	4,4
S12-	0,834	0,041	2,7
S13+	0,964	0,040	2,9
S13-	0,964	0,027	4,4
S14+	0,934	0,031	0,8
S14-	0,937	0,036	0,7
S15+	0,993	0,034	9,9
S15-	0,993	0,033	10,1

AXIS 1

OBSERVATION	CO-ORD	SQ COR	CONT (%)
S1+	-0,300	0,948	5,7
S1-	0,299	0,947	5,7
S2+	0,173	0,695	2,0
S2-	-0,192	0,693	2,2
S3+	-0,152	0,844	1,3
S3-	0,127	0,845	1,1
S4+	0,421	0,993	11,1
S4-	-0,403	0,993	10,6
S5+	0,138	0,898	1,0
S5-	-0,099	0,896	0,7
S6+	0,132	0,751	1,3
S6-	-0,172	0,748	1,6
S7+	0,081	0,398	0,3
S7-	-0,053	0,396	0,2
S8+	-0,198	0,916	3,0
S8-	0,284	0,909	4,2
S9+	0,190	0,969	1,9
S9-	-0,130	0,969	1,3
S10+	-0,014	0,189	0,0
S10-	0,018	0,192	0,0
S11+	-0,251	0,944	3,9
S11-	0,236	0,944	3,7
S12+	0,284	0,835	3,9
S12-	-0,175	0,834	2,4
S13+	-0,201	0,964	3,1
S13-	0,297	0,964	4,5
S14+	-0,121	0,934	0,9
S14-	0,103	0,937	0,7
S15+	0,407	0,993	10,7
S15-	-0,414	0,993	10,8

The results show that 92,3% of the variance in the data is explained by the first axis of the Correspondence Analysis i.e. the Buyer/Merchandiser dimension clearly defines the principle axis. This finding supports Hypothesis 3, and demonstrates a clearly de-

fined perceived difference between Buyers and Merchandisers.

The results of the Correspondence Analysis show further that Buyers and Merchandisers are perceived to differ most clearly on dimensions incorporated in Statements 4 and 15, followed by statements 1, 11, 13, and 8. Thus Buyers are perceived in terms of the following :

- Creative orientation
- Negotiation
- Qualitative decisions
- Change initiation
- Focus on impressions
- Impulsivity.

Merchandisers in contrast, are perceived in terms of the following characteristics :

- Control orientation
- Administration
- Quantitative decisions
- Control of change
- Focus on facts
- Control

Lastly, the results show a high consistency among the self, peer and line management perceptions of Buyers and Merchandisers. The figure which follows demonstrates the primary results of the Correspondence Analysis with respect to the perceived decision-making characteristics of Buyers and Merchandisers.

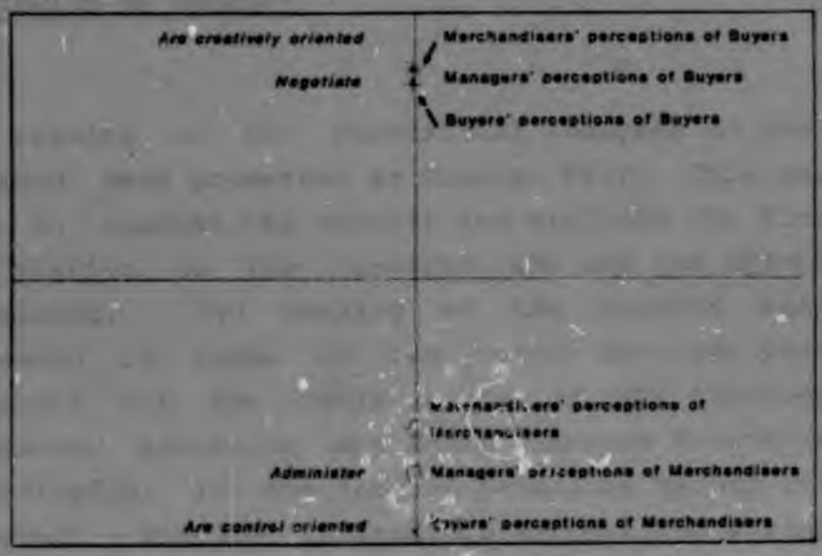


FIGURE 5 : PERCEIVED DECISION-MAKING CHARACTERISTICS OF BUYERS AND MERCHANDISERS

In conclusion, Hypothesis 3 was upheld i.e. the null hypothesis was rejected; whereas for Hypothesis 4 the null hypothesis was accepted.

The results presented in this chapter will be discussed further in Chapter 5, which interprets the meaning of the results in terms of the theory base and previous research. Furthermore the implications of the findings for Human Resource Practitioners and Line Managers in the fashion retailing sector, as well as for further research, will be examined.

CHAPTER 5

DISCUSSION OF RESULTS

The results of the statistical analyses of the data obtained were presented in Chapter Four. This chapter aims to discuss the results and evaluate the findings in relation to the research aims and the hypotheses postulated. The meaning of the results will be discussed in terms of the theory base and previous research; and the implications of the findings for management generally and Human Resource Practitioners specifically, in the fashion retailing sector will be analyzed. Finally, limitations encountered during the course of the research and their implications for the research results, will be presented, together with suggestions for future research.

5.1 HYPOTHESES RE-STATED

The hypotheses proposed at the outset of the research process were as follows :

The first hypothesis proposed that the cognitive style of Buyers and Merchandisers differs.

The second hypothesis postulated that a positive correlation exists between cognitive style and successful job performance.

The third hypothesis proposed that the perceived decision-making characteristics of Buyers and Merchandisers differ.

The fourth hypothesis postulated that differences exist between the self, peer and line manager perceptions of the decision-making characteristics of Buyers and Merchandisers.

5.2 HYPOTHESIS ONE :

This hypothesis, which proposed that the cognitive style of Buyers and Merchandisers differs, was accepted. The mean overall KAI scores of Buyers and Merchandisers were found to be significantly different and the results thus showed Buyers and Merchandisers to have different cognitive styles. The mean overall KAI scores for Buyers were located on the Innovator side of the continuum, thus they were found to have an Innovative i.e. less conforming, creative cognitive style. The mean total KAI scores for Merchandisers however, placed them closer to the population norm.

Analysis of the individual KAI factor trait scores yielded interesting results in that both Buyers and Merchandisers were found to differ from the population norm in terms of the first factor trait, Sufficiency of Originality (O). This means that both groups have a high propensity for generating original ideas. The implications of this finding may lie in the nature of the fashion retailing industry, in which risk is inherent, and a fast pace and rapid change are characteristic. The implications of this finding for Human Resource Practitioners involved in the selection of Buyers and Merchandisers is obvious. The extent to which this ability can be developed, as opposed to it being an inherent personality characteristic, is an area of debate and investigation beyond the scope of this study, however. Nevertheless the importance of

original solutions to everyday job-related problems encountered cannot be denied, and may be a determining factor in increasing sales and profits i.e. success in retailing organizations.

The second KAI factor trait investigated, Efficiency (E), showed neither significant differences between Buyers and the population norm, nor Buyers and Merchandisers. Merchandisers on the other hand, were found to differ from the population, their (E) score being lower than that of the population norm, which indicates an inclination to master detail and a preference for thoroughness. This is consistent with the nature of the Merchandisers job.

The third factor trait, Rule/Group Conformity (R) scores showed no significant difference between the mean score of Merchandisers and the population norm; and the mean of Buyers and Merchandisers. Buyers however, were found to score significantly higher than the population norm in terms of this factor. This indicates a lack of concern with conformity and a preference for the development of their own ideas. Again this is consistent with the role of Buyers in terms of their importance in developing the fashion retailer's product mix. In many cases Buyers break new ground and commit company funds to products which have not been tested in the market, six months or more ahead of the appearance of the product in stores!

5.3 HYPOTHESIS TWO

Hypothesis Two, which postulated that a positive correlation exists between cognitive style and job performance was rejected, where the overall KAI score and performance appraisal ratings were used. The

overall KAI score was however, positively correlated with ratings on Problem/Opportunity Identification for both Buyers and Merchandisers. This is an important finding in that the KAI score thus has predictive value for the problem/opportunity identification dimension, one of the most fundamental aspects, of problem-solving. The main contributory factors towards the above correlation lies in the correlation which exists between Problem/Opportunity Identification and the Sufficiency of Originality (O) factor trait for Buyers, and the Rule/Group Conformity (R) factor trait for Merchandisers. Thus for Buyers, the ability to generate numerous, novel ideas is important for the identification of problems and opportunities. For Merchandisers, on the other hand, it is their ability to operate within norms, policies and procedures which ensures the identification of problems/opportunities. Furthermore, for Buyers, innovation and flexibility are also linked to their ability to proliferate ideas. For Merchandisers, on the other hand, their ability to conform is reflected on the job in their use of logic, ability to integrate data, and the quality of their judgement on which decisions are based.

It is interesting to note that no correlation was established for either group between KAI scores and either the Analytical Skills or the Creativity appraisal ratings. One would have expected at least some correlation between KAI and Creativity especially as the test purports to measure creativity. However, the operational definition of creativity as used by each line manager and Kirton may well differ in extreme ways, at the very least reflecting Ochse's (1986, pp. 7) three categories of creativity, which makes the lack of consistency of definition almost

inevitable.

5.4 HYPOTHESIS THREE

Hypothesis Three, which proposed a perceived difference between the decision-making profile of Buyers and Merchandisers, was accepted. Clear differences in the profiles emerged, some characteristics appearing to be personality traits and yet others appearing to reflect perhaps the nature of the job. Continued successful job performance must, however, to some extent reflect a positive 'fit' between the individual's personality and preferred mode of thinking, and the demands of the job.

The six dimensions most clearly differentiating Buyers and Merchandisers can thus be analyzed in terms of whether the perception appears to originate in the personality or job performance dimension. The perception of Buyers as being creative, impulsive, initiating change and focusing on impressions; as opposed to Merchandisers being controlled, concerned with controlling change and focusing on facts, seems to indicate personality-based characteristics. On the other hand Buyers' negotiations and qualitative decisions as opposed to Merchandisers' administration and quantitative decisions appear to be constructs which are more directly job-related, indicating perhaps more indirectly, the concomitant personality or underlying characteristics.

Furthermore the perception of Buyers as creative, impulsive, initiating change, focusing on impressions and making qualitative decisions, suggests a cluster of personality characteristics which may be linked to

the Sufficiency of Originality (O) and lack of Rule/Group Conformity factor traits, and their job performance in terms of innovation and flexibility. In contrast, the perception of Merchandisers as controlled, concerned with containing change, focusing on facts and making quantitative decisions (i.e. perhaps more rationally-based), suggests a cluster of traits which may be linked to the Efficiency (E) factor trait and their use of logic, ability to integrate data and judge situations objectively, on the job.

It is evident then, that Buyers and Merchandisers are perceived as having clearly different personality characteristics, manifested in their decision-making style profile and job performance. This, again, reflects the divergent nature of the Buyer and Merchandiser roles.

5.5 HYPOTHESIS FOUR

Hypothesis Four, which proposed a difference between the self, peer and line management perceptions of the decision-making profile of Buyers and Merchandisers, was rejected. A high degree of consistency between the perceptions of the three groups was evident. This high level of consistency indicates firstly that the perceived decision-making profile differences are likely to be based on reality, where there is agreement between such a large group of individuals, reflecting three alternative perspectives. Furthermore, the consistency of the perceptions reflects on the Kelly Repertory Grid technique (Kelly, 1963) as a powerful tool for eliciting constructs.

In summary, the research results present Buyers and

the Sufficiency of Originality (O) and lack of Rule/Group Conformity factor traits, and their job performance in terms of innovation and flexibility. In contrast, the perception of Merchandisers as controlled, concerned with containing change, focusing on facts and making quantitative decisions (i.e. perhaps more rationally-based), suggests a cluster of traits which may be linked to the Efficiency (E) factor trait and their use of logic, ability to integrate data and judge situations objectively, on the job.

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In summary the research results present Buyers and

Merchandisers as distinctly different individuals, which confirms intuition. The profile of Buyers indicates the following characteritics :

- Innovative cognitive style
- High propensity for developing new ideas
- Preference for non-conformity
- Highly innovative cognitive style correlated strongly with the ability to identify problems/opportunities on the job
- High originality correlated with problem/opportunity identification, innovation and flexibility in the job-situation
- Creativity
- Impulsivity
- Change initiation
- Inclination to focus on impressions
- Tendency to negotiate
- Propensity for qualitatively-based decisions

The Merchandiser profile on the other hand indicates :

- Cognitive style closely approximating the population norm
- High propensity for developing original ideas

- High concern with detail, thoroughness and efficiency
- Cognitive style correlated with the ability to identify problems/opportunities in the job situation
- High conformity to rules and norms, correlated with job-related problem/opportunity identification, logic, ability to integrate data and use judgement in evaluating circumstances
- Controlled demeanour
- Containment of change
- Inclination to focus on facts
- Tendency to administer
- Propensity for quantitatively-based decisions

5.6 INTERPRETATION OF THE FINDINGS IN TERMS OF THE THEORY BASE

It is evident from the discussion in Chapter Two regarding the field of cognition, that it is vast in scope. It is therefore appropriate here, to discuss the research findings in relation only to the identified area of study, viz the overlap between cognitive style, problem-solving, decision-making and creativity.

The research findings strongly confirm the close link between the above fields of study. This can be

clearly seen in the distinctly different patterns which emerge for Buyers and Merchandisers in terms of cognitive style, its correlation with performance-related problem-solving dimensions, and the decision-making profiles which emerge. Furthermore the inter-relationship between the dimensions within the patterns which emerge, between cognitive style traits, job-related problem-solving and decision-making characteristics, emphasizes this link and suggests a strong basis for the link in reality.

Kirton's (1980) suggestion of a close link between creativity, problem-solving and decision-making is thus confirmed by the research findings, which additionally demonstrate the relevance of cognitive style to job performance in terms of problem-solving. In addition, the ability to develop original ideas which he suggests may be present in both Adaptors and Innovators but manifested in different ways, is also confirmed by the high originality scores of both Buyers and Merchandisers; while their decision-making profiles differ. This confirms Kirton's (1987) assertion that neither cognitive style is preferable, but rather that the effectiveness of a cognitive style is determined by context i.e. the nature of the job or problems faced.

The significance of the findings in terms of the Kelly Repertory Grid Technique have been outlined earlier. The results however also demonstrate a link between the KAI factor traits and the decision-making profiles, both of which are perception-based (the KAI being a self-description inventory, and the decision-making profile being based on the Kelly Repertory Grid Technique of construct elicitation). This confirms the legitimacy of eliciting personality characteristics by means of perceptions, and thus

endorses Kelly's Theory of constructs.

5.7 INTERPRETATION OF THE FINDINGS IN TERMS OF PREVIOUS RESEARCH

Ettenson et al (1986, pp. 45) commented on the "lack of empirical work in the area of retail buyer decision-making", despite the critical role which Buyers play in the organizations marketing system. They suggested three reasons for this apparent void :

- Difficulty in gaining access to retail Buyers
- The popular perception that the buying of fashion merchandise is a mysterious, intuitive process
- The lack of a conceptual framework or theory base specific to retail buying, to guide research.

The paucity of empirical research in the field was confirmed by the author, using an on-line literature search facility for relevant work completed in the past few years. This research must thus be viewed as contributing, together with studies by Ettenson et al (1986), and Martin (1973), to the preliminary compilation of a conceptual framework of retail Buyer decision-making, by providing some empirical findings, which hopefully may act as a catalyst to further research in the field. Martin (1973) agrees with Ettenson et al (1986) in emphasizing the importance of the role of the Buyer in the sales success of the organization, due to the fact that they

determine the retailer's product mix.

Unfortunately neither Martin's (1973) nor Etterson et al's (1986) findings can be compared directly to those of the present study, due to the studies not addressing easily comparable areas. The former study did however emphasize that sales growth is correlated with the Buyer's perception that a high level of discretion was granted to them in their decision-making; a tendency to show a leadership role in adopting new trends; aggression in negotiating more favourable terms with Suppliers; and greater self-confidence, than Buyers associated with organizations having a poor sales growth. The high level of discretion and propensity for adopting new trends may correspond with the present study's findings regarding Buyers' Innovative cognitive style, their high originality trait scores and lack of concern with conformity, together with the correlation between originality and job-related innovation and flexibility ratings. Furthermore the perceived decision-making profile of Buyers in terms of creativity, change initiation, and negotiating also can be linked to Martin's findings.

Ettenson et al (1986) studied the judgement strategies of retail Buyers, Assistant Buyers and fashion merchandising students when evaluating the saleability of an item of fashion merchandise. Their findings indicated firstly that quantitative, not qualitative information dominated the saleability judgements of Buyers. This seems contradictory to the findings of the present research which indicates that Buyers make predominantly qualitatively-based decisions, however the terms 'qualitative' and 'quantitative' were not

defined in the present study, whereas Ettenson et al offered three specific quantitative subjects (price, selling history and amount of funds offered by the Supplier towards promotions); and five qualitative cues (fibre content, cut, colour range, brand, and country of origin). The relevance of the particular cues offered to the Buyer role studied in this study can be questioned, and the small number of cues is a decided limitation of the Ettenson et al study. Furthermore, the relative importance of quantitative and qualitative cues may well differ when more advanced fashion-items are under consideration. This was acknowledged by Ettenson et al. In addition, the nature of quantitative decisions made by Buyers differs widely from that of Merchandisers - these differences were not addressed by Ettenson et al. Lastly, the role of Buyers was not defined and it is not clear whether the organizational structure studied included Merchandisers.

Ettenson et al (1986) furthermore found differences between the three groups in terms of their use of the individual saleability cues, but more importantly found that retail Buyers evaluate merchandise saleability systematically. This suggests a consistency in the judgements which develops with experience, and although at first glance it may seem to contradict the present study's finding that Buyers are highly innovative thinkers, this innovation may well refer more to the development or adoption of novel ideas (new fashions) as opposed to judgements relating to more basic merchandise. In any event, the systematic nature of the experienced Buyers' decisions suggests that the evaluation of merchandise "may be less mysterious than previously believed" (Ettenson et al, 1986, pp. 59), consequently lessening one of the perceived barriers to the study of retail fashion

Buyer decision-making.

Finally, the finding that Buyers have high KAI scores (mean 104,6) is consistent with Kirton's (1987, pp.15) finding that Research and Development managers in the U.K. and U.S.A. have high KAI scores (101-103), consistent with their innovative role in the organization.

5.8 IMPLICATIONS OF THE FINDINGS FOR HUMAN RESOURCE PRACTITIONERS

One of the aims of this study was to investigate the cognitive correlates of problem-solving and decision-making in fashion Buyers and Merchandisers. The rationale for this investigation lies in the need to develop selection and development guidelines for both groups of personnel, for use by Human Resource Practitioners in the industry. This has certainly been achieved, although the findings now need to be integrated into operational strategies for everyday use.

The implications of the findings for Human Resource Practitioners include the following :

1. The KAI test is a useful tool for assessing cognitive style, Innovator scores being of significance in identifying Buyers.

2. The Originality factor trait score itself has a predictive value for identifying both Buyers and Merchandisers, while the Efficiency and Rule/Group Conformity scores have predictive value for Merchandisers and Buyers respectively.

3. The overall KAI score has a predictive value for job-related problem/opportunity identification in

both groups, based primarily on the Originality score in the case of Buyers and the Rule/Group Conformity score in the case of Merchandisers; with further links between the Originality score and other aspects of job-related problem-solving for each group.

It therefore seems that the KAI would be a useful tool for inclusion in a battery of tests for assessing prospective Buyers and Merchandisers. Kirton (1987) furthermore suggests that cognitive style is stable over time and that although individuals can modify their behaviour from a preferred mode, when the gap between the preferred and expected modes is large, and such changes expected frequently and over a prolonged period, stress results. This has significance in initial hiring and placement decisions. It is additionally significant to consider KAI test scores in making placement decisions, in that the selection of complementary individuals to work together in a Buyer-Merchandiser work team is likely to produce greater effectiveness. The caveat here however, is that both team members would need the maturity and insight to be able to accept and cope with the other member of the team, because of the lack of natural collaboration which occurs, due to the nature of the cross perceptions of Adaptors and Innovators. Table 15, which follows, enumerates the opposing perceptions of both groups together with the implications for interpersonal co-operation. One advantage however, of the finding that Merchandisers tend to be middle scorers is that they are more likely to mediate between highly innovative Buyers and have the ability to compromise more easily, thus avoiding conflict with their Buyer colleagues.

TABLE 15 : CHARACTERISTICS OF ADAPTORS AND INNOVATORS

(Source : Kirton, M.J. 1987. Kirton Adaption-Innovation Inventory Manual. Hatfield : Occupational Research Centre.)

IMPLICATIONS	HIGH ADAPTORS	HIGH INNOVATORS
For Problem Definition	Tend to accept the problems as defined with any generally agreed constraints. Early resolution of problems, limiting disruption and immediate increased efficiency are important considerations.	Tend to reject the generally accepted perception of problems and redefine them. Their view of the problem may be hard to get across. They seem less concerned with immediate efficiency, looking to possible long-term gains.
For Solution Generation	Adaptors generally generate a few novel, creative, relevant and acceptable solutions aimed at 'doing things better'.	Innovators produce numerous ideas which may not appear relevant or be acceptable to others. Such a pool often contains solutions which result in 'doing things differently'.
For Policies	Prefer well-established, structured situations. Best at incorporating new data or events into existing structures or policies.	Prefer unstructured situations. Use new data as opportunities to set new structures or policies accepting the greater attendant risk.
For Organizational "Fit"	Essential for the ongoing functions, but in times of unexpected changes may have some difficulty moving out of their established role.	Essential in times of change or crisis, but may have trouble applying themselves to ongoing organizational demands.
For Potential Creativity	The Kirton Inventory is a measure of style but not level or capacity of creative problem solving. Adaptors and innovators are both capable of generating original, creative solutions, but which reflect their different overall approaches to problem solving.	
For Collaboration	Adaptors and Innovators do not readily get on, especially if they are extreme scorers. Middle scorers have the disadvantage that they do not easily reach the heights of adaption or innovation as do extreme scorers. This conversely can be advantageous. Where their score is intermediate between more extreme scorers, they can more easily act as "bridgers", getting the best (if skilful) out of clashing more extreme scorers and helping them to form a consensus.	
For Perceived Behaviour	Seen by Innovators: as sound, conforming, safe, predictable, inflexible, wedded to the system, intolerant of ambiguity.	Seen by Adaptors: as unsound, impractical, risky, abrasive threatening the established system and creating dissonance.

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For Solution Generation	Adaptors generally generate a few novel, creative, relevant and acceptable solutions aimed at 'doing things better'.	Innovators produce numerous ideas which may not appear relevant or be acceptable to others. Such a pool often contains solutions which result in 'doing things differently'.
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For Perceived Behaviour	**Seen by Innovators:** as sound, conforming, safe, predictable, inflexible, wedded to the system, intolerant of ambiguity.	**Seen by Adaptors:** as unsound, impractical, risky, abrasive threatening the established system and creating dissonance.

4. The clearly discerned differences in the decision-making profile of Buyers and Merchandisers, based on the questionnaire results, could be of use if the five bipolar dimensions which emerged could be combined into an appropriate self-descriptive questionnaire. This again, could be used in making selection and placement decisions.

From the training and development perspective the research findings point to innate personality based differences between Buyers and Merchandisers rather than abilities which may be developed.

From the point of view of selecting and developing trainees, the above discussion also applies.

From a training point of view, it is clear however, that some of the skills which Buyers and Merchandisers require eg. negotiation skills; administrative and analytical skills (qualitative and quantitatively based as required), may be addressed through training programmes; provided that the individual has an appropriate cognitive style. Finally, the exposure of Buyers and Merchandisers to exercises aimed at developing insight into and acceptance of other team members' strengths and weaknesses, would facilitate greater team effectiveness.

5.9 LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

The research findings must be qualified in terms of several important limitations. Firstly, the Buyers and Merchandisers selected were all from one organization. A larger more representative sample of

subjects from other fashion retailers would have lent greater generalizability to the results. Furthermore, Buyers from organizations having different organizational structures may have yielded different results. In addition, Buyers and Merchandisers in non-fashion areas were not studied. Future studies might well address some of these issues.

A second limitation lies in the use of KAI norm scores based on a British sample. The development of South African based norms could be the focus of future research.

Thirdly, the results must be qualified in terms of the use of one measure of cognitive style. Further research to correlate the findings with other measures of cognitive style and personality is suggested as a fruitful area for investigation.

The fourth limitation concerns the use of the perception questionnaire which had not been standardized, as a research instrument. Although the resultant perceptions obtained coincide with dimensions associated with the KAI, the performance appraisal data, and intuition, lack of reliability and validity data introduces a definite limitation to the results. Further work is necessary to establish reliability and validity considerations, if use of the questionnaire is to be extended.

Finally, the subjectivity of the performance appraisal ratings, although not easy to control, must be recognized as an important limitation of the study. Future research is suggested which utilises standardized job-related tasks on which all subjects are rated by objective means or alternatively a panel or group of raters, selected and trained to minimize inter-rater variation.

The results and discussion contained in Chapters Four and Five will be briefly summarised in the next Chapter, prior to the conclusion being drawn.

CHAPTER 6

CONCLUSION

The aim of this concluding chapter is to examine whether the objectives of this research have been met and summarize the results of the hypotheses tested.

The first objective was to establish whether or not a difference can be measured in the cognitive style of Buyers and Merchandisers. This objective was met by means of testing the first hypothesis, which proposed that the cognitive style of Buyers and Merchandisers differ. The results show clearly that Buyers tend to have a highly Innovative cognitive style while Merchandisers have a cognitive style similar to the population norm.

The second objective was to investigate the relationship between cognitive style and performance. This objective was met by means of testing the second hypothesis, which postulated a positive correlation between cognitive style and successful job performance. This hypothesis was rejected in terms of the overall cognitive style and general performance measures, however overall cognitive style is correlated with problem-solving, and opportunity identification for both Buyers and Merchandisers. Furthermore, for Buyers, their originality is correlated with several of the performance-related problem-solving dimensions, whereas for Merchandisers, rule/group conformity is closely associated with several aspects of the job-related problem-solving.

The third objective was to establish the perceptions

of job holders, colleagues and direct line managers of the differences in terms of the decision-making characteristics of Buyers and Merchandisers. The third hypothesis, which was accepted, met this objective and showed clear differences between the decision-making profiles of Buyers and Merchandisers.

The fourth objective was to investigate the relationship between the self, peer and line managers' perceptions of the decision-making characteristics of Buyers and Merchandisers. The fourth hypothesis proposed differences between the self and cross perceptions of Buyers and Merchandisers, but was rejected, when consistent differences were found to exist between the perceptions by the three groups tested, of the decision-making profiles.

In conclusion, the need for this research which was stated in the problem definition, has been met, in that the findings are of use in the selection, placement and training of Buyers and Merchandisers, to meet the future manpower needs of fashion retailers. Furthermore, the study has contributed towards the limited body of knowledge in the area of decision-making in fashion retailing, the critical need for which has been emphasized by researchers such as Ettenson et al (1986) and Martin (1973).

APPENDICES

JET PERSONNEL
CROWNWOOD
24 February 1989

Dear

DECISION-MAKING STYLE IN BUYERS AND MERCHANDISERS - MASTERS RESEARCH STUDY.

I am presently conducting research on the relationship between the different methods of problem-solving used by Buyers and Merchandisers in fashion retailing, and their performance. The results of this study should have considerable benefit in terms of providing information of use in the selection and development of Buyers and Merchandisers.

In terms of the sampling strategy, staff within your area of responsibility have been selected for inclusion in the study, in order to provide a sample of sufficient size to ensure the significance of the results.

In return for the time afforded me in order to gather the necessary data, I shall be providing each department head with a short report on the main findings of the study.

The study involves the completion of two questionnaires by each of the Buyers and Merchandisers within your department, which should take no longer than 30 minutes in total. The results of the questionnaires will remain confidential.

has agreed to the broad principle of the participation of your staff in the study, and I will be forwarding further details to you in the near future.

Your co-operation in this regard is appreciated.

MURIEL ROAKE

MEMORANDUM

TO :

FROM :

DATE :

DECISION-MAKING STYLE OF BUYERS AND MERCHANDISERS - MASTERS STUDY

Muriel Roake is currently undertaking a study into the decision - making style of Buyers and Merchandisers throughout the Group. This serves to confirm that I have given my permission for Buyers and Merchandisers within your department to be included in the study, to which end she will liaise directly with you.

MERCHANDISE DIRECTOR

Jet Personnel
Crownwood

15 May 1989

Dear

DECISION-MAKING STYLE IN BUYERS AND MERCHANDISERS - MASTERS RESEARCH STUDY

I attach herewith the questionnaires designed to measure the decision-making style of Buyers and Merchandisers and perceptions thereof, for the above study.

Please would you ensure that each Buyer and Merchandiser* within your department completes both of the questionnaires, i.e.:

1. A KAI response sheet, and
2. The "Questionnaire".

} ± 10 minutes

Furthermore, would you as department head please complete the "Questionnaire" only.

The instructions for each questionnaire are self-explanatory, however should you or your staff have any questions in this regard, please do not hesitate to contact me at 496-1800 Ext. 175.

Please would you ensure the return of all the completed questionnaires for your department in the self-addressed envelope by 2 June 1989.

Your participation in this study is greatly appreciated.

Yours sincerely

MURIEL ROAKE (MRS)

*i.e. Buyers, Senior Buyers, Specialist Buyers, Merchandisers, Senior Merchandisers, DMCs and Buyer/Merchandisers.

Respondent Details

Date _____

Name _____

Age _____ Sex _____

Occupation Title _____

_____

Department _____

Educational Status _____

_____

Other _____

_____

KAI RESPONSE SHEET

IMPORTANT

- **Complete 'Respondent Details'**
- **Answer all questions**
- **Use ball point pen and press hard**

Guidance Notes

We all find it necessary to present a particular image of ourselves consistently over a long period. In some cases this proves easy as we are like this: sometimes it is very difficult as we are not like this at all.

For instance, some of us are early risers. It is easy for such people to present the image of good timekeepers at work. So if you are an early riser and were asked how easy or hard it is for you to present an image at work of a good timekeeper, you would put a clear cross on the scale below on or near 'Very Easy'.

Very Hard	*Hard*	*Easy*	*Very Easy*
		X	

If you are the extreme other sort, you would find being on time every morning for a long period difficult, and you may well put a cross on the scale at the 'Very Hard' end.

Please indicate the degree of difficulty (or ease) that would be required for you to maintain the image, consistently for a long time, that is asked of you by each item below.

How easy or difficult do you find it to present yourself, consistently, over a long period as:

	Very Hard	*Hard*	*Easy*	*Very Easy*
1) A PERSON WHO IS PATIENT				
2) A PERSON WHO CONFORMS				
3) A PERSON WHO WHEN STUCK WILL ALWAYS THINK OF SOMETHING				
4) A PERSON WHO ENJOYS THE DETAILED WORK				
5) A PERSON WHO WOULD SOONER CREATE SOMETHING THAN IMPROVE IT				
6) A PERSON WHO IS PRUDENT WHEN DEALING WITH AUTHORITY OR GENERAL OPINION				
7) A PERSON WHO NEVER ACTS WITHOUT PROPER AUTHORITY				
8) A PERSON WHO NEVER SEEKS TO BEND (MUCH LESS BREAK) THE RULES				
9) A PERSON WHO LIKES BOSSES AND WORK PATTERNS WHICH ARE CONSISTENT				
10) A PERSON WHO HOLDS BACK IDEAS UNTIL THEY ARE OBVIOUSLY NEEDED				
11) A PERSON WHO HAS FRESH PERSPECTIVES ON OLD PROBLEMS				
12) A PERSON WHO LIKES TO VARY SET ROUTINES AT A MOMENT'S NOTICE				
13) A PERSON WHO PREFERS CHANGES TO OCCUR GRADUALLY				
14) A PERSON WHO IS THOROUGH				
15) A PERSON WHO IS A STEADY PLODDER				
16) A PERSON WHO COPES WITH SEVERAL NEW IDEAS AND PROBLEMS AT THE SAME TIME				
17) A PERSON WHO IS CONSISTENT				
18) A PERSON WHO IS ABLE TO STAND OUT IN DISAGREEMENT ALONE AGAINST A GROUP OF EQUALS AND SENIORS				
19) A PERSON WHO IS STIMULATING				
20) A PERSON WHO READILY AGREES WITH THE TEAM AT WORK				
21) A PERSON WHO HAS ORIGINAL IDEAS				
22) A PERSON WHO MASTERS ALL DETAILS PAINSTAKINGLY				
23) A PERSON WHO PROLIFERATES IDEAS				
24) A PERSON WHO PREFERS TO WORK ON ONE PROBLEM AT A TIME				
25) A PERSON WHO IS METHODICAL AND SYSTEMATIC				
26) A PERSON WHO OFTEN RISKS DOING THINGS DIFFERENTLY				
27) A PERSON WHO WORKS WITHOUT DEVIATION IN A PRESCRIBED WAY				
28) A PERSON WHO LIKES TO IMPOSE STRICT ORDER ON MATTERS WITHIN OWN CONTROL				
29) A PERSON WHO LIKES THE PROTECTION OF PRECISE INSTRUCTIONS				
30) A PERSON WHO FITS READILY INTO THE SYSTEM				
31) A PERSON WHO NEEDS THE STIMULATION OF FREQUENT CHANGE				
32) A PERSON WHO PREFERS COLLEAGUES WHO NEVER ROCK THE BOAT				
33) A PERSON WHO IS PREDICTABLE				

PLEASE CHECK THAT YOU HAVE ANSWERED ALL 33 QUESTIONS

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25 x 10

Respondent Details

Date _____

Name _____

Age _____ Sex _____

Occupation/Title _____

_____

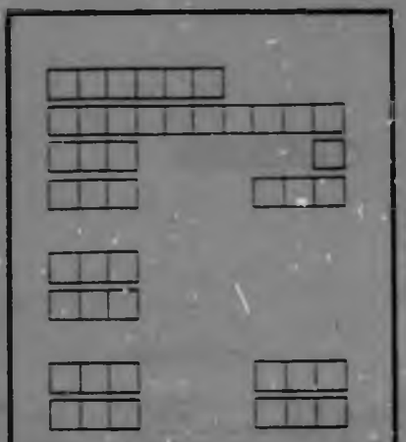
Department _____

Educational Status _____

_____

Other _____

_____



KAI INSTRUCTIONS TO SCORER

- Enter scores in blank space of appropriate line
- Missing items score as '3'; three or more missing items – discard
- Responses exactly on dividing lines – score towards centre

	O	E	R	DO NOT SCORE				
1.	■	■	■	5	4	3	2	1
2.	■	■		1	2	3	4	5
3.		■	■	5	4	3	2	1
4.	■		■	1	2	3	4	5
5.		■	■	5	4	3	2	1
6.	■	■		5	4	3	2	1
7.	■	■		5	4	3	2	1
8.	■	■		5	4	3	2	1
9.	■	■		5	4	3	2	1
10.	■	■		5	4	3	2	1
11.		■	■	1	2	3	4	5
12.		■	■	1	2	3	4	5
13.		■	■	5	4	3	2	1
14.	■		■	5	4	3	2	1
15.	■		■	5	4	3	2	1
16.		■	■	1	2	3	4	5
17.	■		■	5	4	3	2	1
18.		■	■	1	2	3	4	5
19.		■	■	1	2	3	4	5
20.	■	■		5	4	3	2	1
21.		■	■	1	2	3	4	5
22.	■		■	5	4	3	2	1
23.		■	■	1	2	3	4	5
24.		■	■	5	4	3	2	1
25.	■		■	5	4	3	2	1
26.		■	■	1	2	3	4	5
27.	■	■		5	4	3	2	1
28.	■		■	5	4	3	2	1
29.	■	■		5	4	3	2	1
30.	■	■		5	4	3	2	1
31.		■	■	1	2	3	4	5
32.	■	■		5	4	3	2	1
33.	■	■		5	4	3	2	1
						TOTAL		

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form ref EL85S

QUESTIONNAIRE

PERSONAL DETAILS:

NAME: .....

AGE		SEX		POSITION		CHAIN	
18-24	4-1	Female	5-1	DMM	6-1	JET	7-1
25-34	4-2	Male	5-2	Buyer	6-2	SALES HOUSE	7-2
35-49	4-3			DMC/Merch.	6-3	EDGARS	7-3
50+	4-4						

INSTRUCTIONS

This questionnaire is designed in the form of pairs of words or phrases which have opposite meanings. These words or phrases represent the most common decision-making attributes of Buyers and Merchandisers established in interviews with Divisional Merchandise Managers, Buyers and Merchandisers throughout the Group.

The words or phrases are placed at each end of a continuum, which is divided into five equal sections. Below is a description of what each section represents.

Word/Phrase A				Word/Phrase B
Strongly Agree	Agree	Neutral	Agree	Strongly Agree

You are required to place an "X" above one of the spaces, representing <u>your</u> perception of the words/phrases relative to Buyers or Merchandisers as required on each page of the questionnaire. <u>Do not place more than one cross in any single line</u>.

E.g. if you are of the opinion that height is a distinguishing factor of Buyers, you would mark your questionnaire thus:

Tall				Short
	X			
Strongly Agree	Agree	Neutral	Agree	Strongly Agree

Please note that the results of this questionnaire will remain confidential.

This questionnaire should be completed and returned to your department head without delay.

Your co-operation is greatly appreciated.

Below please indicate how you view BUYERS:

					OFFICE USE	
Make predominantly qualitative decisions				Make predominantly quantitative decisions		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	8	
Are cautious				Feel comfortable with risk decisions		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	9	
Deal with what might happen				Deal with what has happened		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	10	
Are control oriented				Are creatively oriented		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	11	
Deal with tangibles				Deal with intangibles		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	12	
Focus on the past				Focus on the future		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	13	
Are objectively oriented				Are subjectively oriented		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	14	
Are impulsive				Are controlled		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	15	
Operate within rules/conventions				Set aside conventions/rules		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	16	
Focus broadly				Focus on detail		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	17	
Initiate change				Controls change		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	18	
Are logical and analytical				Are impulsive		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	19	
Are impressions focussed				Are facts focussed		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	20	
Focus on what strategy (what to do)				Focus on tactics (how to do)		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	21	
Administer				Negotiate		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	22	

Below please indicate how you view MERCHANDISERS:

					OFFICE USE	
Make predominantly qualitative decisions				Make predominantly quantitative decisions		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	23	
Are cautious				Feel comfortable with risk decisions		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	24	
Deal with what might happen				Deal with what has happened		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	25	
Are control oriented				Are creatively oriented		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	26	
Deal with tangibles				Deal with intangibles		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	27	
Focus on the past				Focus on the future		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	28	
Are objectively oriented				Are subjectively oriented		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	29	
Are impulsive				Are controlled		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	30	
Operate within rules/conventions				Set aside conventions/rules		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	31	
Focus broadly				Focus on detail		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	32	
Initiate change				Controls change		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	33	
Are logical and analytical				Are impulsive		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	34	
Are impressions focussed				Are facts focussed		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	35	
Focus on what strategy (what to do)				Focus on tactics (how to do)		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	36	
Administer				Negotiate		
Strongly Agree	Agree	Neutral	Agree	Strongly Agree	37	

KAI RESULT:

O	38			39
E	40			41
R	42			43
TOTAL	44			46
		45		

PROBLEM-SOLVING RATINGS:

PROBLEM/OPPORTUNITY IDENTIFICATION		47
ANALYTICAL SKILLS - LOGIC		48
- INTEGRATION		49
JUDGEMENT		50
CREATIVITY - INNOVATION		51
- SET ASIDE CONVENTION	X	52
FLEXIBILITY		53
OVERALL		54

OVERALL PERFORMANCE RATING:

	55

MEMORANDUM

TO: FROM: M. Roake

DATE: 14 June 1989 REF:

DECISION-MAKING STYLE IN BUYERS AND MERCHANDISERS - MASTERS DISSERTATION

Questionnaires for staff within your department to be used in the above study, were distributed in May and were due to be returned to me by 2 June 1989. These have, however, not yet been received and are consequently delaying the statistical analysis of the Group's data.

As the results of this study will be important in developing selection and development guidelines for Buyers and Merchandisers for use throughout the Group, I would appreciate it if you could afford this matter your urgent attention.

M. Roake.

M. ROAKE (MRS)

MEMORANDUM

TO :

FROM : M ROAKE

DATE : 15 June 1989

DECISION-MAKING STYLE IN BUYERS AND MERCHANDISERS : MASTERS DISSERTATION

Attached please find another copy of the questionnaire to be completed by D.M.M.s regarding their perceptions of the decision-making style of Buyers and Merchandisers.

I do not seem to have received a completed copy from you, and as your views are vital to providing a comprehensive picture of the Group, I would appreciate it if you would complete and return the attached to me as soon as possible.

It should not take you more than five minutes, and as the results will be of use to the Group in the development of guidelines for the selection and development of Buyers and Merchandisers, your participation would be appreciated.

MURIEL ROAKE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

The Graduate School of Business Administration
2 St David's Place, Parktown, Johannesburg, 2193 South Africa

P O Box 98, WITS
2050 South Africa
'Embark'
4-27125 SA
(011) 643-6641

28 July 1989

Dear

I am currently reading towards a Masters degree in the area of Human Resources Management. As part of the research component, I am undertaking a study on the relationship between cognitive style and assessed performance in Fashion Buyers and Merchandisers. In order to assess the relationship of the sample selected to the total population of Fashion Buyers and Merchandisers, I would be most grateful if you could supply me with the following demographic statistics pertaining to your organisation.

POSITION	GENDER		AGE (YEARS)				TOTAL
	MALE	FEMALE	18-24	25-34	35-49	50+	
Merchandise Manager							
Buyer							
Merchandi-ser							
TOTAL							

I would appreciate it if you could return the above information in the enclosed self addressed envelope by August 16, 1989.

Your participation in this study is greatly appreciated.

M ROAKE
RESEARCHER

J OWENS
SENIOR LECTURER,
HUMAN RESOURCE MANAGEMENT
[RESEARCH SUPERVISOR]

The University of the Witwatersrand rejects racism and racial segregation. It is committed to non-discrimination particularly in the constitution of its student body, in the selection and promotion of its staff, and in its administration.

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

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P O Box 98, WITS
2050 South Africa
Embark
4-27125 SA
(011) 643-6641 .
Fax (011) 643-2336

9 August 1989

Dear

MASTERS RESEARCH STUDY
DECISION-MAKING STYLE IN BUYERS AND MERCHANDISERS

On behalf of the Business School we would like to thank you and your staff for your co-operation in the above study. It is through the participation of members of the business community that we can ensure that research conducted at the School remains relevant to the commercial sectors which we service.

Yours sincerely

J H OWENS
Senior Lecturer, Human Resource Management
Research Supervisor

M ROAKE
Researcher

The University of the Witwatersrand rejects racism and racial segregation. It is committed to non-discrimination particularly in the constitution of its student body, in the selection and promotion of its staff, and in its administration.

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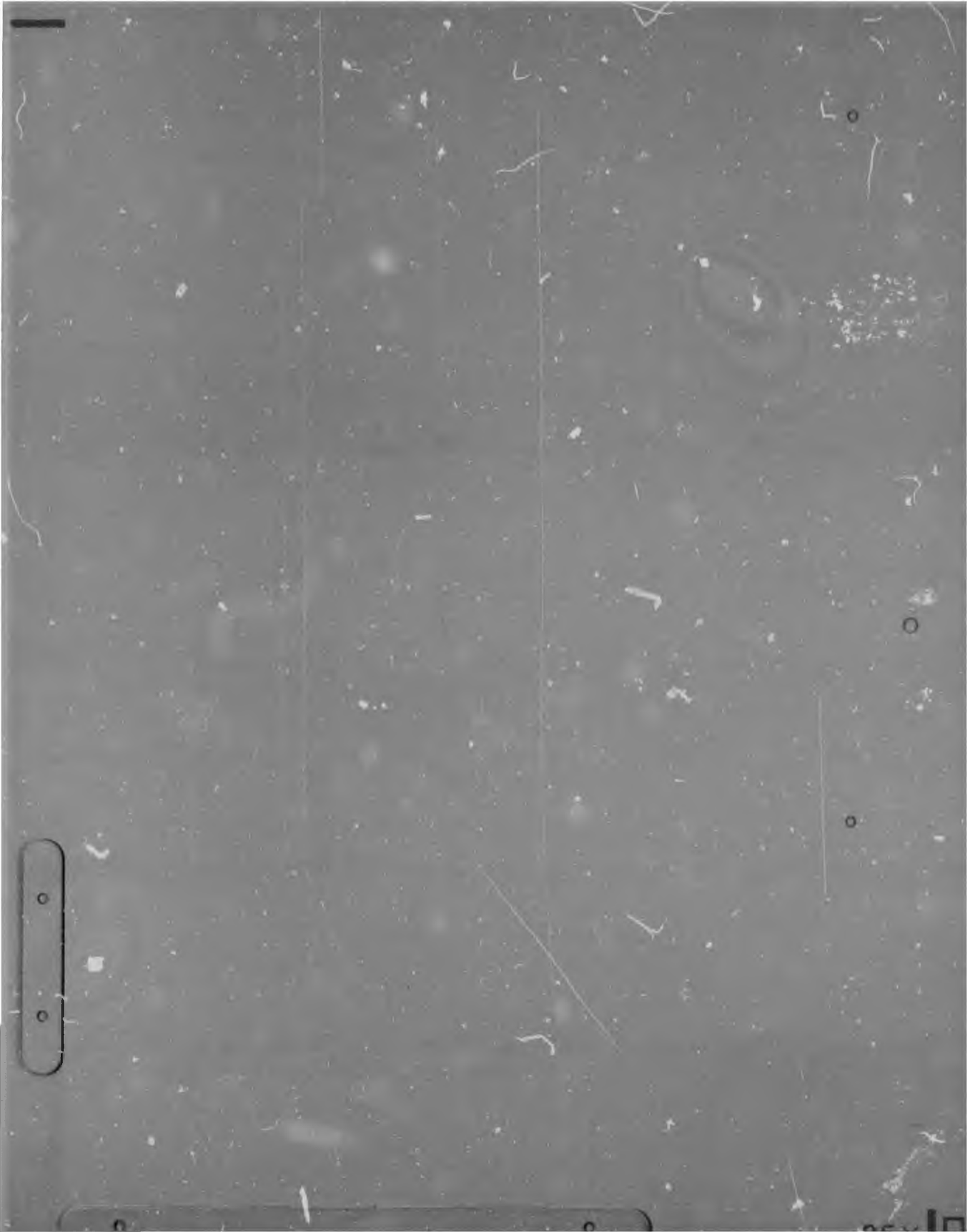
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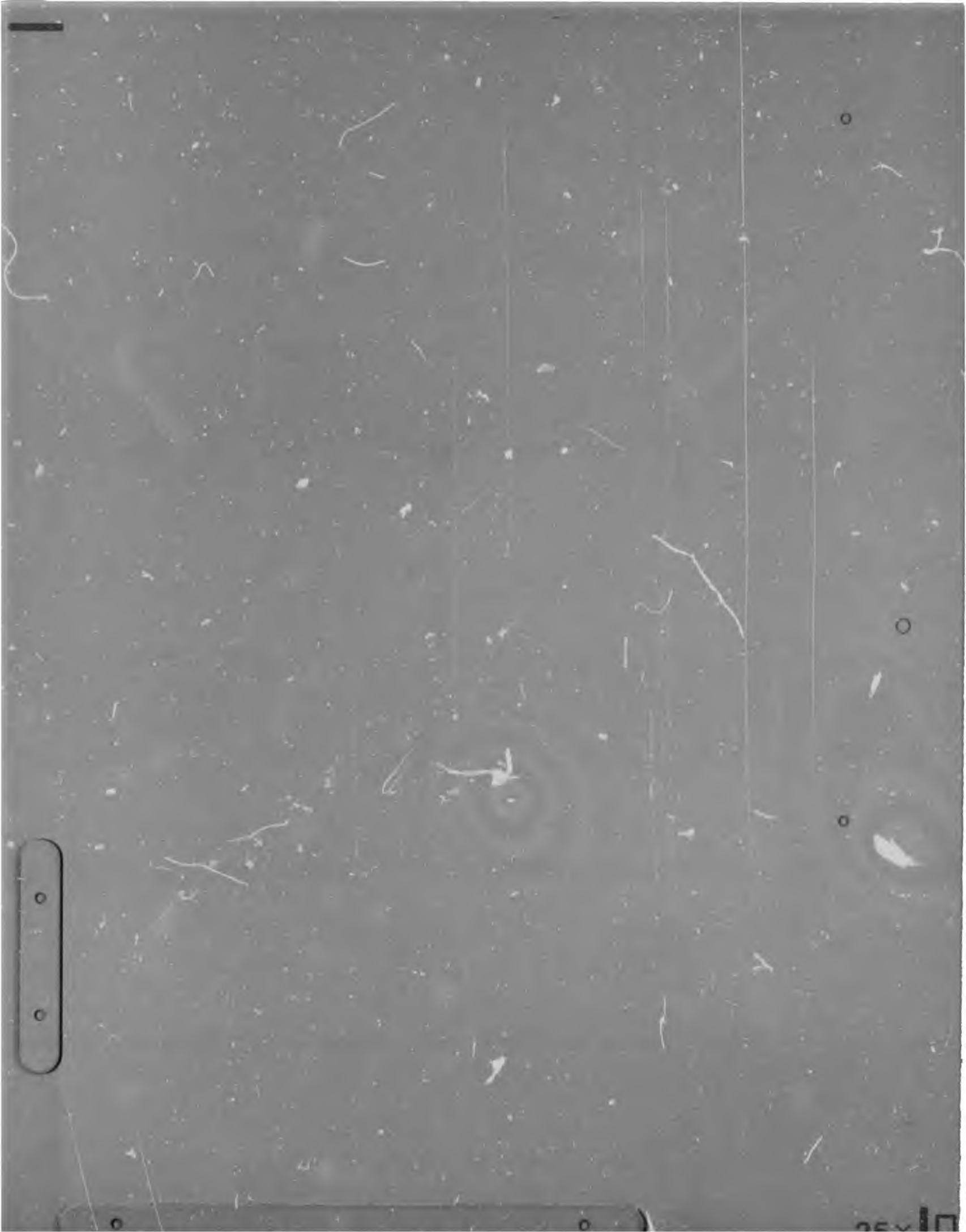
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Author Roake-Barefoot M J
Name of thesis The relationship between cognitive style and assessed performance in retailing 1989

PUBLISHER:
University of the Witwatersrand, Johannesburg
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