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THE IDEAL HOMEWORKERS: AN INVESTIGATION OF PERSONAL & JOB CHARACTERISTIC REQUIREMENTS FOR SUCCESSFUL HOME BASED WORK

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ABSTRACT

Global competition, societal changes and other environmental influences have forced organisations to review existing work arrangements. Flexible work practices have been identified as one mechanism for the alignment of organisational and individual goals. Homebased work or telecommuting, which involves working at a remote site, is an example of such a practice.

Working from home can have advantages for the organisation in terms of savings in infrastructure costs. Individual employees would also potentially benefit through reduced costs associated with work (e.g. travel and food), and the ability to better manage their work and home life. However, since 25 years ago when homebased work was starting to be recognised as a viable work option, projections for homebased work have not come to fruition. Much of this is attributed to conservative organisational cultures, specifically managerial resistance towards work at home. The relatively small amount of research on homebased work has to some extent perpetuated management uncertainty in Australia and overseas.

This study aimed to examine the attributes needed by homebased workers, that is, the personal and job characteristics that could make the arrangement successful in both individual and organisational terms. This knowledge would lessen management uncertainty in relation to the types of jobs and employees who could be deemed suitable to engage in this new work practice.

The study was exploratory in nature. Information was collected from human resource managers at 472 organisations in Australia. This was followed by semi-structured interviews with 21 homeworkers. Based on the literature, and information collected through the first two phases of the study, a questionnaire was designed to collect more specific information from homeworkers, and clarify points of interest. All up 42 responses were received from this phase of the study. This study was cross-sectional in nature, however, the three-phased approach allowed for cross validation of results, and was therefore very valuable in detecting trends.

Findings from this research indicated that personal characteristics, such as demography, competencies, and the psychological profile of the homeworker, do contribute to the benefits gained from the program. Job characteristics, in terms of occupation and the design of the job to be performed at home, also contribute to success. Although, the main focus of this study was on personal and job characteristics deemed suitable for homebased work, it was also found that the home and work environment of the homeworker are major success factors. It can therefore be surmised that benefits from a homebased work program can be enhanced by selecting for appropriate employees and jobs, and devising policies that account for the home and work environment of the homeworker.

Declaration

I certify that this thesis does not, to the best of my knowledge and belief:

incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;

contain any material previously published or written by another person except where due reference is made in the text; or

contain any defamatory material.

Maryam Omari

Acknowledgment

I wish to thank my supervisor Dr Peter Standen, and my good friend and colleague Megan Paull for their continued support and feedback. I also would like to thank my husband Dr Arshad Omari and my daughter Lilith Omari for their patience and understanding.

I am also very grateful for the contributions of the organisations and individual homeworkers who gave their time and views freely. Without them this study would not be possible.

Finally, my thanks to the Australian Taxation Office (ATO) that supported and funded my studies over an eight year period.

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1. INTRODUCTION

Telecommuting, teleworking, networking, homeworking, homebased work (HBW) and other similar terms have been used to describe the act of working away from a traditional centralised work-site, often with the aid of information technology. This involves either working from home, at a client's premises or from a car or remote office, and exchanging information with the office through the use of communication technology such as: phone, computer, fax, modem, videoconferencing, voicemail or electronic mail.

As this study aimed to research the area in the broadest sense possible, it did not require that computer based information technologies form an essential part of the work being undertaken. The focus of this research is on work performed at the home site, regardless of the use of information technologies. As well as this, for the purposes of this study, spending the minimum of one day a week at home for full-time workers, and part thereof for part-time workers, constituted participation in homebased work.

The aim of this research is to investigate personal and job characteristics suitable for HBW. The study is based on the premise that certain employees are more suited to working from home. It can therefore be assumed that benefits of a HBW program can be maximised by practices that identify and select for appropriate personal and job characteristics.

This chapter will explore the current trends in homebased work. Mention will be made of factors driving and inhibiting the growth of HBW. The significance of this work

arrangement will be explored in light of the current business environment. The chapter will conclude with an overview of the study.

Background

The concept of working away from the centralised work site has been practised and formally recognised in the US and Europe for the last 25 years. The numbers of homeworkers in the US and UK are estimated at 8,000,000 and 3,000,000 respectively, and this is projected to grow to 33,000,000 in the US by the year 2010 (Gray, Hodson & Gordon, 1994). Olmsted and Smith (1997) report that during the mid to late 1990s some large US organisations had significant numbers of telecommuters, for example 4500 at AT&T, 6500 at Dupont, and 25,000 at IBM.

However, it is noteworthy that, for the US at least, earlier projections for the numbers of telecommuters/homeworkers have not been realised (Tunyaplin, Lunce, & Maniam, 1998). The reasons are primarily attributed to the perceived loss of management control and employee commitment (Koezenlowski, 1995). Grensing-Pophal (1999) contends that the concern from the manager's perspective relates to the potential for the devaluation of managerial work. That is, if the homeworkers are seen as self-sufficient individuals worthy of unsupervised work, this leaves little for the managers to do. Such perceptions have resulted in managers not actively supporting HBW. It should also be noted that modern management theorists encourage the notion of visible management and face to face contact (e.g. "management by walking around"). The notion of HBW requires a paradigm shift in this regard (Apgar, 1998), where personalised contact is replaced by electronic and other modes of communication

Other factors slowing the spread of HBW relate to information security (Sturgeon, 1996) and the nature of Information Technology, hereafter referred to as IT (Pliskin, 1997). In relation to the former, public and private agencies everywhere in the world are concerned with "security, confidentiality, privacy, integrity, authenticity and accountability" (Sturgeon, 1996, p. 2). The safeguard of information transmitted through electronic means, used and stored away from the central work-site, creates challenges for organisations. With reference to the latter, advances in IT have been seen to create a "telecommuting paradox" (Pliskin, 1997, p.1) apparent in the current evolutionary phase of the industry.

IT Developments during the 1960s related to centralised processing of numbers, mainly for military purposes. The 1970s saw the emergence of remote work, however computers were still centralised but links could be made to the central systems. The reduction in the cost of computers, along with the development of the laptop during the 1980s created a huge impetus for change. However, phone communication lines created bottlenecks. In the 1990s, the power of home computers allowed the operation of very sophisticated on-line functions, although information security remained an issue. As well as this, phone companies are faced with the challenge that traditional design of phone connections is aimed at maintaining conversations lasting minutes, not for computer connections lasting hours (Pliskin, 1997, p.1-3). Therefore, although technology can be seen as an enabler of change, in this context paving the path to work effectively from home, it can also act as a barrier.

In Australia during 1992 around 2,000,000 people were reported as working some hours from home (ABS, 1992 cited in Wood, 1994). The Australian Public Service (APS) Home Based Work Interim Award of February 14, 1994 contributed to the concept

gaining prominence in Australia. However, there is only a very small body of knowledge available internationally, and almost none in Australia, to aid in understanding this work arrangement, and to identify best practice in selecting personnel.

Most studies on HBW have been specifically aimed at measuring productivity gains associated with HBW pilot programs. A handful of overseas studies have touched on personal and job characteristics suitable for HBW (Gurstein, 1991; Hartman, Stoner & Arora, 1991; Olson, 1988; Salamon & Salamon, 1984; Wright & Oldford, 1993) but these have not had a selection focus, and therefore have not yielded clear results. The identification of characteristics suitable for homebased work is a key to success for any HBW program, as poor choice of job or employee can eliminate the potential benefits of greater productivity for the employer, and improved quality of work life for the employee. This issue generated much interested at the "Telework '94" conference in Sydney during November 1994, with no clear answers given due to the lack of research in the area. It is therefore hoped that this study will contribute to knowledge on this alternative work practice.

Homebased Work in the Current Business Environment

Organisations today function in an environment that is increasingly complex and dynamic. Forces external and internal to an organisation, such as increasing global competition, the pace and complexity of technological change, shifts to a service economy, continuation of mergers and acquisitions, and changing workforce demography, are constantly exerting pressure on systems and structures (Hussey, 1992; Schuler, Dowling, Smart & Huber, 1992). To survive and remain competitive

organisations must react to these forces by developing and implementing appropriate strategies.

In this environment the human resource management function is no longer concerned only with increasing organisational effectiveness through the performance of people, but also with improving the quality of work life of employees. More and more organisations are realising that to remain competitive and survive, they need a motivated, productive and dedicated workforce. This means that the needs of the business should be tied to those of the employee.

The workforce of the future will be extremely complex and diverse in terms of needs, goals, background, gender, age, country of origin and values. Therefore, organisations must adopt a flexible approach towards their employees in order to help meet their disparate goals. Redwood (1990) describes the emergence of flexible work practices (e.g. flexi-time, shared jobs, telecommuting, extended/paternity leave and subsidised day care) that result in a less rigid approach to work and employees.

The challenge therefore is devising appropriate programs and conditions to increase the benefits to both the organisation and employees. Flexible work arrangements (e.g. job-sharing, part-time work and temporary employment) generally aim to increase the quality of work life of employees by providing flexibility in the time spent at work (Caudron, 1998). This then provides opportunities to meet other personal and family commitments, and pursue leisure activities. With HBW this concept has been further extended to include flexibility in the place at which work is carried out.

Most organisations that have implemented the concept successfully have seen it as a strategic tool to help meet business objectives (Wilson, 1991). As with many other new practices, HBW has been reported to have both advantages, and disadvantages. Advantages include higher productivity, reduced commuting time, flexibility in organising work/life, and reducing overheads for organisations. Disadvantages include low morale in the workplace, employees feeling isolated, potential changes in work conditions, and work-family conflict (Lamond, Daniels and Standen, 1997 cited in Daniels, Lamond and Standen, 2000).

The challenge is therefore to build on the competitive edge the arrangement can offer, whilst minimising the downsides. The former can be done through the identification of best practice, and the latter through an investigation of problems with existing arrangements. The ultimate aim should be to achieve benefits for the organisation and the individual.

Overview of Study

This study aimed at exploring the factors that make homebased work arrangements beneficial. Benefits were investigated from the perspective of the organisation, the actual work being carried out, and the individual. In line with accepted selection and recruitment practices, suitability for HBW was investigated in relation to the nature of both the jobs and the people who are appropriate for this work arrangement. Early on, and as noted in the next chapter, it became apparent that the environment (both at home and within the organisation) also has an impact on outcomes. However, an in-depth study of the environment was not the main focus of this research.

This study was conducted in Australia, although extensive usage was made of Australian and international literature to provide a context to the research. The study was exploratory in nature due to the absence of a significant research base on the impact of personal, and job characteristics on HBW. Information was collected in three phases. The first involved a survey of Australia's largest organisations examining perceptions towards HBW and the prevalence of the practice. The second phase involved semi-structured interviews with homeworkers. The final phase involved a questionnaire collecting more specific information from homeworkers on issues identified in earlier phases. The data collection phase of the research was carried out over a two year period.

The results of this research can be used by organisations and individuals in maximising benefits gained by selecting for characteristics (both job related and personal) that directly impact on successful HBW arrangements. Researchers can also build on the findings of this study to assist in theory development. Other general findings can be used in devising, and implementing HBW programs.

2. REVIEW OF LITERATURE

This chapter will discuss the current body of knowledge on homebased work. The emergence of this work practice will be explored, followed by the current state of development in Australia, and then a discussion of the potential benefits of HBW. An in-depth discussion of factors influencing the success of homebased programs will follow, with specific focus on the variables of interest to this study.

The Emergence of HBW

The centralisation of work began in the 1700s with the industrial revolution, when people left towns and villages to aggregate in larger cities for employment. Mass production and assembly lines became the hallmark of an era where people were treated as "interchangeable parts of the machinery (and equipment) with which they worked" (Berkman & Neider, 1987, p. 25). The high volumes of product output made it more cost effective to group employees and machinery in centralised sites. These conditions of employment resulted in a poor quality of work life for men, women and children during the early industrial era.

The concept of HBW is a natural progression from the decentralisation of work that started in the 1980s. The need initially arose as centralised bureaucracies became too large and inflexible to manage, and therefore unresponsive to market forces. The need for flexible specialisation was the impetus for decentralised organisational structures whose adaptability would facilitate the achievement of organisational goals. Wallace (1989) states:

> *standardised mass production has become obsolete in today's fast-changing global economy... [organisations] must move towards a system of flexible, specialised production that is capable of responding quickly to changes in consumer tastes and new opportunities made possible by technological innovation (p. 365)*

In a decentralised workplace, the advantages of the economies of scale are lost. However, the degree of individual control over work and action increases as a result of more autonomy and fewer levels of hierarchy, in turn resulting in more flexible and responsive work practices better suited to functioning in complex and dynamic environments (Eunson, 1987).

Goldfinger (1998, p. 2) attributes the emergence of what he calls "non-typical jobs" (e.g. part-time, temporary, contract, and flexi work) to the need for flexibility in response to competitive pressures. The stable organisational structures of the past are no longer capable of responding quickly enough to demands. Cost cutting and downsizing efforts pave the path for alternative, and more flexible approaches to work. The real benefits of these approaches are only realised if the goals of the workers and the organisation are aligned, so that the arrangements provide benefits for all parties.

Changes in the internal and external environments of organizations have brought about the need for a more strategic approach to people management policies. That is, it is no longer sufficient for organisations to devise and implement human resource (HR) management policies in an ad-hoc manner. There is a need for a coordinated, and integrated approach to HR that is in line with the organisational direction (Stone, 1998). In relation to flexible work policies, a strategic view would mean that the business case for potential policies was identified and the benefits of those policies to organisational performance indicators such as turnover, absenteeism, recruitment, staffing flexibility or productivity, were communicated to managers (Hiltrop, 2000). It also means evaluating

the contribution of all HR policies, including flexible work policies to such outcomes on a regular basis.

Flexibility in employment practices has often been attributed to organisational attempts to reduce costs and increase control over labour (Wilson, 1991). Some HBW programs have gone down this path turning full-time staff into contractors. However, the focus of this research is on mutually beneficial forms of HBW, where employees retain full-time permanent status, and work from home on a voluntary basis.

HBW in Australia

The emergence and spread of HBW in Australia has been slow compared to the US and Europe due to several factors: employees live at relatively close proximity to their place of employment; mild weather (no snow storms or blizzards); the relatively high cost of technological equipment/services; and the slow rate of adoption of new technology (Erlich, 1994; The Yankee Group, 1994). A New Zealand study also found that HBW was slow to emerge in that country as the cost of office space was low, and unemployment rate was relatively high, creating a job market favourable to employers (Schoeffel, Loveridge & Davidson, 1993).

Jones (1996, p. 26) believes that Australia is about 8 years behind Europe, which is seen as the world leader in HBW, and about 5 years behind the US. However, many organisations are now trialing HBW, including the following mentioned in press reports or business magazines: Telstra, NSW Roads & Traffic Authority, CSIRO, Department of Primary Industries & Energy, Hewlett Packard Australia, John Fairfax & Sons, Shell Australia, Caltex Oil, Johnson & Johnson, Australian Securities Commission,

Transperth, Brisbane City Council, Queensland Parliamentary Council Office, Sydney Water Board, and Friends Provident Life Office.

One well known example is the Australian Public Service (APS) HBW Award, the first award of its kind in the world which applied to around 150,000 Commonwealth Government employees and provided guidelines for implementing HBW arrangements in the agencies. However, by late 1994 few public servants had been granted approval to work under the Award, despite hundreds of applications having been lodged (Pagonis, 1994). The situation is no different today. By mid 2000, large Public Service departments were still in the process of fine tunning arrangements through their enterprise agreements. Part of the reason for this slow acceptance appears to be management reluctance to venture into the unknown, including how to select homeworkers and jobs suited to homebased work (Standen, 2000). This study can reduce management uncertainty by contributing to the knowledge base in this area.

Benefits of HBW

Previous research suggests that there is definitely competitive potential in adopting a flexible approach to work (Hartman, Stoner & Arora, 1992; Wilson, 1991). However, as Huws (1994) indicates it cannot be assumed that success for one party (e.g. the organisation), necessarily translate to success for the other (e.g. the employee). Therefore, it is imperative to fully define the benefits sought by both parties. For example a HBW situation may assist the organisation in cutting the costs of infrastructure, but may be detrimental to the health of a homeworker who becomes a workaholic.

From an organisational perspective the potential benefits include: better retention rates; responding to diversity and differing needs; better recruitment options; meeting business needs; and helping to manage staff morale, satisfaction and expectations (Solomon, 1996). Direct benefits to the work task can also be achieved, for example more task autonomy can increase effectiveness (Caudron, 1998). Employee benefits can relate to work and personal freedom (Chevron & Primeau, 1996), for example ability to balance work and family. These benefits are examined in more detail in the next chapter.

Influences on the success of HBW

Some studies indicate that the nature of the job undertaken and the characteristics of the worker affect the success of HBW arrangements (Deming, 1994; Schoeffel, Loveridge & Davidson, 1993). Other contributors to success are the way in which the program is devised and implemented. Like any other change initiative, for a HBW program to yield anticipated benefits many elements need to be addressed. Some of these include:

- Establishment of clear program objectives linked with corporate objectives
- Top management support, and identification of champions to promote the program
- Managing the whole package of change (e.g. integration with related practices, alignment with the organisational structure/culture, and the provision of support)
- Monitoring success against expectations and focusing on long term benefits

- Involvement of key stakeholders (e.g. managers, employees, clients, unions, etc.)

- Developing appropriate human resource strategies (e.g. recruitment and selection) (Robbins, Millett, Cacioppe, Waters-Marsh, 1998).

This study focuses on identifying the personal and job characteristics that are most relevant to HBW. Such information will be crucial for acquiring, developing and retaining successful homeworkers, and optimising benefits gained from this practice. Figure 1 is a representation of the model behind this research.

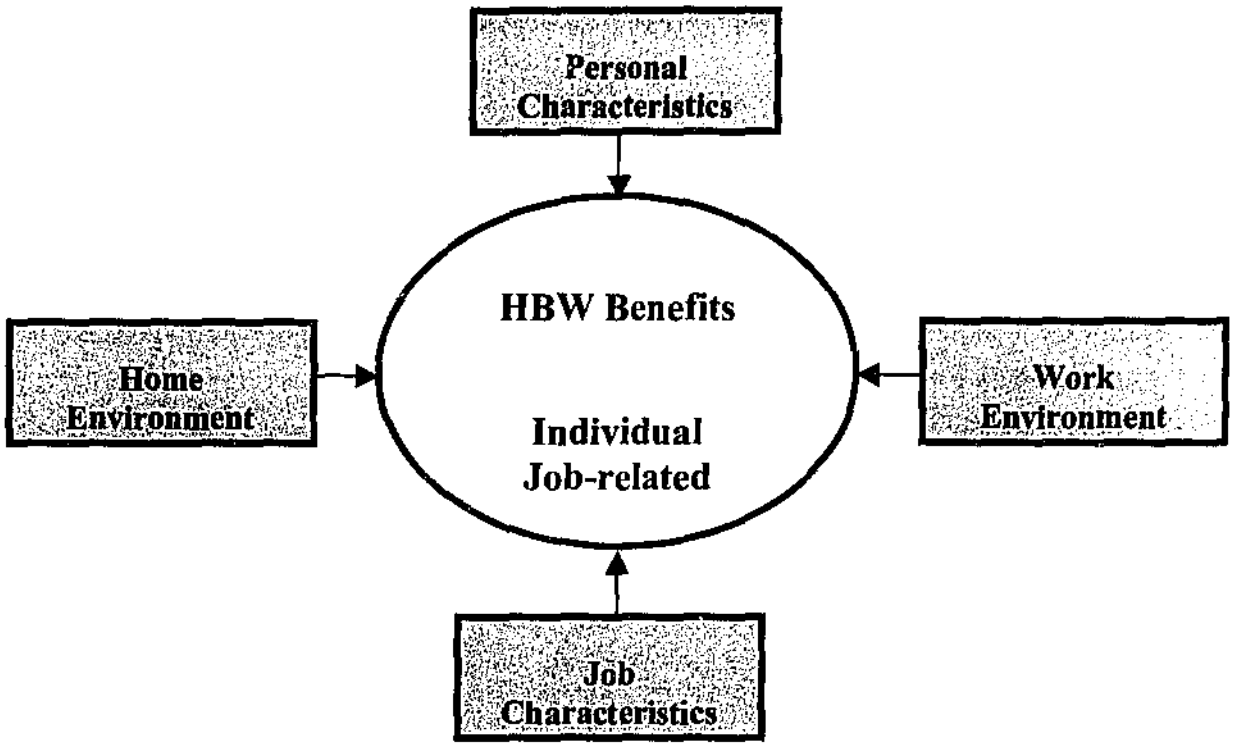

Figure 1. Research model

As shown in Figure 1, aspects of the work environment and the home environment also determine the benefits delivered by HBW, although these are not examined in detail in this study. Early findings from this study (Omari & Standen, 2000), and the literature, indicate that these are important factors. As such, they have been included in the research model to provide a more holistic view of the influences.

Personal characteristics

For the purposes of this study personal characteristics have been divided into three main dimensions of demography, competencies and psychological profile. All three areas have been linked, either directly or anecdotally, to successful HBW arrangements (Bailyn, 1988; Olson 1989). Ivancevich, Olekalns and Matheson (1997) contend that individual variables of demography, abilities and skills, perception, attitudes and

personality are appropriate determinants of work behaviour in general. All of these factors are taken into consideration in developing the personal characteristics scale described below.

Demography

Kinsman (1987) suggests that women find HBW easier to cope with than men. Reports from an overseas pilot program (Long, 1987) suggest gender based differences in motivation for HBW. Female homeworkers were found to be motivated by external constraints (e.g. family obligations), whereas their male counterparts were motivated by personal work related preferences (e.g. reduced distraction and improved work environment). Due to the absence of information on the exact nature of the pilot and evaluation methodology adopted, the generalisability of this finding remains uncertain.

Other factors which have been anecdotaly linked to success in HBW are: satisfactory work performance (Filipczak, 1992; Frolick, Wilkes & Urwiler, 1993); length of service and time spent in current job (Evans, 1993), age, marital status, education, income, commuting time, length of average working week, and number of hours spent working at home (Deming, 1994; Olszewski, & Mokhtarian, 1994; Schoeffel, Loveridge & Davidson, 1993).

Competencies

The existing literature contains an abundance of reports and articles identifying the competencies required for successful HBW (Ford & Butts, 1991; Gray, Hodson & Gordon 1994; Hoppe, 1994). Much of this information is fragmented and either based on results of pilot studies with small subject numbers, or simply a result of the author

taking a pragmatic view of the requirements and extrapolating the findings and conclusions of others. There is no solid research base that can assist in devising policies for recruitment, selection, and training of candidates for HBW.

For the purposes of this study, competencies were grouped into the three main elements of: skills, knowledge, and abilities. In the knowledge domain, Alvi & McIntyre (1993) hypothesise that basic requirements for a homeworker include a thorough understanding of the job and its requirements, and where the use of information technology is integral, computer literacy. They also state that instruction in both technical knowledge and "soft skills" is important for the homeworker. The technical training will ensure effective use of the technology, while the soft skills training will cover planning, organisational and communication skills – imperative skills for distance work. Gray, Hodson and Gordon (1994) indicate that the following skills are necessary for successful HBW: self discipline/management, organisation, time management, bargaining, self assessment, communication, decision making, and problem solving.

A final area that requires attention is individual ability. This could include: personal flexibility, being focused, having initiative, self discipline, and ability to work with minimal supervision (Piskurich, 1996).

Psychological Profile

Cote-O'Hara (1993) indicates that the psychological profile of a worker is an important factor in being able to cope with a HBW situation. That is, certain traits or behaviours can impact on the ability to deal successfully with work from a remote site. Similarly Crossan and Burton (1993) state that the personality of an individual is a deciding factor in the way they regard their job, and therefore affects expectations and enjoyment of

work. Robbins, Waters-Marsh, Cacioppe and Millett (1994, p. 114) define personality as, "the consistent psychological patterns within an individual that affect the way he or she interacts with others and the situations a person encounters". The predisposition to act or behave in a particular way can be seen to contribute to HBW success. However, no study to date has aimed to identify and isolate the psychological factors crucial to successful HBW. For the purposes of scoping this research, the psychological profile of homeworkers will be viewed under the two main elements of *life goals and values*, and *attitudes and qualities*.

LIFE GOALS AND VALUES

It is important to consider employee *life goals/values* in the context of successful HBW as these lay the foundation for understanding attitudes, preferences and behaviours. Maslow's hierarchy of needs is seen by some authors as a yardstick for success of a HBW arrangement (Blake & Surprenant, 1990; Moffatt, 1994). These authors speculate that individuals who have reached the highest level in the hierarchy of needs, self fulfilment, are ideal candidates as both homeworkers and supervisors of homeworkers, as they have achieved physical and external emotional needs that might otherwise be met in an office and are now looking within for satisfaction and fulfilment.

Blake and Surprenant (1990) postulate that people who often volunteer for HBW do so to accommodate family responsibilities - particularly women. They also identify the following life goals as appealing to homeworkers: need for additional interests or hobbies, wanting to live in a remote area, and in the case of married couples wanting to share a job and bring up their children. Apart from these and a few other studies (e.g. Bailyn 1989), very little investigation of life goals/values has taken place in HBW research.

A study of life goals and values is important in that it can explain priorities and behaviours that lead to successful HBW. These will be investigated here through work needs, using an adapted version of the Manifest Work Needs Questionnaire, hereafter referred to as MNQ (Robbins, Waters-Marsh, Cacioppe, & Millett, 1994), and through an investigation of motivational factors using an adapted version of the Achievement Motivation Questionnaire, hereafter referred to nAch (Robbins, Waters-Marsh, Cacioppe, & Millett, 1994). George and Jones (1996) contend that the nAch scale provides insights into organisationally related personality traits. This is in line with HBW research by Olson (1989) where similar instruments indicated attitudes towards remote work. More specific individual motivations for HBW, such as commuting time, family responsibilities, comfort, health, and study, will also be investigated.

ATTITUDES AND PERSONAL QUALITIES

Turning to *attitudes* and *personal qualities*, it is widely accepted in organisational behaviour literature that these characteristics of an employee are determinants of their work behaviour and performance (e.g. Robbins, Waters-Marsh, Cacioppe & Millett, 1994). Richter and Meshulam (1993) suggest that individuals opting for HBW are willing to trade personal benefits, power and status symbols for flexibility, autonomy and control over their time and actions and, in the case of professionals, have high levels of commitment to their professions.

In a study conducted by Bailyn (1988, p. 147) at ICL, a large UK IT firm, it became clear that work had a different interpretation for homeworkers when compared to office based employees.

The home-based group is less concerned with the instrumental or social returns of work, and more engaged in its intrinsic qualities: the interest of the task and the ability to keep up and learn new skills. Office-based employees, in contrast, are more concerned with status and prestige, and with the importance of promotion and pay.

Kinsman (1987) believes that a good homeworker is an enthusiastic volunteer with high job performance, although the literature suggests that there are two schools of thought in this area. The first recommends selecting the best performers for HBW, but this leaves little margin for productivity improvements (Filipczak, 1992). The second group believe workers with room to improve performance should be selected - although this group may lack motivation in the first place (Filipczak, 1992). Neither of the above hypotheses has empirical support.

Fierman (1994) suggests people are willing to sacrifice higher pay for flexibility such as the freedom to work at one's own pace, in one's own time and way. Other qualities linked to successful HBW that have been identified in the literature include independence and being a self starter (Department of Industrial Relations, 1994), initiative and motivation (Gray, Hodson & Gordon, 1994), dedication, confidence, maturity and little need for affiliation/support/power (Hall, 1989), varied interests (Kinsman, 1987), enjoying responsibility and responding to communications (Evans, 1993) and having trusting relationships (Weiss, 1994). All of these variables were investigated as part of this study

Working from home is hypothesised to be unsuitable for individuals with a history of conflict at home (Evans, 1993), young singles, out-going gregarious people who thrive on social contact (Filipczak, 1992), employees who need a fair degree of supervision and support in doing their job, people who see their home as a refuge from work (Filipczak, 1992), work driven individuals, and employees in the early stages of their

career where networking is important (Cross & Raizman, 1986; Wright & Oldford 1993; Young, 1992). Although any of these characteristics are yet to be comprehensively investigated in the literature this study did not exclude them.

Finally, in relation to personality, Cattell's 16 Personality Factors, hereafter referred to as 16PF (Robbins, 1996), and a modified version of the Myers Briggs Type Indicator, hereafter referred to as MBTI (Robbins, Waters-Marsh, Cacioppe, & Millett, 1994), could provide some insights and are chosen to investigate the personal characteristics of homeworkers in this study. These two instruments can provide complementary, yet different views of personal qualities. The 16PF have been found to be a good indicator for predicting individual behaviour in work settings (Robbins, Millett, Cacioppe, Waters-Marsh, 1998, p.85). The MBTI scale is widely used in the business world for team building, career planning, and self-discovery.

In summary, the literature on HBW suggests that certain personal characteristics are more suited to HBW, although almost all of the literature is based on speculation with very little empirical research to support the assumptions. No study has attempted to systematically identify or investigate personal characteristics for successful HBW. It is the aim of this research to determine what personal characteristics, in terms of life goals and values, and attitudes and qualities have an impact on the ability to work from home.

Job Characteristics

For the purposes of this study job characteristics will be investigated through the two interrelated dimensions of occupation (type of work) and job design (work conditions/requirements).

Occupation

Findings from the Telecom Australia pilot (Our Voice, 1993) suggest that the type of work appropriate for HBW is generally white-collar work involving a high degree of autonomy and independence. This includes jobs requiring reading, writing or analysis work and "...collection, organisation, storage and transmission of information" (Blake & Surprenant, 1990, p. 243). These types of jobs are often referred to as "knowledge work" - requiring information processing as opposed to manual work (Filipczak, 1992).

Other white-collar jobs that have been identified as suitable for HBW are: project work, research (Sorohan, 1993; Weiss, 1994), consulting (Richter & Meshulam, 1993), publicity, business planning, legal, human resources (Bailyn, 1988), translation, analysis (Sorohan, 1993), documentation, system design and development, (Department of Industrial Relations, 1994; Richter & Meshulam, 1993). Much of the reason for the suitability of these occupations has been attributed to the opportunity for independent thought and action, and measurable outcomes. From an other perspective, jobs not suitable for HBW have been identified as those "requiring a high degree of public contact, interaction, specialist equipment, training responsibility or team based work" (Family Friendly Flexible Work Practices – Home based work, 1997, p. 3).

Gray, Hodson and Gordon (1994, p. 37) go one step further in identifying two main categories of clerical work that are appropriate: on-line clerical jobs - electronically linked to the office (e.g. secretarial and telesales), and off-line clerical jobs (e.g. data entry and word processing).

Wright and Oldford (1993) suggest that half of the people working from home are either professionals or in management positions and carrying out work of an autonomous nature. Around 33% are employed in sales, technical and administrative fields.

There is an abundance of literature listing occupation types suitable for HBW, but no study has systematically explored the reasons behind the suitability of these jobs. This research aims to explore the suitability of occupation types for HBW based on an investigation of job requirements and design.

Much of the existing information in the literature results from the evaluation of pilot programs in organisations trialing HBW or is based on speculation. As a first step in clarifying the area, this research will differentiate between professional/technical and clerical occupations, the "on-line" (electronically linked to head office) versus "off-line" (stand-alone) nature of the jobs, use of information technology, and tasks that can be successfully carried out from home.

Job Design

Richter and Meshulam (1993) postulate that HBW is suitable for jobs at two ends of the continuum: simple routine tasks with low complexity or interaction (e.g. data entry), and complex, non-routine tasks requiring individual creativity rather than teamwork.

> *The main criterion that determines whether a task is suited for being performed at home is its level of interdependence, that is the extent to which the task involves the work of other people, the amount of personal interchange needed, the frequency with which feedback is required, and the availability of the information needed to carry out the task. (Richter & Meshulam, 1993, p. 199)*

Bailyn (1988), Long (1987) and Gray, Hodson and Gordon (1994) hypothesise that jobs appropriate for HBW have minimal space, equipment and physical requirements, give

the individual control over work pace, involve knowledge work, are non-routine, have unstructured tasks, and are assessed by results (Moffatt, 1994). These generally include jobs with well-defined outputs (Moffatt, 1994), relatively low need for communication and a high need for concentration. Socialisation at work is thought to be less important for individuals carrying out these types of tasks. Creative tasks (e.g. designing) are thought to require other people to bounce ideas off and hence were deemed unsuitable, although other authors argue that jobs requiring creative thought cannot be confined to business hours during a working week and hence are ideal for HBW (Moffatt, 1994; Richter & Meshulam, 1993; Salomon & Salomon, 1984).

Jobs that are thought to be unsuitable for HBW are those that require regular and frequent face to face contact with colleagues and customers, that is teamwork and interactive consultation (Gordon, 1987; Richter & Meshulam, 1993). Others argue that jobs that do require a great deal of face to face client contact like field engineering, sales and auditing are ideal for HBW (Stamps, 1994), although much of this is based solely on speculation.

The APS Award (1994) listed the following job characteristics as unsuitable for HBW:

- "... a high degree of supervision or close scrutiny,
- ... direct client face to face contact at the home based site,
- ... not lend[ing] itself to objective performance monitoring,
- ... [carrying] full time training or supervisory responsibilities, and

- ... [requiring] the occupant to be a member of a team, and that regular direct face to face contact on a daily basis with other team members at the office based site is an integral part of the job's responsibilities".

For the purpose of systematically analysing the job design characteristics for successful HBW, the six job characteristic dimensions of *variety*, *autonomy*, *feedback*, *dealing with others*, *task identity* and *friendship* from the Job Characteristics Inventory, hereafter referred to as the JCI (Sims, Szilagyi and Keller, 1976) will be used. As well as this, an analysis of occupation types, and tasks carried out at home will also provide further insight into the design of jobs suited to HBW. These two dimensions ensure a holistic approach.

Conclusion and contribution of this study

Narrow investigation of the benefits gained from HBW, and the reporting of outcomes purely from an employee's or manager's standpoint have contributed to discrepancies in research findings to date.

The present study was designed to address these limitations. A cross-sectional survey of organisations was supplemented by in-depth interviews with homeworkers and their managers. Findings from the interviews were then clarified through the use of a second questionnaire. This design allowed for comparison between organisational and individual results. This had not been attempted in previous research which, had been focused on either homeworkers or their managers.

A systematic definition of success, involving the benefits gained for the organisation, the job, and the individual employee, was another important consideration in designing

this research. This broad "success" construct could then be linked to the variable sets described in this chapter.

Another contribution of this study is to examine these relationships in the Australian context, which has been the subject of few studies. It must be noted that previous designs, methodologies and findings of overseas research were valuable in the construction and implementation of this study.

A further limitation of previous studies is the lack of instruments with good reliability and validity. This has been addressed in this study by the use of standard instruments as described here and in the next chapter, contributing to the accuracy and consistency of results.

In conclusion, the study aimed to research the benefits of HBW in a structured and well defined manner with good reliability and validity. Variables were identified from a broad survey of the existing body of knowledge, capturing previously little studied influences. The final outcome is a model that can assist managers, practitioners and researchers to better understand and implement HBW programs.

3. THEORETICAL FRAMEWORK

This chapter will detail the study questions and the research model. The key concepts in the model will then be defined and broken down into component variables.

Study Questions

This research aimed to identify the personal and job characteristics that make homebased work successful. Four general questions were:

- What personal characteristics (i.e. demographics, competencies, and psychological profile) are related to success in HBW?
- What motivates successful homeworkers?
- What types of occupations do successful homebased workers have?
- What types of job designs are related to success in HBW?

As a result of the literature review, the research model in Figure 1 was refined to include the variables shown in Figure 2. The primary focus of the study was to examine whether the personal and job variables mentioned in the literature were related to the benefits identified by homebased workers in three areas: *personal benefits* (e.g. work-family integration), *job-related benefits* (e.g. an environment more conducive to effective work practices), *and organisational benefits* (e.g. reduced absenteeism). To test this, scales measuring *demography*, *competencies* and *psychological profile* were devised to assess personal characteristics, while job characteristics were measured using

scales tapping *occupational* and *job design* variables. Statistical tests were used to examine the relationship between the benefits reported by homeworkers and the worker's personal and job characteristics.

A second aim was to examine the perceptions of supervisors and Human Resource (HR) managers concerning HBW. This was to provide background information on the extent and type of HBW arrangements in Australian organisations, and to indicate variables for the model in Figure 2 beyond those identified in the literature. As noted earlier, previous studies have chosen variables related to employees' or employers' perspectives on success, not both. As well, interviews with homeworkers were used to identify relevant items for the research model. The interviews and the background information gathering reflect the exploratory nature of the study with the aim of developing a systematic framework linking HBW benefits with personal, and organisational characteristics.

It should be noted that the study did not attempt a purely objective measure of "success" of homebased work, but rather used the subjective assessments of workers and their supervisors.

Study Variables

Summated scales measuring the eight areas shown in Figure 2 were constructed from the variables identified from the literature survey, interviews with homeworkers, and in some cases existing instruments. This section describes the rationale for these scales.

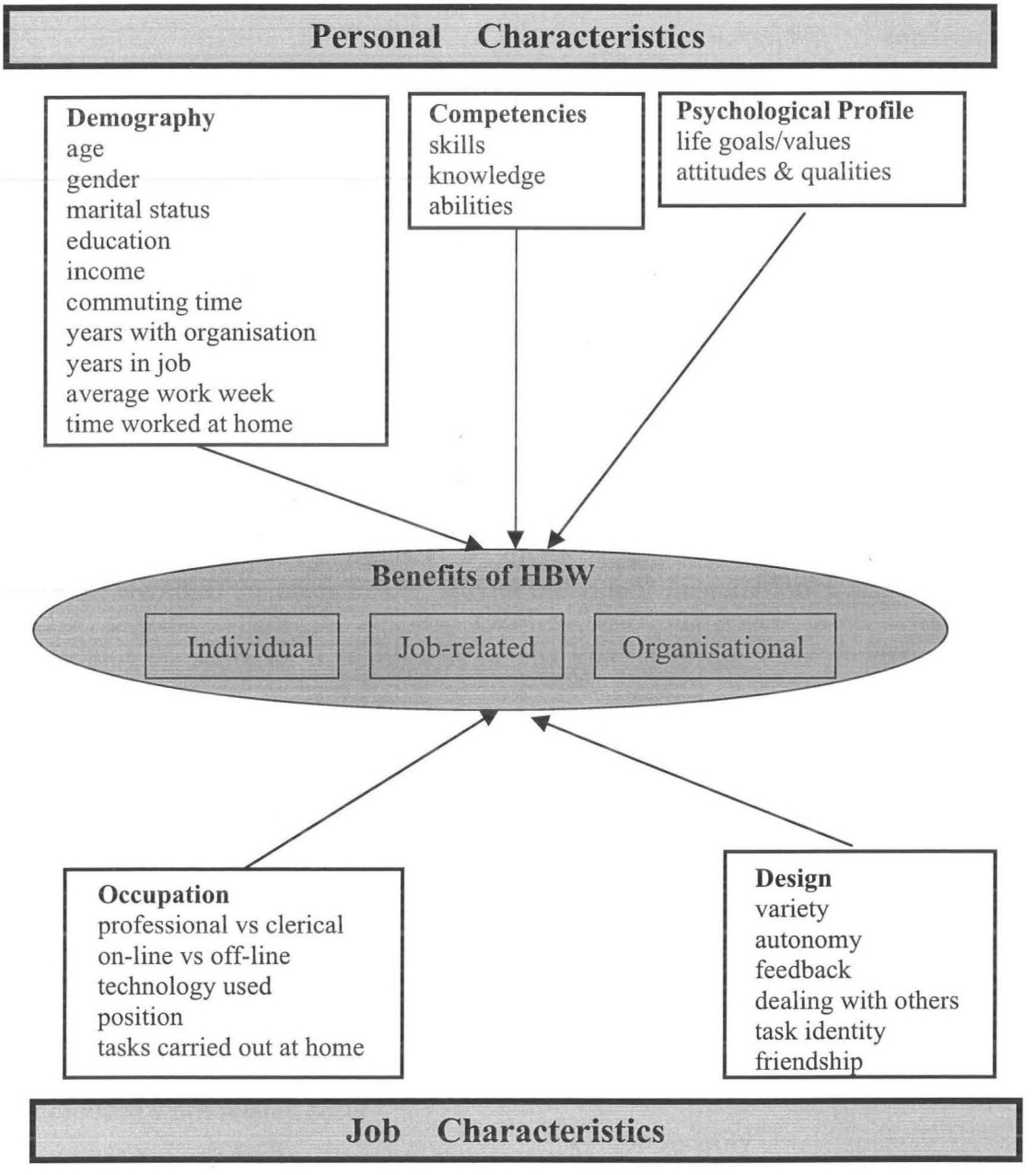

Figure 2. Refined research model

Benefits

As expectations of HBW vary between workers and organisations, it was necessary to use a broad measure encompassing individual, job-related and organisational outcomes. Some outcomes, of course, are perceived as benefits from all perspectives. For example, productivity is both a personal and an organisational benefit. In such cases, both parties were asked to comment on it. Where benefits applied primarily to one perspective it was just listed under that category to minimise overlap, for example job satisfaction was assessed as primarily an individual benefit.

The measurement of benefits occurred at the level of variables that were then summated into scales reflecting the eight concepts shown in figure 2. Thus individual benefits were measured in the areas below, and an *individual benefits* index was then created summating the score for it. Cronbach's alpha analysis of this scale returned a value of 0.86, indicating that it had excellent reliability (Sekaran, 2000a).

- balancing work and family
- synchronising body clock and work demands
- lower stress levels
- more family time
- reduced work related costs
- travel time
- motivation
- quality of life
- job satisfaction
- satisfaction with work environment
- desire to stay with the organisation
- pay
- involvement in community
- quality of work life
- career prospects
- recognition of achievements
- job security
- opportunities for training and development
- optimal use of skills and abilities
- receiving adequate work support and guidance
- providing adequate work support and guidance

Job-related benefits were measured using the elements below.

- finishing work on or ahead of time
- higher quality work
- completing work according to specifications
- autonomy
- fewer distractions
- greater ability to meet job requirements

The Cronbach's alpha test returned a value of 0.76 for this scale, indicating acceptable reliability (Sekaran, 2000a, p. 312).

Organisational benefits were measured using three measures of organisational success: productivity, absenteeism, and loyalty to the organisation. The Chronbach's alpha test returned a reliability value of 0.49 for this scale. The value although lower than for the other two summated scales, can still be considered acceptable for an exploratory study of this nature.

Personal Characteristics

Personal characteristics were studied through *demography*, *competencies*, and *psychological profile*. *Demographic characteristics* were represented through a number of variables identified from the literature. These were age, gender, marital status, education, income, commuting time, number of years in the organisation, number of years in the current job, average working week, and time spent at home.

Competencies investigated for successful HBW were separated into skill, knowledge, and ability arenas. For the purposes of this study, competencies ranging from computer literacy through to communication skills, self and time management, ability to work with minimum supervision, and team work were investigated.

Psychological characteristics were primarily investigated using four psychometric scales. Life goals and values were measured using behavioural preferences adopted from shortened versions of the MNQ, and nAch instruments (Robbins, Waters-Marsh, Cacioppe & Millett, 1994). Attitudes and qualities were measured using instruments adopted from the 16PF (Robbins, 1996), and the MBTI instruments (Robbins, Waters-Marsh, Cacioppe & Millett, 1994).

The MNQ has been found to exhibit "acceptable levels of convergent, discriminate, and predictive validity, as well as high test-retest reliability and internal consistency" (Steers & Braunstein, 1976, p. 251). Explanations for each of its scales are as follows:

- achievement - striving to improve and do better than before;
- affiliation - wanting and needing connectivity to the workplace and colleagues;
- autonomy - being self sufficient and doing things in own way; and
- dominance - taking a leading role in activities.

Another aspect of psychological profile related to work goals and values is tapped by the nAch scale (Cassidy & Lynn, 1989, p. 302-303). The scale has reasonable reliability and validity with values ranging between 0.52 – 0.81 for split-half reliability,

and Cronbach's coefficient alpha (Cassidy & Lynn, 1989, p. 307). All elements of the scale were used in this study.

The constituent parts of the nAch scale are as follows:

- work ethic – desire to work hard;
- acquisitions- reinforcing properties of material rewards;
- excellence- satisfaction in performing to the best of one's ability;
- competitiveness – enjoyment of competition with others with the ultimate goal of winning;
- status aspirations- climbing up the status hierarchy;
- mastery- tackling difficult tasks and succeeding in the face of difficulties; and
- dominance – desire to be a leader and in a position of power.

A third aspect of psychological profile was measured by the MBTI. This scale is widely used in organisations, especially in improving and addressing team dynamics, and is thought to make valid measurement of individual styles and work preferences (Wood, Wallace, Zeffane, Schermerhorn, Hunt & Osborn, 1998, p. 122). The 16PF has been found to reflect "constant sources of behaviour, allowing prediction of an individual's behaviour in specific situations (Robbins, Millett, Cacioppe & Waters-Marsh, 1998, p. 85).

Finally, a list of factors motivating individuals to seek HBW was used. These factors spanned both the life goals and values, and attitudes and qualities, scales. They were:

- Reduced commuting time
- Meeting family responsibilities
- Wanting to study
- Less distractions
- Constraining office environment
- More comfort at home
- Feeling secure
- Lower work related costs
- More relaxing environment
- More leisure time
- Better health
- Increased productivity
- Better meeting job requirements
- More creativity
- Wanting to start home business
- More peace and quiet

Regarding *competencies*, skills were general in nature, and in this context related to the way in which activities were conducted. Knowledge related to an understanding of the requirements of the job, and any other peripheral knowledge (e.g. IT knowledge) required to effectively carry out the duties. For the purposes of this research, abilities related to a predisposition to act in a particular way. It should be pointed out that knowledge is gained through formal and informal, on-the-job and off-the-job means, whereas a skill in the main is learnt by doing. Abilities may be learnt if a natural capacity does not exist in the individual. Therefore, it can be said that the organisation has the capacity to influence the degree of competency of the individual, hence putting them in good stead to succeed whilst working in a homebased environment. Yet again, the basis for selection of these criteria was material in existence in the literature, and that which was obtained during phase 1 of the study (please refer to the next chapter).

Job Characteristics

Job characteristics were studied through an investigation of the *occupations* of homeworkers, and the *design* of their job (Figure 2). The literature survey showed that important aspects of an *occupation* that affect HBW benefits were: professional versus clerical status, on-line versus off-line work (i.e. not needing direct electronic links to the head office), use of technology in the job (e.g. fax, modem), type of job (e.g. managerial, sales), and tasks carried out at home (e.g. reading, writing, analysis). Research question 3 is aimed at issues relating to occupation type.

Job design was measured using the six job dimensions from the JCI (Sims, Szilagyi & Keller, 1976) (Figure 4). Explanations for each of the sub-scales are as follows:

- variety – includes the diversity of tasks carried out;
- autonomy – freedom, independence, and discretion;
- feedback – clear and direct information needed to do a job well;
- dealing with others – interrelationships with other jobs in the organisation;
- task identity – carrying out whole jobs; and
- friendship – ability to interact with others in the workplace and establish informal relationships.

Sims, Szilagyi and Keller (1976) found the JCI to have a good level of reliability and validity, and therefore to be appropriate for studying the relationships between job characteristics and attitudes. With the exception of friendship (0.62), all other sub-

scales have a reliability of more than 0.7. The instrument was also found to have demonstrated high face validity, and acceptable construct validity by Sims, Szilagyi and Keller (1976).

4. METHOD

This section of the report will detail the research process, beginning with the design and followed by a description of the participants. The instruments adopted or constructed for this research are discussed, next the study variables are described. The methodology for the collection and analysis of the data will be followed by a description of the limitations of the study.

Design

This study was exploratory in nature, primarily aiming to develop a model that demonstrates the way in which job and personal characteristics maximise the benefits gained from HBW. The research made use of both qualitative and quantitative data. The investigation was a field study as information was collected in natural work settings, at the organisation, and the residence of the homeworkers.

The study had three main data gathering phases. These were:

Phase 1 Data collection from Australia's largest (top 1000) organisations. The questionnaire was addressed to the Human Resource (HR) manager in each organisation.

The aim of this phase was two-fold. Firstly, the questionnaire aimed at collecting information on managerial perceptions towards HBW and the nature of existing arrangements. In the second instance, organisations

with HBW programs were asked whether they would identify homeworkers for phases 2 and 3 of the study.

Phase 2 Semi-structured interviews with 21 homeworkers in Western Australia, and two unstructured interviews with HR managers or managers of homeworkers.

This phase of the study sought to describe how personal and job characteristics affect HBW. The semi-structured nature of the interviews allowed for the exploration of these issues. This phase, in conjunction with information collected in phase 1, was used to identify variables not mentioned in the literature survey.

The interviews either took place on the phone, or face to face at the residence of the homeworkers – the majority of the interviews were phone-based. The interviews aimed to provide an insight into the experiences in HBW, and reasons for engaging in it.

Although it was difficult to gain access to more HR managers and supervisors of homeworkers, information from phase 1 of the study also provided valuable insights into the viewpoints of organisations. This study helped provide a more complete picture of the work practice, and organisational considerations for success.

Phase 3 A survey of 42 homeworkers. This included individuals identified from interviews and the survey of organisations in phase 1.

This final and main phase sought to assess the model shown in Figure 2. Specific questions were asked of homeworkers to show how the five areas of personal and job characteristics predict individual, job-related and organisational benefits.

Participants

The information for this study was collected from two main sources: organisations and individuals. Organisations were selected from a database of Australia's largest 1000 companies (Kompass, 1995). Phase 1 questionnaires (Appendix A) were addressed to HR managers. As discussed the aim was two-fold, firstly to collect information from an organisational perspective, and secondly to identify organisations with HBW programs in order to gain access to homeworkers for the third phase of the study.

At the same time through personal contacts 21 individuals engaged in HBW in Western Australia were identified and interviewed using a semi-structured format (Appendix B). Two supervisors or HR managers from organisations with HBW programs were also interviewed using an unstructured interview format

In phase 3, homeworker questionnaires (Appendix C) were sent to all individuals who participated in the homeworker interviews. Up to five questionnaires were also sent to all organisations from phase 1 that indicated they had a HBW program or people working from home. In total 42 questionnaires were returned. It is hard to ascertain how many of the respondents had participated in phase 2 of the study, and how many were new as the questionnaires were anonymous. Based on demographic and job-related characteristics, it is possible that up to 17 of the respondents had participated in the interview stage of the study.

It proved difficult to find organisations with HBW programs, and an interest in participating in this study. All homeworkers interviewed, and many of the individuals surveyed, were identified through personal contacts and industry or professional links. It is worth mentioning that small sample sizes are common in HBW literature (e.g. Tomaskovic-Devey & Risman, 1993; Tunyaplin, Lunce & Maniam, 1998) as homeworkers are dispersed, and often informal arrangements are involved.

Instruments

The organisational survey instrument administered in phase 1 collected demographics and information on attitudes and activities relating to HBW.

Based on the review of the literature a semi-structured interview questionnaire was designed. This format gave the discussions some direction without limiting the individuals to the areas of interest, or specific questions asked.

The findings from the first two phases of the study and the literature review guided the construction of the homeworker questionnaire. This collected information on the elements of the dimensions shown in Figure 2, and had an open-ended question at the conclusion of the form. The scales in this questionnaire are described in the previous chapter.

Both survey instruments were pre-tested and subsequently fine-tuned before final distribution.

Validity and reliability

Clear and systematic definitions for key concepts were used to improve the validity of the findings. The study also attempted to maximise validity of the scales by adopting existing instruments where possible. The use of sections of existing instruments, rather than the whole instruments, should not affect the reliability and validity of the resulting composite instrument.

The internal consistency reliability measures for each scale should not be affected by the approach taken, and it is assumed that the validity of the individual scales remains intact. Validity was also addressed by using the literature and interviews to ensure content validity of new scales. This would also indicate that the reliability of the scales would remain intact (Sekaran, 2000b, p. 147). In addition, it must be reiterated that the study was exploratory in nature. Thus, reliability and validity of measurement scales were not strongly critical issues at this stage of research in the field.

Variable measures

Phase 1 data on the nature of HBW practices and attitudes towards HBW was collected from closed questions. For some items, open-ended questions allowed further explanation. The responses were either categorical or used five-point Likert scales.

In the homeworker questionnaire, summated scales measured individual, job-related and organisational benefits by averaging responses to each item. Five-point scales were used for all close-ended numerical questions. The scale labels were as follows:

	Not Important		**Moderately Important**		**Extremely Important**
HBW motivators	1	2	3	4	5
	Very Little		**Moderately**		**Very Much**
Job Characteristics	1	2	3	4	5
	Strongly Agree		**Neutral**		**Strongly Disagree**
Manifest work needs	1	2	3	4	5
	Strongly Agree		**Neutral**		**Strongly Disagree**
Achievement motivation	1	2	3	4	5
	Very Important		**Neutral**		**Not At All Important**
Competencies	1	2	3	4	5
	Increased		**No Change**		**Decreased**
Benefits	1	2	3	4	5

Behavioural preferences were measured using a five-point semantic differential scale. The Homeworker questionnaire is shown in Appendix C.

Data Collection Procedures

For phase 1 of the study, a self addressed, postage-paid envelope was included with the questionnaire, and a second mail-out was used to increase the response rate.

For the homeworker interviews, subjects were initially contacted to assess willingness to participate in the study. Once consent was given, the objective of the study was explained and an appointment was made for the interview. During this, more background to the study was given, and subjects were first asked broad questions about their experiences. The questioning revolved around four main themes; work at home arrangements; attitudes towards HBW; arrangements from a job and organisational perspective; and balancing work and home life. The interviewees were also given an opportunity to discuss any other important points. At the completion of the interview, participants were asked if they would be willing to participate further by later completing a more detailed survey.

The homeworker questionnaire was supplied with reply-paid envelopes. All organisations participating were offered a copy of the study report as an incentive.

Data Analysis Procedures

The majority of data collected during phases 1 and 3 of the study were analysed using quantitative analysis techniques. A significance level of $\alpha = 0.1$ was used due to the exploratory nature of the study. The bulk of the data from the second, interview phase of the study was qualitative, and therefore used thematical analysis; standard procedure

for analysing qualitative data (Sieman, 1991). This approach is in line with the aim of focusing on theory development - conducting research grounded in the context of organisational realities as described by participants (Schmitt & Klimoski, 1991). Specifically, the interview results were used to generate the scales for the homeworker survey that sought to test the research model in Figure 2.

Limitations of the Study

The database from which the 1000 organisations were selected was to some extent out of date. It was estimated that up to 10% of the organisations either appeared under several related businesses, or had moved since the database was compiled. The latter problem reduced the response rate. Large Public Service departments also appeared to be under-represented in the database. It is difficult to quantify the impact of these limitations. However, it is assumed that contact was made with the majority of the target organisations and the sample was therefore reasonably representative.

The non-probability sampling technique adopted for selecting homeworkers for the study may restrict the generalisability of the findings, although the respondents were not obviously different from expectations, except perhaps that there seemed to be a larger proportion who classified themselves as professionals.

Due to limited spread of HBW the sample size is small, but as noted earlier this is common in HBW studies (e.g. Tomaskovic-Devey & Risman, 1993; Tunyaplin, Lunce & Maniam, 1998). This limitation on sample size, and the exploratory nature of the study were the main study constraints.

5. RESULTS AND PRELIMINARY DISCUSSION

The primary goal of the study was to identify how the perceived benefits of HBW relate to the dimensions of personal and job characteristics: demography, competencies, psychological profile, occupation and job design. This section examines each of these concepts in turn. For each, the following are reported: background information from the organisational survey; descriptive statistics for the component variables; and, for the five predictor concepts, hypothesis tests of the relationship to perceived benefits. The descriptive and inferential results are based on the organisational and homeworker surveys respectively, and findings from the interviews are used to illuminate the statistical tests.

The research findings demonstrated complex relationships between the study variables. While the primary focus was on relationships between each of the five dimensions and the benefits of HBW, as the study progressed relationships amongst the dimensions of personal and job characteristics also became apparent. These are touched on in this chapter, and more fully explored in the next.

Response rate

The organisational survey (phase 1) yielded a response rate of 47% after the two rounds of questionnaire dispatch. In reality the response rate has been slightly under-represented as a few organisations were duplicated in the mail-out database.

It is hard to determine the response rate of the homeworker survey (phase 3). Up to five survey forms were sent to 120 organisations that had indicated they had homeworkers a

year earlier. However, it is not known how many were passed on to homeworkers. All up, 42 questionnaires were returned.

Demographics of respondent organisations

The majority (80%) of the 471 responding organisations were privately owned (Figure 3), based in Australia and operated overseas (Figure 4), and (49%) had over 1000 employees (Figure 5). The most common industry was manufacturing (35.8%).

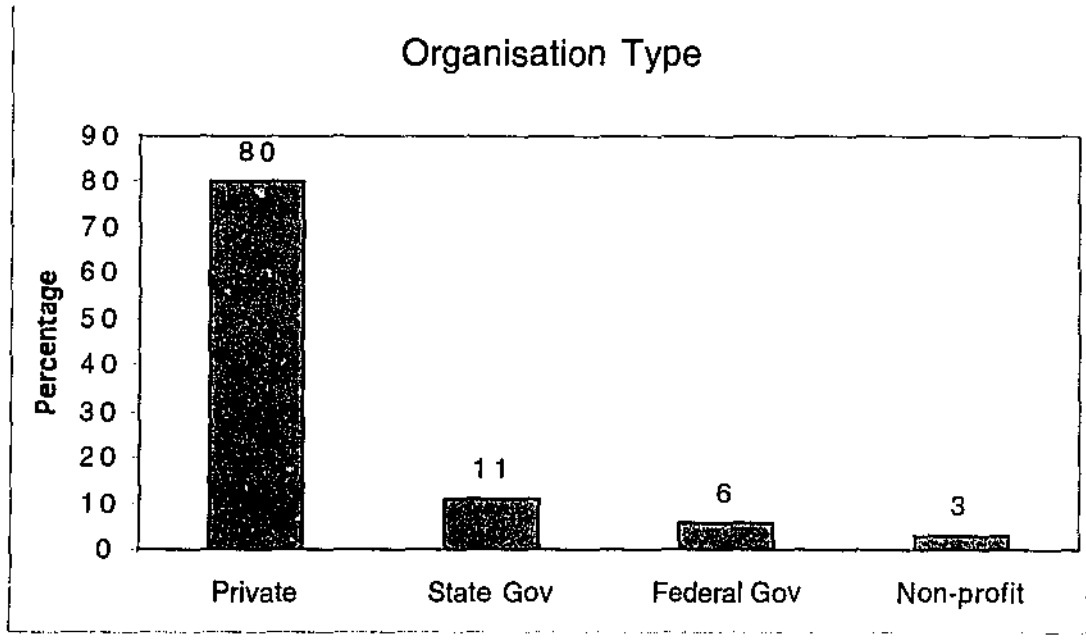

Figure 3. Ownership of participating organisations

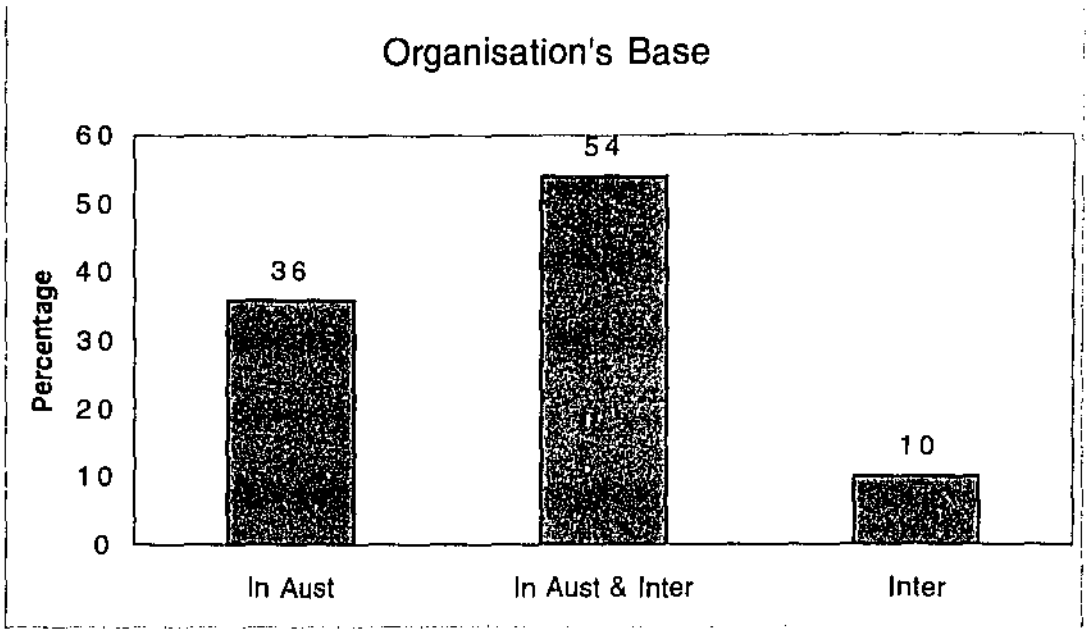

Figure 4. Base of responding organisations

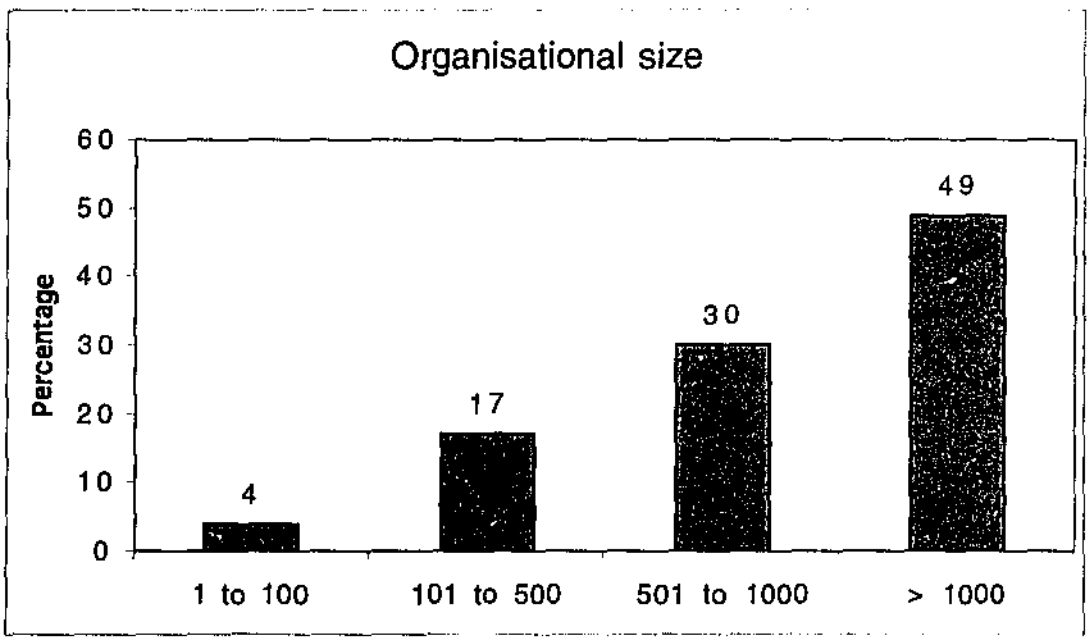

Figure 5. Organisational size

Homeworking practices

Of the organisations surveyed, 72.3% indicated that they did not have any staff working from home. The definition of working at home for half a day or more per week, whether formally sanctioned by company policy or not was used in this instance. The questionnaire also stated that the researcher was not interested in overload work that many people occasionally take home to catch up on, but in normal work regularly done at home.

Organisations with homeworkers indicated that on average around 30 staff work from home, with the range from 1 to 700. It should be noted that the average is very skewed by a number of tertiary institutions describing their academic staff as homeworkers; the median for this question was only 4.

Almost three quarters (72%) of the organisations had formal policies on HBW. The rest had staff working at home on either an ad-hoc basis, or regularly but with no formal procedures in place.

In the main, the three quarters of organisations without HBW programs were somewhat cautious of this work practice. HR managers generally indicated that their organisations would not be supportive of HBW programs, and that it would be unlikely for them to introduce it in the next two years. Based on findings reported elsewhere (Omari & Standen, 2000), these organisations were more conservative in approach, and had more centralised and bureaucratic structures than those with HBW.

The vast majority of organisations saw *childcare* as the main reason for introducing HBW, followed by *travel issues* or *problems*, *pregnancy* or *illness*, *family care*, *disability*, *lowering distractions*, and *skill retention*. It is interesting to note that the bulk of reasons stated relate to employee advantages as opposed to organisational gains such as lowering overhead costs. This along with the small numbers of individuals involved, suggests that the main reason behind HBW is the retention of valued staff.

Benefits of HBW

Organisation survey results

The majority of organisations with homeworkers indicated that they had experienced *increased productivity* and *job satisfaction* (65%), *improved recruitment* and *retention* (45%), *decreased absenteeism* (34%) and *decreased office costs* (20%).

Organisations with HBW programs were asked to comment on the affects of he arrangement on the dimensions of organisational effectiveness: productivity, job satisfaction, absenteeism, turnover and lowering costs. Sixty five percent of organisations that indicated productivity had improved attributed this to: *fewer distractions* and *better use of time*, followed by other factors such as *better morale*, *adjusting time to suit life style*, and *increased flexibility*.

With regard to job satisfaction, *ability to balance home and work life* was seen as a major contributor to success, followed on by *less travel fatigue*, *feeling of being trusted and respected*, *more control*, *uninterrupted time*, and *time not being limited to office hours*. The benefits stemming from job satisfaction would have an impact not only on

the individual but on the organisation as well. Some organisations commented that this made for better quality client service.

Increased retention and recruitment was attributed to *women returning to work* after having children, followed by *increased flexibility*. In the main, organisations that introduced HBW programs were less likely to lose those female employees who found it difficult to balance work and home life. HBW arrangements also allowed for gradual return to work following illness or disability.

Lower rates of absenteeism resulted from the ability *to balance home and work life, increased commitment* and *flexibility*, and *ability to still do some work if ill*. This became quite obvious during the interview phase of the study, where subjects commented time and again that, had it not been for the ability to work from home, they may not have worked on particular days because they were ill or had to care for sick or elderly family members. Some ill staff could not brave the office environment, in corporate clothes but were willing to do what they could in comfortable attire from home. This is beneficial for the organisation in terms of productivity as well as by preventing the spread of contagious illnesses.

Office costs were reported as reduced by the ability *to more effectively use the space*, not needing *an infrastructure for country offices*, and as a result of employees *making use of their own equipment* in carrying out their activities. One organisation had quantified savings of $4200 per employee/per annum. A few organisations commented that no real savings had come about, as the head-office work-site still needed to be maintained in addition to having to set up employees at home. The cost issue is quite a complex area being contingent on many other factors such as whether a personalised

space is maintained in the office, employer's costs in setting up the home work-site, and whether existing equipment or the employees' equipment can be used at home.

Other factors making a successful HBW program related to the *home* and *work environments*, the two contextual dimensions shown in Figure 1. These additional factors were:

- the job lent itself to objective performance management;
- clearly setting out agreements as to which party is to provide the hardware, software and other equipment;
- regular safety audits;
- addressing security issues;
- reviewing arrangements at set timeframes (possibly every 12 months);
- not mixing HBW with childcare;
- keeping open channels of communication between all parties;
- piloting the project prior to full scale implementation;
- setting out guidelines and following up with training;
- management support; and
- consistent and equitable treatment of all applicants for homeworking.

The last was an important point to interviewees. They commented that some employees were denied access to HBW because they did not fit certain categories, for example not a parent, or being a female employee. This produced resentment in the workplace towards individuals who could work from home as well as management and the organisation generally.

Homeworker survey: Descriptive statistics

Homeworkers reported that HBW provided slightly more *job related* (mean = 2.2, where 1 = "benefits increased", and 5 = "benefits decreased"), than *organisational* (2.5), and *personal* benefits (2.6). The standard deviations of results were low (less than 1) in each case.

The following specific benefits showed the greatest improvement:

Table 1. Benefits of HBW

Issue	**Mean**	**Standard Deviation**
Finishing work on or ahead of time	1.7	0.77
Less travel	1.7	0.84
Reduced absenteeism	1.71	0.71
Productivity	1.71	0.71
Satisfaction with work environment	1.71	0.84
Less distractions	1.85	0.99
Job control/increased autonomy	1.88	0.79
Quality of life	1.98	0.81

Demographic Characteristics

Organisation survey results

The survey showed that HR managers of organisations with HBW felt the home, in terms of spouse and family support, was an important success factor. This finding was confirmed by interviewees, who attributed much of the success of the arrangement to understanding and accommodating family members. As well as this, the family members would need to be understanding of the fact that although at home, the homeworkers were to be considered to be at work. Family support relates to the home environment of the individual that was earlier identified as a contextual variable and will be further explored in the next chapter.

Homeworker survey: Descriptive statistics

Homeworkers reported that they spent anywhere between 3 and 75 hrs/week working from home, with an average of 40 hrs/week. None of the homeworkers indicated that they work exclusively from home.

Commuting time to and from work ranged from 10 to 90 minutes. Due to relatively short distances to work in Perth, reduction in the commuting time was not a major reason for working at home. It was convenient, rather than essential for obtaining work. This factor may, however, be of greater importance for disabled employees, or those in larger cities with commuting and traffic problems.

The gender of survey respondents was almost evenly split, 54% female and 46% male. Much of the focus of the responding organisations was in making flexible work

arrangements available to female employees in order to assist in balancing their work and home life. Therefore, it was interesting to discover that almost half of the survey respondents were male. In looking closer at occupations, the male respondents in the main were occupied in professional/sales positions, whereas a good number of the female respondents were engaged in clerical/processing type work.

The majority of respondents (86%) were married or in defacto relationships, with 14% being single. One of the groups cited as unsuitable for HBW is single employees who to some extent go to work to meet social needs (Filipczak, 1992).

Almost three quarters (74.4%) of homeworkers were in the 30 to 49 age group (Figure 6). As single employees are not attracted to HBW, this finding is expected. The majority of employees in this age group would have consolidated their position in the organisation and would not therefore be disadvantaged if not highly visible in the workplace.

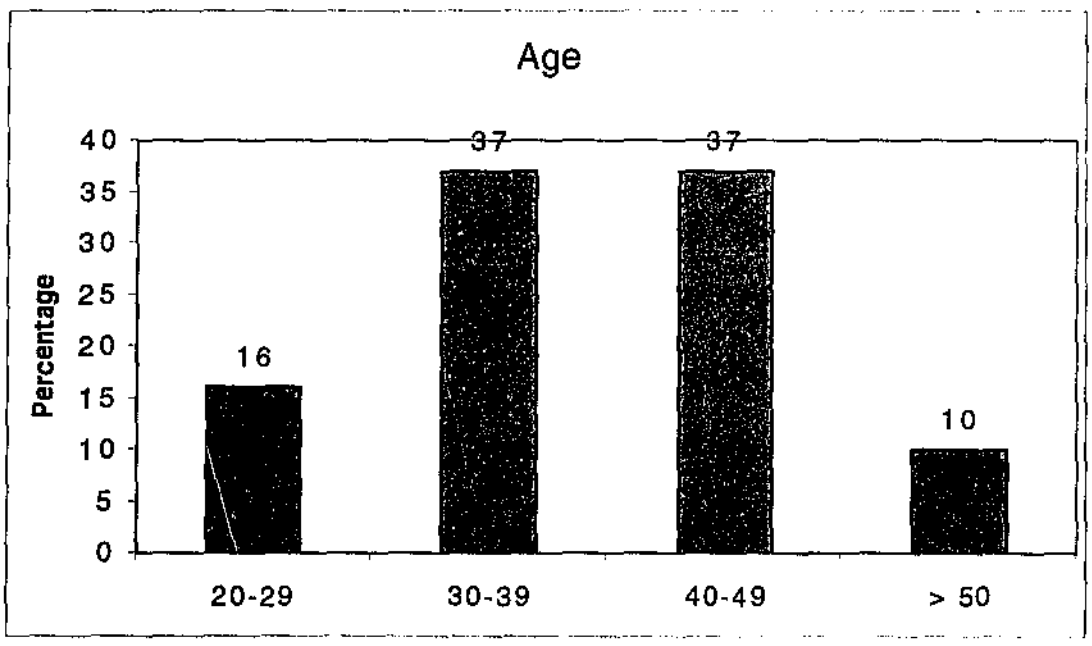

Figure 6. Age groups of homeworker survey respondents

Almost half (48.8%) of the respondents had children living in the same house. Many commented that the success of the arrangements was contingent on their family's support. Some reported that once their family responsibilities were met, they could return to work in the evening. This flexibility allowed them to be more involved in family activities during the day (e.g. attending sports carnivals, picking children up from school and dropping them off).

Most respondents were well educated, 37% with bachelors degrees and 19% with post graduate qualifications (Figure 7). This was a surprising finding in view of the emphasis on low-skilled work in the literature, however reflects the professional occupations of the homeworkers. In the past, work at home has been synonymous with the exploitation of unskilled workers, for example in the fashion and footwear industries.

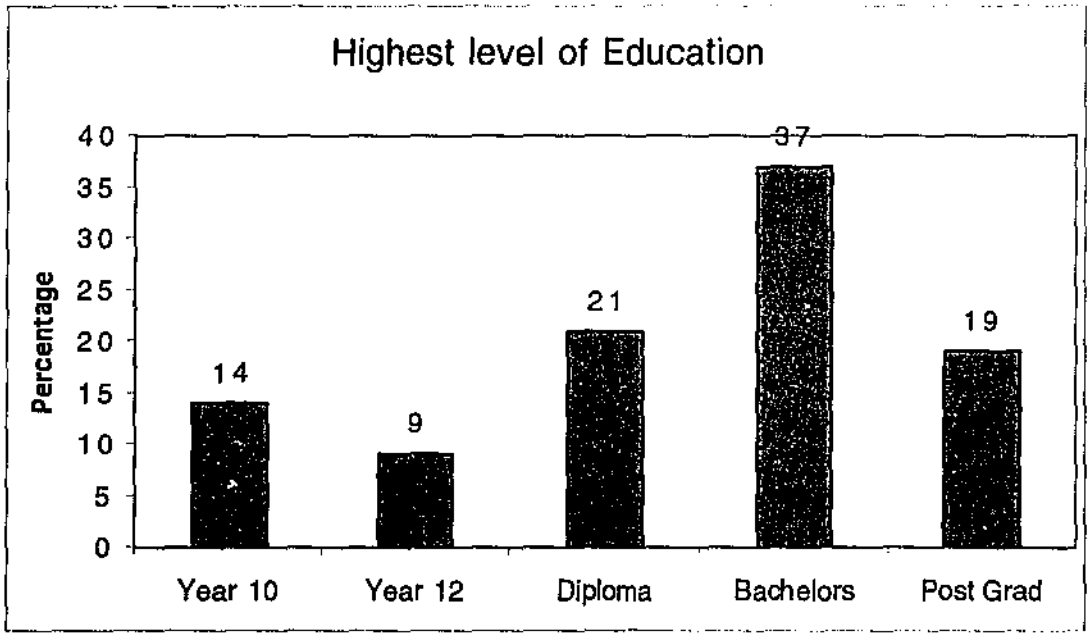

Figure 7. Education level of homeworker survey respondents

The income level of the respondents was in line with the majority being professionals - over 70% were earning more than $40,000 a year (Figure 8). This is also consistent with their age.

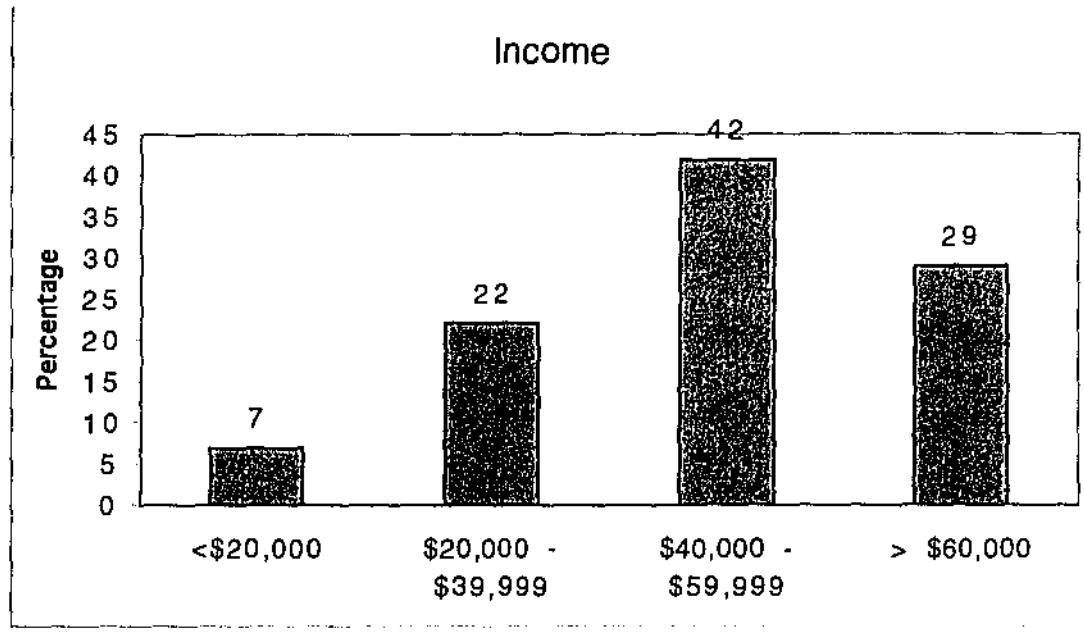

Figure 8. Income brackets of homeworker survey respondents

Homeworkers interviewed had been in their current job between 14 months and four years, and with the organisation from 15 months to 35 years. A few had changed jobs and been promoted whilst working from home. In the main, long term association with the organisation was found to be a success factor (this will be more fully discussed in the next section).

Relationship between demographic characteristics and HBW benefits

Although the descriptive results from the survey and interviews suggest relationships between each demographic variable and benefits of HBW, the only demographic

variable that was linked to benefits was the *number of years an individual had been with the organisation*. The breakdown of the length of service of respondents can be found in Figure 9. There was a significant relationship between this variable and both *job-related* and *individual* benefits ($F = 4.08$, $p = 0.008$, and $F = 2.356$, $p = 0.074$ respectively). It is difficult to generalise by simply stating the number of years someone has to be in a job before they are allowed to work from home, however findings indicate the more familiar an individual is with a job and the organisation, the more benefits gained.

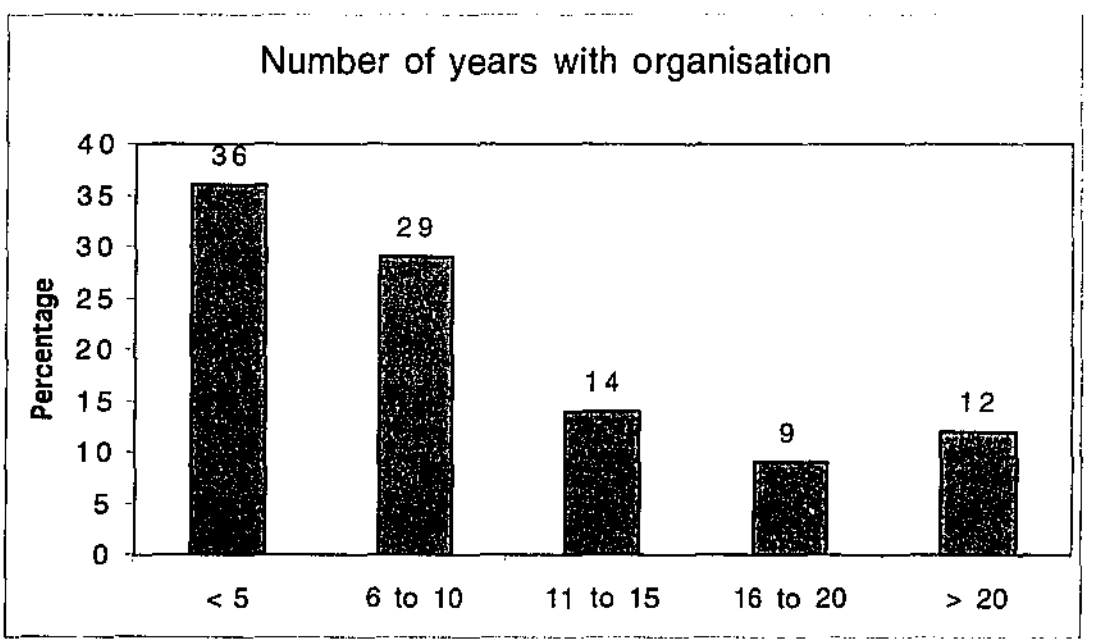

Figure 9. Number of years survey respondents had been with the organisation

It was interesting to note that the other demographic variables: age, income, gender, number of years in the position, marital status, commuting time, and length of work week had no impact on HBW benefits. However, it is possible that the small sample

size reduced the likelihood of significant results in this study. All mentioned criteria have been anecdotally linked to successful HBW in the literature (e.g. Deming, 1994; Olszewski & Mokhtarian, 1994; Schoeffel, Loveridge & Davidson, 1993).

Relationships between demographic and other personal characteristics

As expected, some relationships were detected between demographics and other personal characteristics, notably variables describing *motivation* for HBW (falling within the *psychological profile* dimension). These will be presented in turn, however the significance of these findings will be further explored in the next chapter.

Gender impacted on the importance of *family responsibilities* as a motivating factor for working from home, ($X_m = 2.1$, $X_f = 3.2$, $t = 2.236$, $p = 0.031$). Female respondents rated family responsibilities as more motivating than males. This is consistent with the literature, where males are considered less likely to engage in HBW as a result of family responsibilities (Long, 1987).

Income was another factor related to *family responsibilities* as a motivator for HBW ($F = 2.646$, $p = 0.064$). Low income earners (mostly women working part-time) rated this variable as extremely important. Those more with financial means have more options available to them, particularly childcare and are likely to work at home for other reasons.

The level of education related to several variables:

- *commuting time* ($F = 2.214$, $p = 0.097$): the more educated the individual the less the importance of commuting time as a reason for choosing HBW;

- concerns for *physical health* ($F = 2.830$, $p = 0.039$): this was found to be less important for the lowest and highest levels of education achieved; and

- *study* ($F = 2.744$, $p = 0.044$): this was more important for people working towards their bachelors and post graduate qualifications.

These findings show that the *highest level of education achieved* affects the motivation for HBW.

Age had an impact on *physical fitness* and *family responsibility* as motivators for HBW. Older homeworkers rated family responsibility ($F = 2.124$, $p = 0.097$) and physical fitness ($F = 2.124$, $p = 0.097$) as more important. It is important to ascertain the standing of potential homeworkers in their personal and professional life. Although it may be somewhat intrusive to factor the employee's personal life into the decision making process, these findings indicate that if should not be ignored.

The *marital status* of the respondent was related to:

- *productivity* as a motivator ($X_s = 2.7$, $X_m = 4.7$, $t = 2.656$, $p = 0.042$): this was more important for married respondents;

- *creativity* ($X_s = 2.0$, $X_m = 3.0$, $t = 1.874$, $p = 0.068$): married respondents saw this as more important;

- *peace and quiet* ($X_s = 3.0$, $X_m = 4.0$, $t = 2.193$, $p = 0.034$): again more important for married respondents; and

- *getting away from office distractions*, (X_s = 2.3, X_m = 3.9, t = 2.236, p = 0.067): also more important to married employees.

These findings indicate that employees with partners and family responsibilities may view work in a different light, with the achievement of work objectives paramount. Social needs in the workplace take a back seat to reducing distractions and creating more efficient and effective work practices.

In summary, it can be said that, but for *the number of years the homeworker has been with the organisation*, the demographic characteristics were not statistically related to the benefits gained from HBW. However, it seems that some demographic characteristics can predict workers' motivation for HBW. It is likely that these different motivators would affect how each demographic group views success, but direct evidence of this is beyond the scope of this study.

Competencies

Organisation survey results

Organisations with HBW programs indicated that the competencies required for successful HBW were (in order of importance); *being organised, being good at time management, being results orientated, having a high degree of job competency, having initiative* and *good communication* skills. Being *focused* and *flexible*, and *having a good track record with the organisation*, were found to be beneficial as well. Many of these competencies point to a highly structured work environment, where the individual is able to set goals or has goals set for them, and works towards meeting those goals, at the same time remaining flexible and having the ability to reprioritise where necessary.

Homeworker survey: Descriptive statistics

Homeworkers reported the most important competencies for HBW as: *ability to work with minimal supervision*, *job knowledge*, *self motivation*, and *self discipline* (Table 2). The means were calculated on a scale of 1 to 5 where 1 = Very important, and 5 = Not important at all. The importance of some of the competencies was later found to be job specific – as discussed further in this chapter and expanded upon in the next.

Table 2. Competencies required for effective HBW

Most important	**Mean**	**Standard Deviation**
Ability to work with minimal supervision	1.33	0.57
Job knowledge	1.35	0.69
Self motivation	1.35	0.57
Self discipline	1.43	0.59
Least Important,	**Mean**	**Standard Deviation**
Teamwork	2.96	1.06
Knowing about computer maintenance functions	2.84	0.23
Occupational health and safety awareness	2.71	0.89

The need for high levels of task knowledge is a recurring theme in the findings. This knowledge allows the individual to carry out tasks with minimal supervision or external contact, in turn pointing to a lower need for team skills. The findings point to homeworkers being more reliant on their own skills and knowledge, and as a result thriving in an environment where they can undertake work as an individual (rather than

as a member of a team). This is beneficial in that it allows for setting of performance measures that are directly linked to the efforts and outcomes of the homeworker.

Personal drive is a factor that was also thought to be important for homeworkers, although interview responses provided an interesting twist on this concept. Many interviewees indicated that it was not more difficult to get motivated at home compared to the workplace. However, if they were required to go to the workplace on such days, they would be there physically but may not have been as productive as they may have been at home. At home they would get over the motivation problem by doing other, non-work related tasks, and returning to work when the situation had corrected itself. This flexibility allowed them to make best use of their productive times, by aligning work needs with their changing motivation levels.

Two factors that were thought not to be very important to successfully working at home were *knowing about computer maintenance functions*, and *occupational health and safety awareness*. The former may be a by-product of the actual tasks carried out at home. That is, if the tasks do not require work on a computer, or only require work of a routine nature, then this knowledge is not relevant. Knowledge of how computers work and operate to varying extents are part of most office employee's jobs.

The issue relating to occupational health and safety was an interesting one. Most interviewees indicated that their home offices were set up in the same manner as their office-site workstations. That is, they had ergonomic furniture that was set up correctly. There were homeworkers who reported that they worked on the dining table, but for most this was a temporary arrangement pending the set-up of a dedicated area. Ergonomics aside, the one issue that was raised by most homeworkers was the tendency

to over-work. This was as a result of work always being available and readily accessible, for most just a room away. This accessibility would pose serious problems for task oriented individuals. In most cases family responsibilities in the evening tempered their enthusiasm for work. However, there were others who returned to their work once their family commitments for the evening were met.

Relationship between competencies and benefits

A large number of competencies predicted benefits from HBW in individual, job-related and organisational areas (Table 3). Three that were common to all areas were: *initiative*, *discipline*, and the *ability to work with minimal supervision*. These point to requirements for an individual to be a self-starter and able to complete discrete elements, or the whole job, without contributions from others.

Table 3. Correlation between competencies and HBW benefits

Individual benefits	**r**	**p**
Time management	0.556	0.000
Self discipline	0.493	0.001
Initiative	0.471	0.003
Self motivation	0.402	0.011
Not easily distracted	0.334	0.038
Assertiveness	0.305	0.059
Organisational skills	0.304	0.060
Enjoying job	0.289	0.074
Scheduling	0.287	0.076
Ability to work with minimum supervision	0.280	0.084

Job-related benefits	**r**	**p**
Believing in job at hand	0.346	0.029
Self discipline	0.343	0.030
Scheduling	0.322	0.043
Initiative	0.311	0.051
Planning	0.278	0.086
Ability to work with minimum supervision	0.275	0.086
Organisational benefits	**r**	**p**
Initiative	0.468	0.002
Self motivation	0.451	0.033
Ability to work with minimum supervision	0.421	0.006
Self discipline	0.411	0.008
Scheduling	0.406	0.008
Focused	0.357	0.022
Organisational skills	0.322	0.040
Time management	0.281	0.075
Usage of computer applications	0.279	0.077
Planning	0.269	0.089

Assertiveness was found to be a necessary for realising individual benefits. Many interviewees commented that at the workplace it would be easy to drop by people's desks and either seek additional information or clarify points as necessary. However remote work does not provide this luxury. Individuals need to be much more efficient in the way they collect information needed to carry out their work, and this may at times require a degree of assertiveness in getting information.

Another factor related to individual benefits was *the ability to concentrate and not be easily distracted.* Although, there are distractions everywhere, at the home-site the range of distractors may be significant. Distractions may appear in the form of family members or friends who drop by for a chat, just because the individual is home, without a true appreciation that the homeworker is at work. This was something that the majority of the interviewees had to contend with. Distractions were also reported to take the form of food, television, neighbour's noise, and so on. At some stage almost all interviewees acknowledged these, an excellent first step in dealing with them. Most indicated that from time to time they give in to the temptations, but will make the time up later to deliver the work in a timely manner. This is where the true flexibility and effectiveness of this work practice can be seen. *Time management, scheduling* and *planning skills* were also found to be significant for maximising HBW benefits, yet again suggesting a structured approach to work.

Believing in the job at hand was found to be important for job related success. Most believed that they have a role to play in meeting the corporate goals, and were grateful of being given the opportunity to continue working under a modified arrangement. Similarly, most interviewees commented that they really enjoyed their jobs, a factor that was found to be important for personal success.

In order to achieve organisational benefits it is necessary to equip the homeworkers with the required skills and knowledge. These could range from *job knowledge* through to *skills necessary for usage of required computer applications.* At the workplace it is easy to find people for support in these areas. However, at the home-site added complexities, such as time of day, and communication limitations may make this issue more complicated.

In summary, it can be said that job knowledge contributes to making HBW beneficial. Skills relating to the organisation of work (e.g. time management and planning) and communication skills, specifically assertiveness, can be viewed as essential for success as a homeworker. Having initiative and discipline, and being focused and able to work with minimal supervision are also requirements for success.

Psychological profile

Organisation survey results

Organisations with HBW programs indicated that the most important personal characteristics for success in HBW were (in order of importance)*: self motivation, discipline, requiring minimal supervision, trustworthiness, honesty,* and *being a self starter.* Other characteristics thought to be required for homework were; *being reliable, having corporate commitment, maturity, having a strong work ethic,* and *confidence.*

Homeworker survey: Descriptive statistics

On a scale where 1 = Strongly agree, and 5 = Strongly disagree, MNQ results showed mean scores of 2.4 for *Achievement orientation,* 2.8 for *Dominance*, 3.2 for *Affiliation,* and 3.3 for *Autonomy* (high scores in this instance indicate strong motivation). The extreme items on these are shown in Table 4.

Table 4. MNQ findings

Achievement sub-scale	**Mean**	**Standard Deviation**
Try hard to improve on past performance at work	1.90	1.11
Prefer to be own boss	1.93	1.06

Autonomy sub-scale	Mean	Standard Deviation
Disregard rules and regulations that hamper personal freedom	3.83	1.18
Don't consider self a team player	4.2	1.08

It is interesting to note that survey respondents had a huge drive for achievement. This demonstrates high commitment to the work, and to the organisation and its goals. In the main, these individuals also have a preference for being their own boss, but are able to work within organisational guidelines.

The results also suggest that successful homeworkers remain connected to the organisation, even though they are engaged in remote work. The *autonomy* scale results suggest that homeworkers consider themselves a part of the team, and are willing to abide by organisational procedures and rules even at their home work-site.

The nAch scale showed the following mean scores for the sub-scales: *Excellence* (mean = 1.6), *Mastery* (2.3), *Dominance*, *Competitiveness*, and *Status aspiration* (2.8), *Work ethic* (3), and *Acquisition* (3.1), where 1 = Strongly agree, and 5 = Strongly disagree (high scores in this instance indicate strong motivation). The extreme items on these scales are shown in Table 5.

Table 5. nAch findings

Work Ethic sub-scale	**Mean**	**Standard Deviation**
I can easily for a long time do nothing	4.63	0.70
Competitiveness sub-scale	**Mean**	**Standard Deviation**
I judge my performance on whether I do better than others rather than just a good result	3.71	1.19
Excellence sub-scale	**Mean**	**Standard Deviation**
I find satisfaction in working as well as I can	1.54	0.71
I hate to see bad workmanship	1.63	1.02
I get a sense of satisfaction from saying I've done a good job	1.68	1.01
Work Ethic sub-scale	**Mean**	**Standard Deviation**
I get bored if I don't have something to do	1.80	1.25
Mastery sub-scale	**Mean**	**Standard Deviation**
I would like to work in a situation which requires a high level of skill	1.80	0.93

The findings in Table 5 indicate that survey respondents are hard task masters. They set themselves high goals and expectations and work extremely hard to achieve them. They display a high degree of integrity, in turn showing high levels of commitment to the job and organisation.

Of the personality traits measured by the 16PF and the MBTI, those with the strongest deviations from the midpoint are shown in Table 6.

Table 6. Findings relating to personality traits

TRAIT							MEAN	ST DEV
Flexible	1	2	3	4	5	Rigid	1.98	0.71
Trusting	1	2	3	4	5	Suspicious	2.53	1.05
Reserved	1	2	3	4	5	Outgoing	3.47	0.96
Deep Interests	1	2	3	4	5	Broad Interests	3.49	0.98
Timid	1	2	3	4	5	Venturesome	3.67	0.75

The MBTI and 16PF scales generally showed that homeworkers were fairly well within the middle range of personality types, but had a tendency to being trusting, outgoing, venturesome and to have broad interests. Their most outstanding characteristic was flexibility, as might be expected.

From these results homeworkers can be described as mildly extroverted. This is an interesting finding, as much of the literature points to introverts (e.g. Filipczak, 1992) and conservative employees as being more suitable for HBW. The study sample was composed of mostly flexible, open-minded people who have a trusting nature, and are more in tune with the outside world. That successful homeworkers have broad interests could indicate that these interests are a coping strategy for isolation. That is, the homeworkers who get their energy from external sources are better able to find interests outside the confines of their work environment. They cope better with isolation, as they are more resourceful in locating alternative sources of socialisation.

The final psychological scale identified specific reasons for choosing HBW. The main motivators were *productivity* (mean = 4.3), *peace and quiet* (3.9), *too many distractions* at work (3.7), and *comfort at home* (3.6), where 5 = Extremely important, and 1 = Not important at all. Other reasons quoted included the ease of international communications outside standard work hours, and the ability to remain part of the workforce despite disability and illness. Yet again, the majority of these factors relate to job and organisational success.

Relationship between psychological profile and benefits

Psychological profile was clearly related to the benefits derived from HBW (Table 7). Interestingly, the more *trusting* individuals perceived more benefits in all three areas – individual, job-related and organisational.

Table 7. Correlation between personality and HBW benefits

Individual benefits	**r**	**p**
Need for autonomy	0.461	0.004
Being trusting	0.386	0.015
Being practical	0.364	0.023
Basing decisions on facts	0.344	0.032
Need for affiliation	-0.299	0.072
Job-related Benefits	**r**	**p**
Being trusting	0.362	0.022
Tough mindedness	0.292	0.067
Dominance	0.261	0.099

Organisational benefits	**r**	**p**
Being trusting	0.486	0.001
Need for autonomy	0.345	0.029
Need for affiliation	-0.446	0.005

Individual and organisational benefits were greater for those with less need for *affiliation*, and *autonomy*. That is, successful homeworkers do not have high affiliation needs. However, it is interesting to note that they do still consider themselves connected to the organisation, and part of the team. Individual benefits accrued most for those who were *practical* and *based decisions on facts*. Both of these criteria point to individuals who are systematic and logical in work style.

Job related benefits were also predicted by *tough mindedness* and *dominance*, although these can be considered beneficial in any work setting, homebased or conventional.

In summary, it can be said that the psychological make-up of the individual to some extent determines the extent and nature of benefits gained from HBW. Findings indicate that autonomous and dominant employees with low affiliation needs, who are trusting, tough minded and practical, and who base their decisions on facts, are likely to be effective homeworkers.

Occupational variables

Organisation survey results

Organisations indicated that the type of occupations suitable for HBW are those which are professional and relatively senior within the organisation. Having discretion over the work process was a thought to be essential for success. This is in line with the high need for autonomy and independence shown in the homeworker survey.

Organisations reported that the majority of the jobs conducted fully or partially from home were of a clerical, information systems/information technology (IS/IT) or managerial nature respectively. It is interesting to see that in practice around a quarter of people working from home were engaged in clerical, or routine administrative type jobs. This could point to jobs being suitable at the two ends of the continuum: at one end complex jobs requiring independent thought and action, at the other end routine jobs with limited discretion. Another way of looking at the situation could suggest that jobs with definite, measurable outcomes are most suitable for homebased work.

Respondent organisations reported that the majority of the homeworkers were using the telephone, followed by electronic links and fax, to communicate with colleagues (Figure 10). The technology used is really a function of the job and the amount of time spent at home. The respondents were engaged in work ranging from full on-line work through to only using the phone at the home work-site.

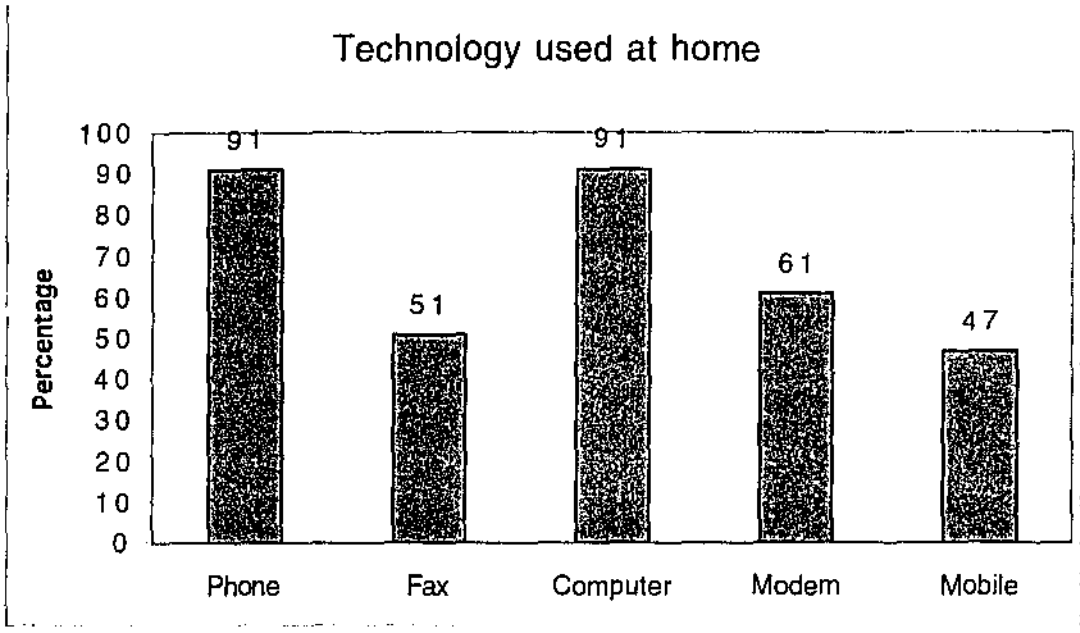

Figure 10. Technology used at home as reported by organisations

Homeworker survey: Descriptive statistics

The majority of respondents (61%) were employed in professional occupations, mainly in managerial capacities, followed by coordination, sales and research related work (Figure 11). These occupations are mainly unstructured in nature and require well-developed conceptual skills for example in legal, policy, and research areas.

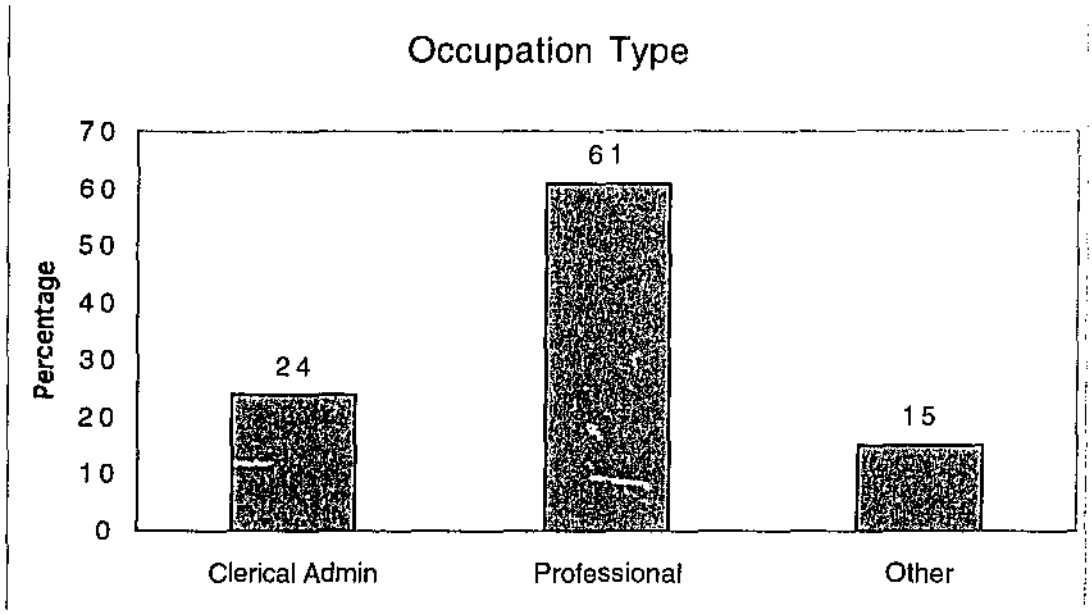

Figure 11. Occupation type as reported in the homeworker questionnaire

The majority of respondents indicated they do their *reading* at home (76.7%), followed by *analysis* (60.5%) and *planning* (51.2%). *Composing* and *designing* were not frequently carried out at home (16.3%, and 25.6% respectively – as seen in Figure 12). This finding was in part a function of the occupations of the respondents. That is, not many respondents indicated that they were engaged in this line of work.

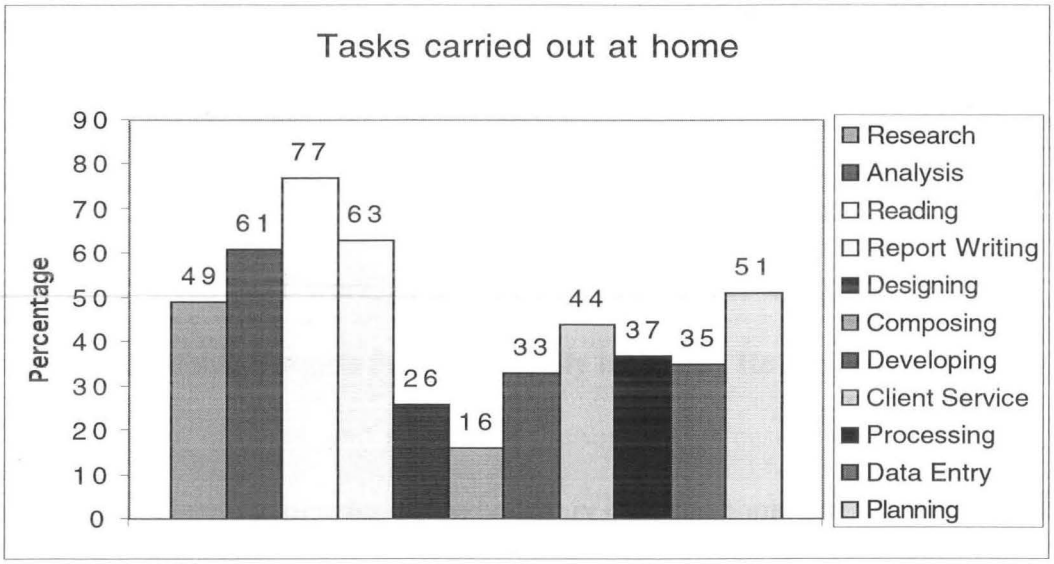

Figure 12. Tasks carried out at home by survey respondents

Almost all respondents (90%) used computers and phones to carry out their responsibilities from home. This is not surprising for any job in the current environment. Whatever the job, there needs to be some connection and continuity with other jobs in the organisation. Half of the respondents (50%) had electronic access to the systems at head-office. Another 20% transferred work completed at home to central systems using floppy discs. The latter commented that, in most circumstances, remote access was not available to the central work-site for technological or security reasons.

Around one third of the homeworkers (35.7%) had been with their organisations for less than 5 years, and 64% had been with their organisations less than 10 years. This was in line with HBW being more available to experienced and senior staff, and dependant on job expertise.

Around 20% of the respondents were working part-time. The large number of hours spent "at work", mentioned earlier, generally point to more senior positions that require a high degree of availability and input.

One interviewee commented on the blending of work, learning and home life. This individual was involved in IT work, of a mainly on-line nature. He also commented that his work is something that gets the whole family involved. He encourages them to search the Internet for answers, and make contributions. This case was interesting in that, it was an example of the blurring of the boundary between home and work.

Occupational variables and benefits

A wide range of occupations were equally benefited by HBW, as neither *occupation type* (clerical versus professional); *linkage to office* (electronic versus manual); carrying out work involving *analysis*, *reading*, *report writing*, *designing*, *composing*, *client service*, *processing*, and *planning* were related to perceived benefits. Based on these findings it would therefore be inaccurate to generalise about occupation types. However, it would be necessary to consider each occupation, and work structure on their own merits when determining if the job would be suitable for homebased work.

It was found that individuals conducting *development* work from home were less successful in attaining organisational benefits than others ($X_{dev} = 2.7$, $X_{not\ dev} = 2.3$, $t = 1.675$, $p = 0.078$, where 1 = Success increased, and 5 = Success decreased). This was an interesting finding, possibly pointing to the fact that those involved in developing products or ideas need other people to bounce viewpoints off.

With regard to attaining *individual benefits*, three task areas were related:

- *research* (X_{res} = 2.5, $X_{no\ res}$ = 2.8, t = 2.431, p = 0.005): those who research from home reported more benefits others.

- *development* (X_{dev} = 2.8, $X_{no\ dev}$ = 2.6, t = 1.4.9, p = 0.004): those who don't do development work from home reported more benefits than those who do.

- *data entry* (X_{de} = 2.5, $X_{no\ de}$ = 2.7, t = 1.372, p = 0.082): those who do data entry from home reported greater individual benefit than others.

These findings are interesting in that they reflect work at two extremes of the complexity continuum. Data entry work is generally low skilled, highly structured and has readily identifiable outcomes. Research work is much less structured, and is generally more conceptual. This support earlier findings favouring occupations at either end of the complexity continuum as more suitable for homebased work.

Another observation is that unstructured work, such as research produced organisational and job-related benefits, while data entry work produced benefits for the individual. This may point to demographic differences (e.g. gender) between individuals engaged in these types of work. Overall, a higher proportion of women were found in more routine, highly structured jobs.

In summary, it was found that occupations at two ends of the continuum, that is highly structured and highly unstructured are suitable for HBW. At the unstructured end, suitable occupations are those with a large amount of discretion. These are usually

more senior positions within organisations requiring a high level of conceptual and unstructured work. However, these jobs will need to have clear outcomes, which in itself is an important requirement. Routine jobs of a highly structured nature can also have clear outcomes, and these were also found to be suitable for HBW. However, the supervision requirements for the two types of occupations will naturally vary.

Job Design

Organisation survey results

The organisational survey indicated that *self contained work producing discrete results*, and *work which requires minimal input from others* is suitable for HBW. Organisations also indicated that staff working at home needed to communicate with colleagues and clients "moderately", pointing to self contained jobs in the main.

Homeworker survey: Descriptive statistics

Respondents to the homeworker questionnaire rated the importance of the dimensions of the Job Characteristics Inventory (JCI) as follows: *Task identity* (mean = 4.4), *Autonomy* (4.2), *Dealing with others* (3.8), *Feedback* (3.5), *Friendship* (3.4), and *Variety* (3.1), where 5 = Important component of the job, and 1 = Unimportant component of the job. The standard deviation for these values was relatively low.

Survey respondents had extreme scores for the elements shown in Table 8.

Table 8. JCI findings

Task Identity sub-scale	**Mean**	**Standard Deviation**
See projects through to completion	4.53	0.74
Opportunity to complete work started	4.44	0.63
Opportunity to do job from beginning to end	4.23	0.95
Autonomy sub-scale	**Mean**	**Standard Deviation**
Left on own to do work	4.40	0.93
Dependant thought and action	4.07	0.96
Do job independent of others	4.05	0.92
Variety sub-scale	**Mean**	**Standard Deviation**
Similarity of tasks in working day	2.91	0.89
Repetition of duties	2.58	1.07

With regard to *task identity*, the majority of homeworkers were engaged in whole jobs. That is, they had the opportunity to complete a whole cycle of work. This is not a characteristic of piece-work, and therefore points to more senior jobs with a good degree of authority. The findings for the *task identity* dimension were similar to those for *autonomy*, where survey respondents reported stand-alone work, with little need for the input of others. Moderate scores on the *variety* dimension may also suggest unstructured work with a moderate degree of complexity.

Relationship between job design and HBW benefits

The relationships between the dimensions of job design and HBW benefits are shown in Table 9.

Table 9. Correlation between job design and HBW benefits

Individual benefits	**r**	**p**
Task identity	0.461	0.003
Feedback	0.322	0.046
Job related benefits	**r**	**p**
Task identity	0.280	0.081
Organisational benefits	**r**	**p**
Task identity	0.415	0.007
Feedback	0.311	0.048

Benefits to individuals, jobs and the organisation were reported by those homeworkers engaged in "whole jobs", where they are responsible for the work from beginning to end, and have some decision making powers. Like others, this finding points to jobs that are more complex in nature, and require some degree of conceptual ability.

Feedback was also found to correlate with individual and organisational benefits. Greater benefits were found with greater ability to interact and form relationships with people in the workplace. This is a significant finding as, contrary to discussions in the literature, homeworkers do not seek to isolate themselves from the workplace. Continuity and connection with the office and colleagues appear to be important for

success of HBW arrangements. This is in accordance with the findings relating to communication skills, and workers' ability to relate to the organisation and its culture.

In summary, the significant findings relating to job design point to the suitability of whole jobs, were the individual has a good degree of autonomy and discretion. This, as well as the ability to form relationships with people in the office would maximise benefits gained from HBW.

6. FINDINGS

Conventional recruitment and selection processes are aimed at attracting and retaining those who would be superior in performance. This is generally attained by determining the degree of person-job fit. A careful analysis of the job is conducted, with the aim of developing a job description and job specification. The job description provides information on the job itself, that is: duties, tasks, reporting arrangements, and environmental conditions. The job specification focuses on qualifications, personal characteristics, including; aptitude, attitude, and abilities required to successfully carry out the duties of the job (Kramar, McGraw, Schuler, 1997, p. 265).

To date, industry analysis (Standen & Omari, 1997) and a review of the relevant literature shows only ad-hoc arrangements for selecting employees for HBW. The findings of this research indicate that management perception towards this work practice, in conjunction with a web of other organisational factors including politics, competition, and culture dictate the approach taken by organisations towards HBW.

Existing HBW arrangements range from informal, and even spur of the moment arrangements, through to instances where it is highly formalised through a policy and monitored on a regular basis. In either situation, there is little evidence that much thought and effort is given to determining the true suitability of the individual or the job itself to this work arrangement.

This research aimed at identifying the base criteria that impact on the success of HBW arrangements. In line with accepted selection processes, the focus was on the match

between the person and the job. This was determined by assessing benefits from the HBW arrangement against individual and job characteristics. Success was measured in a broad sense, where benefits were assessed at the individual, job-related and organisational levels. It is believed that measurement at these three interrelated levels portrays a much more realistic picture of success than in previous studies.

This chapter will crystallise the key findings from this research. In doing so, it will draw on findings from each of the three phases of the study. As well as focusing on the key variables, that is personal and job characteristics affecting the success of HBW, other influences in the work and home environments will also be considered. The chapter will conclude with a discussion of future directions in HBW research.

Prevalence and success of HBW

The results indicate that HBW seems to be more prevalent in private enterprise, mainly in large organisations with overseas and Australian operations. This is an interesting finding given that the Australian HBW Award was put in place in February 1994. Although this Award only applied to Commonwealth Public servants, its formalised nature should have made HBW more popular in the Australian Public Service (APS) generally. Homebased work arrangements are now being pursued at the enterprise level as part of Agency Agreement discussions for individual Commonwealth government departments.

The bureaucratic nature of the public service in itself may have been a large barrier to implementation of HBW. From another perspective, private organisations operating in an international arena may need to take further risks, and engage more innovative strategies to remain competitive. HBW may be considered one of these.

The focus of strategic human resource management is to achieve organisational goals and objectives through the alignment of individual and organisational goals (Stone, 1998). In this domain, each individual employee has a role to play. Greater effort and commitment to the organisation have long been linked to increased job satisfaction, low absenteeism and turnover, all that have an impact on the attainment of organisational goals (Robbins, 1996). Improving an employee's individual circumstances, and conditions of work can have a direct impact on these success factors. HBW is a practice that can allow both parties the flexibility to better attain and align their goals.

For example, as reported in this research, an employee working from home gets more peace and quiet as a result of less disruption. Their productivity is therefore higher than at the conventional workplace. The relaxed, comfortable and familiar home environment is a contributor to better job and organisational outcomes. Working at home gives the individual additional flexibility in meeting family commitments, such as walking children to school and back. As well, society as a whole benefits from less traffic on the roads, and therefore less pollution and congestion. An individual enjoying this work arrangement would not be quick to leave an employer who would give them the chance to balance their personal and work life, thus improving retention on the part of the employer.

Despite many success stories and potential benefits on both sides, there seems to be much scepticism and misinformation about HBW. This is not surprising when managers until recently were told to "manage by walking around", being visible, and leading by example. HBW requires a paradigm shift where employees need to be viewed as motivated, dedicated, and not requiring face to face contact to operate effectively. Much of the resistance to HBW in organisations seems to stem from lack of

trust, and fear of the loss of power (Lamond, 2000a; Ommeren, 2000; Tregakis & Daniels, 2000). There is no simple answer for this other than that HBW should not be implemented in isolation. Cultural shift, in terms of attitudinal and behavioural change is required to align this work practice with organisational directions and other HR activities. Once this is done, the rates of acceptance should improve.

Another way of improving the image of HBW is through selecting appropriate individuals and jobs at the pilot study or implementation stage. If the person-job-HBW fit is done correctly, the chances of success are high. This will then send clear messages to the sceptics and critics in the organisation. However to get to this point, there is a need to initially identify "who" in terms of employees, and "what" in terms of jobs, are suitable.

Findings of this research indicate that certain personal and job characteristics of the homeworker affect the benefits gained from HBW (Figure 13). For each dimension, findings from all three phases of the study are covered.

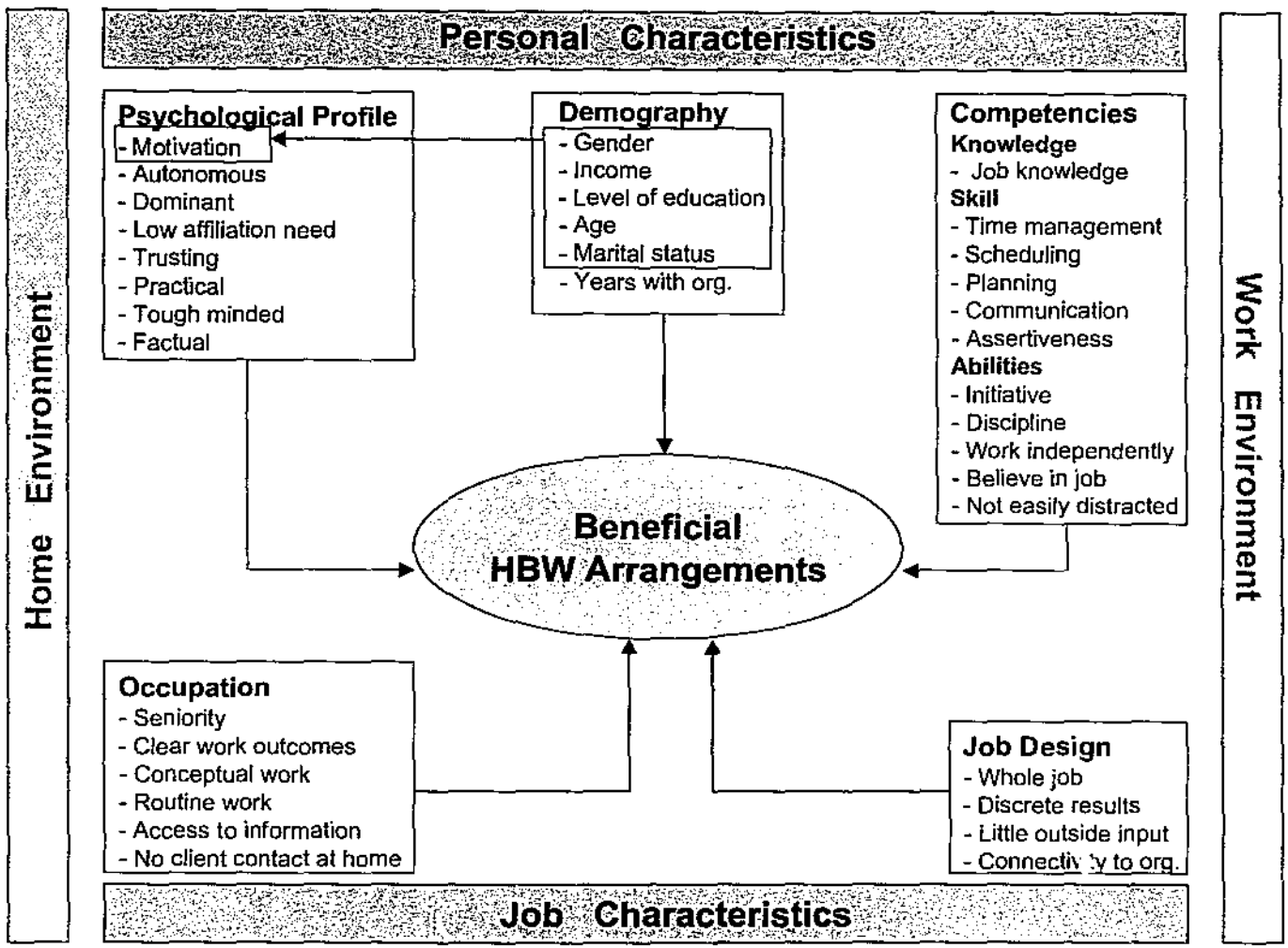

Figure 13: HBW Mode

Personal characteristics

Personal characteristics of homeworkers have received much more attention in the literature than job characteristics (e.g. Bailyn, 1988; Evans; 1993; Filipczak, 1992; Kinsman, 1987; Long, 1987; Olson, 1989). However, much of the discussion is based on anecdotal information or on studies that have not systematically evaluated personal or job factors. Findings from this research indicate that the individual is indeed a key to the success of HBW. In addition, it is possible that shortcomings in personal factors can be remedied by training. This section examines each of the personal factors in Figure 2, based on which the refined model (Figure 13) was developed.

Demography

The primary aim of this study was to determine the relevance of the factors shown in Figure 2 to predict success in HBW, in individual, job-related or organisational terms. However, the only statistically significant factor was the *time in the organisation*, which was related to success for individuals and in jobs. Although this research did not aim to identify the optimum number of years of service, it was discovered that the longer the individual had been with the organisation, the higher the chances of success in meeting individual and job-related goals. Familiarity with the organisation is more important than familiarity with the job itself as the latter did not yield any significant results in terms of benefits. The individual needs to be known by the organisation, and to know the organisation well to maximise the benefits of HBW.

Although significant relationships were not detected between other demographic characteristics and benefits of a HBW program, a few are worth exploring further.

The failure of other factors to be significant is comparable with Olszewski and Mokhtarian (1994) who found that age, gender, and the number of children in the household did not have a significant impact on telecommuting benefits. However, these variables are raised in other studies (eg Deming, 1994; Olszewski & Mokhtarian, 1994; Schoeffel, Loveridge & Davidson, 1993) and the present findings for gender, family status and age indicate that HBW is chosen for different reasons, even though the groups identified by these variables do not report greater benefit than others.

Gender has been a contentious issue in HBW. Therefore, it was interesting to see that there was an even gender mix in respondents, although it is important to note that a convenience sample was used in this study. As with traditional flexible work arrangements it has been assumed that the main group of employees benefiting from HBW are women. While gender was not related to the benefits gained, males and females did have different reasons for choosing HBW. For the latter, balancing work and family was the main incentive, whereas for male respondents work-related issues, such as quiet conditions, took precedence. A study of Information Technology (IT) professionals in Singapore came to similar conclusions (Teo & Lim, 1998). It also appears that male and female homeworkers may be faced with different personal issues. The following interview quote raises an interesting point:

> *For a male working from home ... this is going to sound very sexist, but the only other people around are basically females, so if I drop the kids at school, ... 99.9% of mothers are dropping kids at school as well ... I can't go around and have social coffee with the mothers. I don't have the same opportunity for socialisation.*

Where female homeworkers may be able to satisfy their socialisation needs through friends, neighbours or other females, male homeworkers may feel more isolated. This

is an especially important issue as one of the most quoted reasons for failure of HBW is isolation (Filipczak, 1992).

There is also the issue of differential treatment of male and female applicants for HBW. A few examples were cited of male employees wishing to work from home, but whose requests had been rejected. This was found to cause bad feeling in the workplace.

Regarding family status, more than 80% of the survey respondents were living with their spouse, and almost half had children. The literature asserts that HBW is not suitable for single employees (e.g. Filipczak, 1992), as one of the reasons they come to work is to socialise. It is assumed that married employees or those in a relationship have met this basic need, and can therefore work in a more isolated environment.

The following quote from a single homeworker gives a different perspective on the situation: *"if I had any responsibilities, like a family, kids, in my opinion, I would say that that would interfere with my work life. I don't think you can do both"*. This quote was in the context that family and work responsibilities may be hard to separate at home. Again, it may be that while family status did not predict the benefits derived from HBW, those with and without families may seek different goals from HBW.

Family support and personal characteristics (e.g. self-discipline) also influence the effectiveness of HBW. During the interviews, the importance of family support was a recurring theme. The following quote from a respondent captures the essence of this;

> *the reason I have been able to work from home is that I have an exceptional daughter who sleeps during the day and a very supportive husband who enables me to work at night, if necessary, so I am able to fit my hours around my personal lifestyle*

The home environment was found to be a dimension worthy of attention in assessing benefits gained from HBW. There is a relationship between demographics, and the resulting home environment (e.g. the degree of support from other people, spouse/partner and children), as well as the organisation of the work-space at home. A discussion of the home environment will follow later in this chapter.

Middle-aged homeworkers constituted the bulk (75%) of the survey respondents. There is a loose relationship between the age and income of survey respondents as more than 70% were in high-income brackets. This in itself indicates that the majority of employees engaged in HBW have established themselves within the organisation, and are in relatively senior positions. More than half (56%) had tertiary qualifications, which reinforces previous points.

As far as commuting goes, it seems that in Australia commuting time and distance does not appear to be a main motivating factor. This result may have been skewed by the large number of Western Australian (WA) based respondents. Commuting may be a bigger issue in larger eastern states centres in Australia. However, in WA due to relatively low population in the metropolitan area (around 1 million), and relatively short travel distances, commuting was not identified as an important variable. Research from the US (Olszewski & Mokhtarian, 1994), and Europe (Bailyn, 1988), especially Scandinavia (Teleworking in Europe: Part One, 1996) indicates that population, weather conditions, and pollution have made commuting difficulties a reason for HBW.

Average work-week in hours, and the actual amount of time spent at home working did not turn up any significant relationships with benefits. This indicates that the actual time spent on work activities is not a success factor in itself, however evidence from the

interviews suggests that face to face contact with colleagues provides employees with information to more effectively carry out their duties.

Almost all interview respondents commented that the success of the HBW arrangement depended on an appropriate mix of time spent at home and at the office. There was a strong belief that continuity, in terms of maintaining physical links with the organisation and personal relationships at the work place, was a condition of success.

In summary it can be said that most demographic variables did not predict success in HBW. Only organisational tenure was a significant influence on success. Gender, income, level of education, age and marital status can be seen as indirectly influencing success affecting the motivation to work from home.

Competencies

Competencies which made HBW more beneficial were: job knowledge, communication skills, assertiveness, time management, planning, scheduling, initiative, discipline, believing in the job at hand, being able to work independently, and not being easily distracted. These competencies point to a structured and disciplined approach to work. Each competency, and its relationship to HBW benefits, will be explored further in this section.

The significance of organisational tenure and understanding of, and atunement with, environmental conditions and the organisational culture has been previously discussed. However, the importance of knowing what is required to be done should not be underestimated, this is in line with findings from other studies (e.g. Alvi & McIntyre, 1993) One homeworker commented, "*You have to know exactly what your job is going*

to be today, and get stuck into it". High job knowledge suggests a more self-reliant employee.

The skills identified by participating organisations as essential for successful HBW revolved mainly around planning, organising, and goal setting, all of which suggest a structured yet flexible approach to work. These do not vary significantly from other assertions (e.g. Gray, Hodson and Gordon, 1994). The following quote sums up the requirements well:

> *I have endeavoured to set-up a program that has been quite rigid, especially during the day when the baby is asleep ... you have to be highly structured with everything that you do, with your housework, with your leisure time, and with the work that you are required to complete ... have to be adept at time management.*

Many of the interviewees commented that good communication skills were essential for HBW. As the opportunity for face to face contact was seen to be limited, there was an expectation that any communication that took place, whether written, or oral, must be effective. One homeworker extended this skill to receiving information and stated "*If your supervisor ... gives you an instruction ... they are not just sitting around the corner and you can't go and enquire of them any time during the day. I think you have to be good at communicating and good at listening.*"

Assertiveness was yet another skill that was identified with successful HBW. Assertiveness can be seen to be related to effective communication skills. As the opportunities for communication may be limited, it is essential to attempt to get the required information across, or make oneself understood well. Therefore the ability to assert oneself is beneficial

Homeworkers indicated that the most important ability required for successful HBW was the ability to work with minimal supervision. By design, HBW would be suitable for people who would be self motivated, disciplined and trustworthy, and therefore have the ability to work on their own. The following two quotes stress the importance of this ability:

> *Have to be very focused on what you are doing. When you are out of the workplace it is pretty easy to slack off. Don't think it is the sort of thing you can hand around willy nilly. I'm very trusted by the organisation and certainly by my manager. Have to be clear on what you are doing*

> *To be honest if you go to my supervisor and ask what does ... do at home she really wouldn't know because it is a real trust relationship that we have got*

Another two criteria which were significantly linked to individual, job and organisational benefits were initiative and discipline. These abilities to some extent can be cultivated, and to another extent may be job-related. That is, the more senior employees can be thought to have a stronger connection to the job, especially if their performance and remuneration have linkages to job outcomes. It can therefore be assumed that the actual work location of these individuals may not have an impact on success. These findings are consistent with other reported competency needs in HBW (e.g. Gray, Hodson & Gordon, 1994; Upton, 1995)

Organisations also indicated that self-discipline and motivation were the most important criteria for selecting homeworkers, self discipline involved commencing work, for example:

> *Someone that can be very strict with themselves, not be influenced by the mundane things and kids running around and possibly other influences, visitors coming to the front door and door to door sales people and all that, you've got to keep that separate from it, not to get disturbed by that*

Interestingly, it also involved knowing when to stop. Piskurich (1996) reports a similar finding, identifying the ability to leave work behind when the day ends as a required trait. Many homeworkers in this study warned about the dangers of over-working, and subsequent affects on productivity, family relations, and job burn-out. The quotes below sum up these views well.

> *The only thing you have to be careful of, I suppose, that you don't overdo it and your whole life doesn't revolve around work.*

> *I am always at work. In terms of balancing your whole life and your work life, that can be very very difficult. It is very easy to be caught in the trap of "I will just finish this off", and 3 hours later after you have finished that off and you have started something else and you have got phone call coming in and, "somebody is going to send a fax, I will just sit by the machine and wait till it arrives", and then before you know it is 1 o'clock in the morning, and your family hasn't seen you all evening.*

The issue of self-discipline also extended to mental preparedness for work. Some individuals indicated that they would still go through the rituals of getting themselves ready for work in order to separate themselves from the home (*e.g. "I get dressed for work, that is part of the routine, you tend to become lazy otherwise"*). There did not seem to be any difficulties associated with actually doing the work itself, in fact homeworkers indicated that they were more productive, but there was a perception that work at home may not necessarily *seem* professional. A few homeworkers refrained from telling anyone they worked from home. In the main, these were highly skilled, professional female employees. The following quote captures the essence of this dilemma:

Relaxation and comfort may be a factor certainly when I am in my jeans and a T-shirt I can really plough through a lot of work when it comes to filing and purging files and bringing things up to date I love that because it is cleaning things up. I must admit though when I get on the telephone and I'm dressed like that I really have to try to see myself in a business suit

Employees who are not necessarily senior, but have been associated with the organisation for a long time may also be good candidates for HBW as discussed in the previous section. The level of performance and motivation of these individuals would be known by the organisation. These can be used as criteria for eligibility. However, in both instances attention also needs to be paid to the design of the job. This issue will be considered later in this chapter, but is summed up well in the following quote:

As far as more junior people working at home, it depends on the work, but I should think you would have to be good at working on your own, I think you have to be good at making decisions and perhaps taking a lot of chances on yourself, rather than relying on other people to give you input, so I don't know. It depends if you are talking about junior data processors, then obviously yes, but for project work, or for policy analysis, or even for research, I should suggest that you need to have quite a bit of experience, and be able to work on your own

Competencies which were identified as not contributing to HBW benefits were awareness of occupational health and safety (OH&S), knowledge of computer maintenance functions, and team skills. The finding with respect to OH&S is disturbing especially in view of the large number of interviewees expressing concerns about the tendency to over-work. Many participants commented that the HBW arrangement provides an opportunity to become a workaholic, which can have an impact on the personal and professional life of the homeworker. As well as this, many organisations shy away from implementing HBW programs, as they see OH&S issues and therefore compensation and legal precedence, as significant unknowns to contend with (Standen & Omari, 1997).

There were some conflicting views in relation to the requirements for computing knowledge. Most employees in the current work environment have to have some degree of basic computer literacy to carry out their duties. The homeworkers here found the need to have *knowledge of computer maintenance functions* as one of the least important competencies for successful HBW. However, results from the same respondents identified a positive and significant link between *knowledge of computer applications* and organisational success. This may reflect the wording of questions. There may be a tendency to interpret computer maintenance functions in relation to a technician's role, whereas knowledge of computer applications may reflect computer literacy skills.

Computer literacy may therefore be considered a success factor. This is however contingent on the occupation of the homeworker. This competency will be relevant to jobs/occupations where there is a high requirement for computer use as in most knowledge work.

The area identified by organisations as least important for HBW was team skills. It is noteworthy that team skills relate to many other skills, such as communication and cooperation which were found in this study to relate to success in HBW. Irrespective of this, it makes sense that individuals working at home would occupy positions where there is a limited need or opportunity for interaction with others at the workplace.

In summary it can be said that the competencies of the individual homeworkers can affect the benefits of HBW. Job knowledge was found to contribute to success. The skills requirements of successful HBW requires a highly organised and structured approach to work. Successful homeworkers are also required to possess good

communication and assertiveness skills. Initiative, discipline and drive are also required to give the homeworker the best chance possible in being able to work independently.

Psychological Profile

Insights into the psychological profile of the homeworkers were gained through investigations of the personality of the homeworker, work needs, and motivation for HBW. With regard to personality traits, findings point to participants in the survey being open to new ideas, with broad interests, functioning well in trusting relationships, and gaining much of their energy from their environment. These findings are reinforced by the following quotes:

> *If I don't want to work tomorrow, if I want to do gardening, like I am going to do tomorrow I will go and mow the lawns and go to the tip and tidy around outside, but I will work all Sunday.*

> *I think I am very fortunate because there are very few places that are willing to trust the employee. I fill in time sheets, so it is all down to me to be honest on these ... I am very lucky that I am in a organisation that trusts me, and values me enough to consider that I am worthy enough.*

> *I prefer to work alone. I find (office work) quite sterile. I like to be surrounded by ... influences. I have to be honest, my office is absolute chaos, but is ... not a sterile environment. It is better than being in a fluoro office so to speak, I just find the whole thing sterile and uninspiring and almost alienating, I find I am in some sort of a 9-5 corporate grind.*

These quotes point to interests other than work: the importance of the home and work environment, and how it is perceived; and the significance of trust. One area where the survey findings seemed to conflict with interview findings relates to the need for social contact. Descriptive results from the former indicated that the majority of homeworkers assessed themselves as more outgoing, while findings from the latter indicated that social isolation seemed to be a significant issue for some, and that introverts would

seem to cope better with the arrangements. The following quotes summarise the points made.

> *I just feel like I'm very isolated, and even though I'm talking to clients all day and maybe seeing clients all day it is not enough. People can be forgotten if they are not seen ... it could affect career prospect.*

> *I have always been much of a loner, and enjoyed doing stuff in silence anyway. I don't miss seeing people at work, in fact I enjoy the solitude, so I think you would probably need to be more an introvert.*

One HR manager interviewee had the following to say about the potential of an untapped labour market. This comment specifically related to individuals who did not possess well-developed social skills and therefore were marginalised in the workplace.

> *I could think of 2 or 3 people from the industry who would be ideal to work from home, they never socialise, I have never heard them speak. They get in, stand in the corner and put their heads down, they don't want to know anyone. They are here for the work, and maybe they don't have the social skills, and potentially we are missing out on a lot of people that are technically brilliant, but with no social skills, because there are a lot of people which would produce a huge amount of good work if they were allowed to work at home, but you won't see them in the work force.*

In contrast another homeworker commented,

> *If working at home became dominant you would miss the socialising aspect and I guess working face to face with people there is a certain amount of synergy there. Working at home gives more scope in networking and promoting career opportunities you take on more responsibility and variations, the old management thing is not as strong. The only side effect is people get a bit insomniac and work day and night ... If you are away from work colleagues for a long period getting motivated at home could be a problem, you could loose motivation or get a bit isolated and maybe not know what is going on and feel deprived if you like.*

Myers (1996, cited in Hobbs & Armstrong, 1998, p. 2) distinguishes between loneliness and aloneness, "... an individual can feel lonely in the middle of a crowded party, and yet not feel lonely when working alone in an office on an absorbing piece of work". As

can be seen the issue of social isolation is complex, and a function of the nature of the job, this will be further explored later in the chapter.

HBW may have the added benefit of improving an employee's self worth. One of the homeworkers had the following comment about the impact of career breaks as a result of tending to family commitments:

> *Being a mum at home, it helps your self esteem, your confidence in your own abilities. If you are out of the work force for a while you sort of tend to doubt your abilities. When you get back into the work force things have changed so much and things like that, so I think from that point of view, it is really useful. You stay in contact with that environment.*

Other findings relating to work needs indicated successful homeworkers have low affiliation needs. This is in line with other literature findings (e.g. Richter & Meshulam, 1993). That is, connection to a section, organisation or social groups may not be very important to homeworkers. In HBW there is a need for some contact with the organisation and colleagues, yet there is also freedom for thought and action. This is in line with other study findings pointing to the need for high autonomy and dominance in work settings, yet needing to stay in touch with organisational developments.

Perceptions and attitudes towards the job itself were significant contributors to benefits. The quotes below indicate that other factors may to be peripheral to the amount of enjoyment one derives from work.

> *If you don't enjoy what you are doing, it is an effort to do it. What will happen is that you will become so annoyed with it that you won't do it right, or everything will wait to next to the last minute, and you haven't got time to enjoy what you are doing. If you are totally motivated, basically a person that can be on their own for a week and not bother about the outside world, doesn't matter what you do, you can survive at home working.*

If I was given less challenging work, or repetitive work, it certainly wouldn't hold the interest for me, and I probably wouldn't have gone to the lengths that I did, to structure my life around being able to work from home

Although these quotes offer some novel insights, it is believed that the benefits gained from HBW are contingent on many complex and interrelated factors, one of which can be job enjoyment.

The individual homeworker also needs to be at peace with themselves about working at home. One home worker commented, " *I have mixed feelings. More relaxing, no staff, no phones. But sometimes I feel a bit guilty about bringing work into the home*". If these feelings of guilt continue it would be very hard for the individual to remain productive. As such, it is important to include the homeworker's significant others in the decision making stage. Another two homeworkers stated, "*I think that the issue of balancing work at home, is probably one of the greatest issues you are ever going to face ... involve the family in the decision making process*", and, *"The negatives have been that it has been an adjustment for the entire family, it has not just been for me. I have had to explain to the children that one of the down sides is that I am not always available".*

Findings of this study therefore indicate that those who are suited to positions of authority, with much decision making capacity and little need for identification with an organisation or corporate body, would achieve good results as homeworkers. A systematic and logical approach to work, being innate to some degree, and linked with experience to another, also contributes to success. These findings are similar to other studies (e.g. Hobbs & Armstrong, 1998).

MOTIVATORS FOR HBW

The reasons people opt for HBW were related to certain demographic characteristics that may moderate the effect of psychological profile on HBW success. Female respondents generally took on HBW to balance work and family issues, whereas male respondents seemed to favour work related influences such as less disturbances. The following quotes illustrate this: *"Fitting in with family responsibilities was the whole reason for it"* (female respondent); *"I am rather pleased to be away from people ... most of whom are boring, I have no idea what they are doing, and generally take up your time with stuff which is most unimportant"* (and male respondent).

However, the following quote from a male respondent may be indicative of the recent changes in social values and stereotypes.

> *My wife and I did a complete swap ... she works full-time, and I work from home and do the domestic stuff as well. So I do the cooking the cleaning the washing take the kids to school, pick them up from school, that sort of stuff, so I have a much greater blend now in the domestic side, ... if I realised what I was missing, I would have done it probably 10 years ago. It is much more rewarding, now I can work from 8.30am through to 2.30pm, and do more than I would do in a normal 10 hour office day, and still have the domestic side, which is probably given me a greater quality of life, so that is a great positive for me*

As this homeworker indicates motivation for HBW is related to life and career stage. Similarly, more educated individuals gave more importance to commuting time, physical health and studying as reasons for HBW. As was to be expected, older homeworkers had less family responsibility, and indicated that physical fitness was important for them. Married employees found that productivity, creativity, peace and quiet, and getting away from office distractions, were more important motivators than unmarried ones.

In summary, it can be said that each of the personal dimensions investigated, demography, competencies and psychological profile, contribute to making HBW beneficial. With respect to demography, association with the organisation was identified as the most significant variable. Gender, age, marital status, and income and education levels identified different motivations for HBW. Job knowledge, planning, scheduling skills, initiative, drive, believing in the job-at-hand, and the ability to work independently were also identified as increasing the success of HBW. Finally, autonomous individuals who are trusting, task-orientated, and have low affiliation needs were found to be more successful in working from home.

Job characteristics

It is logical to assume that the nature of the job can affect success in HBW. It can be clearly concluded that jobs requiring heavy machinery, teamwork, or face to face client contact are not suitable for HBW. One homeworker commented "*I am in a fairly residential area I do not make any noise that can disturb my neighbours, I don't have the sort of traffic that can have cars lined up in the front of the car park, I don't have that sort of situation so it is very easy for me to work from home*". However, when one considers that information is the main tool of the trade for most white-collar workers, the location at which the work is carried out may only be contingent on the access to that information. This is to some extent limited by technology, security, and privacy issues.

This research aimed at investigating the relationship between the type of job and benefits from HBW gained through an investigation of the nature and design of the job. It should be pointed out that the focus was purely on white-collar work.

Occupation

Most variables in Figure 2 did not make HBW more beneficial in individual, job-related or organisational terms. Professional and clerical work were equally effectively carried out at home, as were on-line and off-line work. Similarly, the technology used at home did not contribute additional benefits. However, certain tasks were less successful than others.

Homeworkers who carry out developmental work at the home-site reported that they gained fewer benefits at the individual and organisational levels. Earlier it was postulated that developmental work, by nature may require idea generation, which may, in turn, require input from others. The following quote illustrates this: "*when you are at home by yourself, you don't get a chance to verbalise it... you don't get a chance to sound it off someone*".

Findings from the interviews, however, described one advantage for creative work. Respondents commented that this type of work cannot be confined to office hours and that HBW provided the flexibility to maximise creative energy. As the following respondent said:

> *If I have got ideas, and I am laying awake at 3 o'clock in the morning thinking of things, I can get up and actually go to my computer, or go into the office and scribble something down, and get an idea down and actually produce something valuable.*

Two other tasks that significantly related to individual benefits were research and data entry. Those working at home reported higher success rates with both. It is interesting to note that these two tasks are at different ends of the continuum of complexity and structure. Research related work is highly unstructured by nature, and could involve

linkages between many sources and methods of data gathering. Data entry, however, is highly structured, and relatively straightforward.

One of the homeworkers interviewed had an interesting comment relating to work requiring a lot of research and analysis: "*research and analysis generally requires a lot of data and stats stored on a computer. It generally requires books, a lot of information that you don't always have at home. Access to the information is important.*" Therefore, managers should consider whether it is feasible to conduct research and analyse findings from home. It is noteworthy that, in the electronic age, accessibility to information may be less of an issue, especially as on-line databases and reference sources proliferate.

Homeworkers also indicated that reading could be easily done at home, since the home environment seemed more conducive to the task. One homeworker commented, "*the sort of work that I do is suited, I get a lot of reading, it is easier to find a quiet spot at home rather than at work*".

In summary, it can be assumed that jobs suited to HBW are those that require conceptual skills and abilities, and independent thought and action on one hand, and those that are routine and highly structured in nature on the other. However, a question is raised in relation to those jobs that have elements of each. A New Zealand study (Schoeffel, Loveridge & Davidson, 1993) found that in the main HBW is the domain of professional workers with scarce skills.

Although the on-line or off-line nature of the job was not found related to the benefits of HBW, the following quotes raise an interesting point:

I am like a node in the system I can be any place, anywhere around the world. I can be overseas and I can connect from the hotel room anywhere around the world. All the information needed for my work is on-line, available on the system so doesn't matter where I am.

My manager is based in Canberra and I'm part of a team which in a Matrix sense is all over Australia and Asia Pacific, we all communicate through what we call the "Tube", I access their information and they get mine. It really doesn't matter where I am, I don't have to be located in any office.

It can therefore be said that the "tools of the trade", access to information, can be a determinant of the suitability of the job. If the infrastructure is in place to allow access to the required information globally, then the location of the actual individual is irrelevant to success. However the results show the information does not have to be accessed on-line but can be downloaded and worked on off-line.

Interviews with homeworkers raised some other interesting points relating to occupation type. One commented, "*have to look to see if a job can be done on a results basis, for example work worked out on a point system, whether you have to type up so many invoices or make so many phone calls to customers*". That is, the nature of the job itself may not be as important as how its success is measured. For less complex activities, piece-work arrangements may be used. For more complex work, measurement can be achieved through meeting pre-set objectives as suggested by others (e.g. Ommeren, 2000). In both cases, the ability to measure job success is a crucial factor.

Traditionally there has been a belief that employees with jobs that require much client contact may not be suitable for HBW. However, one homeworker commented, "*I have a lot of direct customer contact, I work from home and go to visit them*". Another homeworker saw the situation from a different perspective, "*jobs I don't think would be suitable for having people working from home are jobs where mainly you have too*

many people coming to your home, because then it gets too personal". It can be concluded that in sales or customer relations positions were face to face contact is required, homebased work seems to be a viable option if the homeworker was to visit, as opposed to the reverse situation. Alternatively, customer relations positions which are predominantly phone-based may also be deemed suitable.

In summary, occupations that benefit most from HBW are those with clear work outcomes. This could mean the job may be either highly structured, or highly unstructured in nature. Evidence also indicates that seniority may affect success. However, the benefits gained are also contingent on access to information and the absence of requirements for client contact at home.

Job design

Of the six dimensions of the JCI investigated, only task identity and feedback increased the success of HBW. As the need for feedback (i.e. clear and direct information needed to do a job well) and interaction from supervisors and colleagues increased, HBW benefits also increased; and as the job became more self-contained, complete and therefore meaningful, the chances of success increased. These findings are significant in that no matter how isolated the job may appear from other work in the area, the degree and effectiveness of communication between the occupant and others in the team seems to affect success.

Findings also indicate that most homeworkers believed that they enjoy a good amount of autonomy in the way they operate. This is in line with similar results obtained from other studies (e.g. Hobbs & Armstrong, 1998).

Although autonomy did not increase success in HBW, it was considered desirable by homeworkers, and some interviewees did suggest it affects success.

> *So as long as you don't need someone next to you telling you what to do or how to do it, and you are comfortable in your skills, then you should really be able to do quite a number of jobs.*

> *If you were reliant on other people for direction, it may be harder if you were working from home, because of the reduced human contact.*

Autonomy may be a function of the work arrangement or occupation type (e.g. professional, and managerial work). Some homeworkers and organisations believe that HBW is not suitable for people in managerial positions where they have staff reporting to them. This is interesting in that it is based on a traditional view of "managerial" type work, where the focus is on control. More progressive organisations have changed the focus onto a team leader role, where the emphasis is on providing direction and assistance. Here, the barriers to a manager/team leader successfully working from home are less obvious. The following quote is from a manager who works from home:

> *I have people reporting to me, we have a meeting on Monday mornings, there is really no time I can't be contacted, the only time I can't be contacted is when I'm with a client and then I turn my mobile off and then my paging system takes over so at any time I can get back to whoever within a half an hour, an hour at the most. I do call into the office as well. We have put on a new sales person now he is fairly new so I'm going in everyday, I'm only poking my head in the door to see if everything is OK and fine and if not we sit down and talk about it and off we go.*

It can therefore be said that the findings on autonomy are inconclusive. Although, individual, job-related and organisational benefits were not detected for autonomous work, other contextual information suggests that it may be related to success. Clearly more research is required with respect to this variable.

Another factor with impact on job design is the band-width of hours required. Those who have dealings internationally would find it hard to liaise with their clients or colleagues during normal business hours. In particular, the current emphasis on client service ethos requires contacting client needs outside these hours. To cater for this many organisations are extending their hours of operation. HBW is yet another strategy to allow more flexibility in operation whilst meeting individual employee needs, as one homeworker put it *"clients [are]... usually more willing to contact you out of hours which suits both the client and myself"*.

It can therefore be said that whole jobs, those allowing feedback, and possibly those which are more autonomous are more successful in HBW. The challenge is not only to identify key job criteria that can maximise benefits, but to be able to consider these in the context of the employee's personal characteristics. That is, linking suitable jobs with employees who can work from home successfully.

Other considerations for success

While this thesis has focussed on personal and job characteristics, the research has also provided some insight into the factors in the home and organisational environments that affect success. During the various information collection phases, respondents alluded to areas that require attention in implementing HBW programs.

The home environment

BALANCING WORK AND HOME LIFE

Possibly the most frequently quoted reason for the emergence of HBW is the need to balance home and work responsibilities. However, by its very nature work at home can

cause conflicts with personal life. It is therefore essential workers have an appreciation of this, and set clear guidelines to delineate work and personal life.

Creating physical barriers is one method that can be used to alleviate the conflict. That is, the allocation of a separate room or area where work can be conducted. Temporal separation can be achieved by clearly setting the hours of work. This reduces the tendency to over-work, and frees up time to spend with significant others. However, temporal separation of work and personal time reduces flexibility in relation to hours.

FAMILY SUPPORT

For homeworkers with families, the degree of support for HBW was critical to success. This involved provision of a dedicated work-space for the homeworker, and also the recognition that, although at home, at times this member of the family was not available.

OUTSIDE DISTRACTIONS

The importance of the home environment can be related to variables previously discussed. One of the main reasons homeworkers feel that they are more effective at home is the reduction in distractions. The home environment can, however, have its very own distractions, including television, the fridge, and other people dropping by.

The distractions are not always in the home-site. One homeworker commented:

> *My neighbour's dog continuously barks and it absolutely drives me crazy, but it drives me crazy because I'm going to be ringing clients and they will be hearing a barking dog in the background and I want to be talking like I'm in the "Terrace". So yes that annoys me, and the lawn mowing man and the rubbish trucks, I usually wait for them to go.*

The external distracters are more difficult to manage than internal ones. Work scheduling can be used to organise time, contacting clients when appropriate.

WORK SITE

Also related to effective HBW is the physical work environment. Some homeworkers commented that they work on the dining table, or in the lounge room. Those who had children indicated that this made things difficult, and they had to schedule their day around the times children were not home. The ideal arrangement seemed to be where there was a dedicated space available to work from home, as this quote shows:

> *There would need to be a secure room/area set up with desk lighting, seating, (all ergonomic). My office is equipped with the best of everything and I would need my home office the same, at no expense to me preferably.*

The organisational environment

EQUITY ISSUES

Traditionally, flexible work practices have come under fire to some extent as they are perceived to apply only to females, or it is thought that females are the only segment of the workforce who can benefit from them. Australian Bureau of Statistics figures released in 1996 indicated that 230,000 women as compared to around 112,000 men worked from home (Grove, 1996).

A few of the female homeworkers interviewed provided examples of male colleagues who had asked to work from home, but had not been allowed to do so. This was seen to cause resentment within the workplace, and towards the homeworker. Other situations also arose where female employees were not allowed to work from home. The outcome in these situations was no different as can be seen through the following quote:

> *When you have people in the office who would love to work from home but are not permitted to ... there could be a little bit of jealousy starting to creep in. There is one person that I'm thinking of that would love to work at home and I think begrudges people that do, but she tries hard not to show it, but I certainly feel that is there. The opportunity to work at home is not available to everyone at this stage.*

It is therefore essential to clearly establish the criteria for HBW, and communicate this to all employees. Informal arrangements may in themselves lead to inequitable arrangements. Setting criteria for selecting homeworkers would bring the organisation one step closer to equitable treatment of all involved. However, the policy must be implemented consistently.

MANAGING PERCEPTIONS

The success of any new initiative is contingent on educating all stakeholders. Perceptions play an important part in the acceptance of a new arrangement. In relation to HBW, it may be perceived as a negative, as well as a positive by people outside the organisation. The following quote raises an interesting dilemma:

> *I avoid telling people that I work at home because I don't want them to think I do, I want them to think I am in the hub of it all, in the "Terrace". They might think it is not as professional as being in the head office. With the people that do know I work at home, they think ... is a wonderful company and very flexible, and how wonderful to have an organisation like that behind you*

This homeworker is reluctant to tell clients or associates she works from home, as her work may be perceived as less professional. However, those who are close to her have a positive view of an organisation that obviously cares for its staff, trusts them, and treats them like professionals.

Perception management is important internally as well as externally. Staff must be educated on the benefits of HBW arrangements, and have an understanding of the

downsides. Quaid and Lagerberg (1992) in a study of 25 organisations and 250 people also found evidence of envious non-telecommuters and colleagues. Externally, clients and the society must be informed of how this novel work arrangement can better meet the needs of stakeholders, including staff, their families and communities.

SUPPORT

Another emerging theme is related to the importance of the degree of support an individual receives whilst undertaking HBW. The most obvious source of support is management, including top management. As the following quote shows, this must not be underestimated.

> *Management needs to provide adequate training, back up and on going support for home based workers. Opportunities are also required for contact with other employees doing the same job. Open and trusting management is very important to the motivation of homebased workers.*

It was interesting to find that support was required from all directions: from managers, subordinates, colleagues, and especially from the family. The importance of family support has been previously discussed. With respect to colleagues and subordinates, one respondent commented that, if these people where "on-side", they would assist the homeworker to keep up to date with recent and crucial events, making it easier to manage the job from home and stay connected to the organisation. Another homeworker indicated she "*couldn't do this without good support staff, I need support at both ends at management and subordinate level*".

IMPORTANCE OF NETWORKING

Networking, and establishing open lines of communication are important at all stages of an employee's career. For employees working from home, contact with others in the

workplace takes on an added dimension of importance as it allows them to stay connected to the organisation. Formal communications provide the basis for the homeworkers to carry out their tasks, however informal communication is also needed to maintain links to the organisation, as the following quotes show:

> *I think it is fairly important to catch-up with other people otherwise you work on your own and are not part of an organisation, I think you really need to stay in touch with other people, definitely. I do think sometimes they do tend to forget you.*

> *I had two very embarrassing experiences ... I was put in the position where I made some faux pas in terms of babies being born, and someone's husband, not knowing that he had died. I think it is keeping up with the culture and the gossip really if you like ... I think that level of communication with people is probably one of the first things to go when you are working from home, and it is a drawback.*

Networking is generally something that the employee takes responsibility for. However allocating each employee a mentor, or a contact, in addition to their supervisor or manager, might assist in getting some information to them.

PROVISION OF EQUIPMENT

One of the reasons that organisations shy away from HBW arrangements is thought to be the large expense associated with setting the employee up at the home site, as well as the office site (Standen & Omari, 1997). In effect, the employee's work equipment needs can double. However, hot-desking arrangements can allow organisations to optimise the use of their assets by ensuring that space and equipment do not lie idle.

It would be difficult and to some extent unreasonable to ask the homeworker to supply their own equipment. This can cause incompatibility problems with existing systems, and impose additional cost burdens on the employee. It seems reasonable for

organisations to supply their employees with basic equipment. Organisations therefore need to have clear yet flexible guidelines on the use of personal and office equipment. This is required to minimise uncertainty in relation to issues dealing with taxation, fringe benefits, insurance, maintenance and safety (Standen & Omari, 1997).

THE IMPORTANCE OF VOLUNTEERING FOR HBW

None of the homeworkers who participated in this research were forced to work from home. All had either approached the organisation to work from home, or had nominated themselves under existing HBW arrangements.

As with any other novel work-practice, efforts should be made to target enthusiastic and flexible volunteers in initial HBW arrangements. Once small successes are achieved, positive messages are sent to the rest of the organisation, which then in turn pave the path for wider success. It is therefore essential to allow only those who want to work from home to do so. The chances of success can be severely reduced by coercing someone who is not interested to partake in it (Mahfood, 1992).

Other success factors

Homeworkers as well as the organisations consulted identified some other considerations for successful HBW. The need for a HBW policy attracted much attention. Clear guidelines would ensure consistency and set a framework for HBW. There is a need to remain flexible with arrangements. One HR Manager commented, "*... you have to be somewhat pragmatic. That is why the criteria would have to be broad enough to take into account a range of factors, and that the expectation has to be realistic on the individual that is making the application.*"

Building a review process into the HBW arrangement was another important consideration. This would help consistently upgrade the work environment, and ensure agreed arrangements are adhered to. Not only can the review of processes track success, but also identify problem areas (e.g. over work) early on, and set in place strategies to deal with issues before they become truly problematic.

Piloting the arrangements prior to full-scale implementation was a strategy seen as very helpful. Small-scale arrangements, in conjunction with constant review, and monitoring, could assist in identifying and eliminating problems early. One organisation has gone so far as to offer a homeworker "home office" environments at work to give interested staff an insight into what the working at home may actually be like for them (McGonegle, 1996). Small-scale success of HBW in itself could be a form of marketing, selling the benefits of this work practice to people within and outside the organisation.

A final issue that may not be relevant to all jobs and situations is the need for security of confidential, and sensitive information. This could be arranged simply by assigning log-ins for computer systems, or passwords for documents. For physical evidence or papers, locking up all material after use would assist in meeting security needs.

It can therefore be seen that the work and home environment of the homeworker also contribute to achieving benefits from HBW. An effective HBW program would consider not only suitable characteristics, in terms of job and personal selection criteria, but also contextual issues in terms of arrangements within the organisation and at the individual's home work-site.

Future directions in HBW

Clearly some inroads have been made in the acceptance of HBW as a flexible work alternative. However, based on the findings of this study there is still some way to go. The final segment of this chapter will address two main areas: the potential for growth of HBW, and they way in which this research can help organisations increase the use of HBW.

Some authors argue that HBW has been oversold, and that some of the more difficult issues are unresolved (e.g. Eiszele, 1998). Others argue that based on management inflexibility and conservatism the focus on the negatives is bordering on paranoia (Moodie, 1998). Most organisations (and many employees) by nature are conservative, and remain sceptical of this new work arrangement. Some segments of the workforce fail to take advantage of the benefits that HBW can offer. Legitimisation of HBW within organisations will require cultural change. This in itself is difficult, and as some authors (e.g. Dick, 1993) assert almost an impossible task.

In order for HBW to gain acceptance within organisations it should be seen as a strategic tool to meet both organisational and employee needs. This practice must be in line with organisational goals and objectives, and aligned with the organisational structure, technology and tasks. A contingency approach is needed to meet specific requirements in internal and external contexts. Clearly, more research is required to identify HBW best practice. As with any new procedure or program, benefits must be reconciled against limiting factors, and strategies and policies should be developed to address areas of need.

In view of the exponential developments in information technology, HBW is becoming a viable option. If even a fraction of the proposed benefits are realised (e.g. improvements in productivity and job satisfaction; and reductions in absenteeism and turnover), organisations gain a competitive advantage in the marketplace. This advantage is becoming increasingly significant in view of the globalisation of the marketplace, and the creation of a global workforce, where the virtual organisation has some advantages (Townsend, DeMarie & Hendrickson cited in Lamond, 2000b). The flexibility that HBW creates can increase the competitive potential of organisations, in view of the blurring of the boundaries of space and time in contemporary business.

At the same time, community pressure requires organisations to become more socially aware. HBW can assist in the participation in the workforce of people in remote localities, and from high unemployment areas. Other segments of the population (e.g. those with physical disabilities, or prison inmates) can be given the opportunity to contribute, and become productive members of the community. This involvement can have a significant impact on the "image" of the organisation.

Success can only be achieved if a program yields measurable benefits. This would require, amongst other things, appropriate recruitment and selection practices in order to acquire, and identify, those individuals who could truly thrive whilst working in a homebased setting. This study contributes to the body of knowledge about personal and job characteristics that improve the success of HBW. However, more research in different contexts is required to identify best practice in this respect.

This study has gone some way in identify "who" in terms of employees, and "what" in terms of jobs are suited for HBW (Figure 13). Contextual considerations such as the home and work environment of the individual have also been accounted for.

More workplace research can assist in theory development, which can in turn be used to create a truly flexible and effective work arrangement. Selection and recruitment practices for HBW should be monitored within organisations with the aim of identifying best practice. This in turn can assist in the success of pilot programs, in turn improving the image of the work practice within organisations.

7. SUMMARY AND CONCLUSION

The aim of this research was to identify the personal and job characteristics that contribute to the success of HBW arrangements. In doing so, the aim was to address four research questions. Findings associated with each will be summarised here with special attention to implications for management and future directions for research.

What personal characteristics are related to success in HBW?

One variable clearly linked to success in homeworking arrangements was the length of service with the organisation. This finding may be explained by connection to the culture of the organisation, the degree of commitment, and possibly seniority as well as job knowledge.

This study did not find any direct effect of age, income, gender, marital status, commuting time, or hours worked. However, some of these demographic characteristics do indicate different motivations for employees. This indicates that demographic variables can predict the success of HBW, and therefore may need to be considered by managers. For example, generally the reduction in commuting time was not a significant factor in opting to work from home. However, this factor could take on added importance if the homeworker was disabled, injured, or on a graduated return-to-work program. Ideally, multivariate analysis should be conducted to assess the impacts of these moderating variables. However, the sample size in this study was too small for this.

A number of demographic groups were identified on the basis of motivation for HBW. Female respondents indicated that meeting family responsibilities was the primary motivation to work from home, for male homeworkers the reasons were more job-specific, such as to achieve greater concentration. Low-income earners in this study, mainly women working part-time, were also found to be motivated primarily by the need to meet family responsibilities.

Level of education was related to commuting time, concerns for physical health, and studying. These showed that employee groups at different stages of life have differing motivations. This in itself is not a new finding, but it has implications if HBW policies are applied in a rigid manner.

Marital status was also related to motivation. Married homeworkers had more desire to achieve higher productivity, improved creativity, better concentration, and to get away from office distractions. This reaffirms findings in the literature that the social aspect of work has an added dimension of importance for young and single employees (e.g. Goodrich, 1990).

A strong work ethic and integrity was seen as essential to success by the organisations surveyed. This is reinforced by the finding that successful homeworkers have a strong drive for achievement, high commitment, and strong identification with the organisation and its goals.

Mixed findings were obtained in relation to the interaction of homeworkers with their external environment. Survey findings indicated that the majority of successful homeworkers were mildly extroverted individuals. It can be hypothesised that such

people would meet their socialisation needs from outside the home. As long as the homeworker has the ability to tailor the social environment to their needs, then optimum levels of satisfaction and productivity can be attained. Some homeworkers, however, indicated that as introverts they thrive on working in solitude.

It was found that successful homeworkers assess themselves as trusting, having high needs for autonomy, and low affiliation needs. Although these individuals are independent, practical, and highly structured in their work, they have low needs for connection to the organisation and contact with their colleagues. They are highly committed to their work, and to achieving organisational goals. Initiative and discipline were also reported as increasing success in HBW, as were good communication skills and assertiveness, and believing in the job at hand.

A final issue is the organisation's role in skilling and preparing homeworkers. The organisation should ensure the appropriate skill and knowledge base is available. While it can be argued that many of the traits required in a successful homeworker are innate, and demographics cannot be manufactured, skills and knowledge can be learnt.

In conclusion, it can be said that whilst it is necessary to have a structured approach and transparent processes for selecting homeworkers, there is also a need for flexibility. A rigid process may select for individuals based on specific criteria, whilst disregarding the context in which the request to work at home is made. The findings of this study indicate that those employees with some degree of association with the organisation, and those who are in relatively senior positions have the best chance of success as homeworkers. Yet again, it must be stressed that different life and career stages have

different challenges associated with them. As such, individual success in HBW would to some extent depend on the motivation to work at home at any given time.

What factors motivate successful homeworkers?

In discussing the motivations it is important to recognise the diversity of the workplace. As previously discussed, much of the motivation for working from home may be linked to the career or life stage of the employee. Women have additional motivations. Despite the inroads that they have made into equality in the workplace, women are still considered the primary care givers and nurturers of the family unit. This places additional responsibilities on female employees. It was found that female homeworkers are primarily motivated by the need to balance their work and home life, while their male counterparts have more task orientated motivations.

It is also relevant to highlight the differences between the Australian and overseas experiences with respect to motivations for HBW. Due to the relatively low population in Australia and in the relevant capital cities, commuting to work may not be as daunting as in other industrialised nations. The relatively mild wether in Australia and low pollution levels compared to cities such as Los Angeles also discourage HBW. However, the prospect of gaining access to employment from remote localities (in a geographically dispersed country such as Australia) could be a potential motivator.

Another motivation to work at home was to help coordinate work, with homeworkers' changing motivation levels. Being in a less structured environment allowed the individual to get through periods of low motivation by changing to non-work activities. Another motivator discovered was job satisfaction – enjoying and believing in the job at hand were critical to success.

It can be concluded that motivation to work at home is a factor that can be either personal, occupational or environmental. The employees' individual circumstances, at both work and home would determine their need to work from home. Managers need to build flexibility into the HBW arrangement if maximum benefits are to be achieved. Homebased work can therefore be seen as a strategy to manage diversity in organisations.

What types of occupations do successful homebased workers have?

Statistical results showed success in HBW was generally not dependant on on-line vs off-line work, or the tasks involved. The exceptions were three types of activities: research, development, and data entry. Jobs which are unstructured, and require conceptual skills (e.g. research), and those which are highly structured and routine (e.g. data entry) are both suitable for HBW, as long as they can be assessed in terms of outcomes. Development work, would however require the input of other employees, and was thought not be effectively done remotely. In contrast, in creative work individuals found that homebased arrangements freed them from time constraints. The differences in perceptions towards development and creative type work can be attributed to the latter being a solitary affair, whereas the former may require input from others into the creation of systems and processes.

The homeworker survey results indicated that the majority of male homeworkers were professional or managerial occupations, whereas the females were in clerical or administrative jobs. Organisations reported that they perceived homeworking to be more appropriate for senior and professional staff. This was in accordance with successful homeworkers' reported need for autonomy and discretion. Senior employees

have authority and would therefore have consolidated their position within the organisation. Therefore, they would not be disadvantaged by the lack of visibility in HBW. However, the situation is different for female employees in less senior positions. Women with young children may be willing to sacrifice career progression to balance their work and home responsibilities, whereas male employees with established positions within the organisation may have little to lose by working remotely.

The lack of interconnectedness between the homeworker's job and others in the organisation was also identified as contributing to success. Jobs requiring much interaction with other jobs were not deemed suitable for HBW. Ready availability of essential information to the individual at home was also found to affect the degree of success of HBW.

Based on the findings of this study it would be short-sighted to discount managerial or supervisory jobs from HBW. It was found that managerial jobs can be conducted from home, as long as the team is clear on what requires doing and what outcomes are sought. Managers' skill in creating a cohesive team is an important consideration.

A final occupation-specific observation was that client service jobs requiring face to face contact can be performed from home, as long as the employee visits the client, and not vice versa. Client visits to the employee at the home-site could be seen as an invasion of privacy and personal space, as well as possibly impacting on the neighbourhood (e.g. increased traffic and commercialisation) and on shire and council regulations.

In summation, occupations suitable for HBW are those with clear outcomes. Access to information, and the workers' self sufficiency in conducting tasks are also important to success. Attention must also be paid to selecting workers with seniority or suitable career progression as the lack of visibility in HBW adversely affects the upward mobility of junior employees.

What types of job designs are related to success in HBW?

Of the six dimensions of the JCI only task identity and feedback were linked to success in HBW. As the degree of feedback increased so did success, and as jobs became more self contained, the HBW arrangement was found to be more successful. However, the effectiveness of communication processes seemed to moderate success. Whatever the occupation or position, there will always be a need to receive feedback from the conventional work-site. Those who managed to acquire needed information, reported higher degrees of success. This would to some extent be a by-product of their communication skills, including assertiveness, and negotiation, and also a function of the arrangements in place.

Task identity minimised the need for interaction with others, and also created clear outcomes. As well, most individuals engaged in HBW reported a good degree of autonomy and variety in the tasks they carried out.

Findings also suggest that the nature of the job should not be viewed in isolation. Policies and practices in the organisational setting, and arrangements at the home-site are also keys to success. This would mean that the selection of people, and jobs suitable for HBW should not occur in the absence of an assessment of the home and work environments.

Concluding comments

The practice of working away from the traditional work site has long been available in particular segments of the workforce, such as sales. However, the technological revolution and increasing pressure on organisations to improve employees' quality of life now makes remote work a strategic tool to help meet organisational and employee needs.

This study focused on remote work from home. Homebased work is becoming an accepted work practice in the US and Europe, particularly Scandinavia. Australia, however, has been slow to embrace it. The main barriers to the acceptance of HBW stem from conservative organisational cultures and practices. As discussed earlier, the lack of management trust forms a barrier to HBW that has prominence in the literature. However, much scepticism over this work practice emanates from the lack of information and research in the area.

Most HBW research focuses primarily on productivity gains. Few attempts have been made to study the precursors to success. This study specifically focused on personal and job characteristics that could have an impact on the success of HBW. Although this area has not enjoyed much public attention, it can be said that poor choice of job or employee can eliminate or reduce of the benefits of this work practice. Success was measured by assessing benefits for the individual, the job and the organisation. The study was based on the premise that certain employees and jobs are more suited to HBW arrangements. Therefore, by identifying and selecting for these characteristics, the benefits of HBW can be maximised.

Findings from this study confirmed some assertions in the literature, answered some questions, and raised new questions. A general conclusion is that effective selection practices can improve the chances of successful HBW arrangements. Attention needs to be paid to the type of person selected to work from home as well as the job itself, including job characteristics. As well as this, the home and work environment of the homeworker must be conducive to supporting the individual, their family, and colleagues.

This exploratory study contributes to the body of knowledge relating to HBW, and is therefore a small step in better understanding organisational and employee needs. Clearly, more research into individual and contextual considerations for HBW using appropriate sample sizes is required to establish best practice before organisations and employees can reap the full benefits of this innovative work arrangement.

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Appendix A: Phase 1 Questionnaire for HR Managers

Note: Sections of this questionnaire are not analysed in this thesis

SECTION A DO YOU HAVE EMPLOYEES WORKING AT HOME?

For this survey, 'working at home' describes employees working at home for half a day or more per week, whether formally sanctioned by company policy or not. We are ***not*** *interested in the 'overload' work many people occasionally take home to catch up on, but in 'normal' work regularly done at home. How much of the working week/month is spent at home is not important. Teleworkers working at home are included.*

1. Do you have employees working at home by this definition? ❑ Yes ❑ No
If you ticked No, please go to Section C.

SECTION B ORGANISATIONS *WITH* EMPLOYEES WORKING AT HOME

1. Approximately how many employees work at home by the above definition? _____

2. What is the most common period spent at home per week?

❑ less than 8 hrs per week ❑ 8 - 24 hrs pw ❑ 25 - 35 hrs pw ❑ fulltime

3. What type(s) of work are done at home?

❑ none ❑ clerical ❑ phone enquiries ❑ sales/marketing ❑ financial ❑ IS/IT
❑ management ❑ art/design/creative ❑ legal ❑ other _____

4. Please tick the technologies commonly used in work at home.

❑ telephone ❑ fax ❑ computer linked to office
❑ computer <u>not</u> linked to the office ❑none

If you ticked *phone, fax or computer linked to the office*, would you say that the homeworkers normally need to communicate with colleagues or clients

❑ little or never ❑ moderately ❑ frequently ❑ can't say

5. What personal characteristics would employees need in order to be allowed to work at home?

_____
_____
_____

6. If you are aware of people working at home due to difficulties in commuting (e.g. due to travel distance, disability, medical condition, pregnancy) could you describe briefly? (e.g. "2 physically disabled telephone operators")

_____
_____
_____

7. What have been the benefits of HW? (please give brief details)

❑ Increased productivity

_____

_____

❑ Increased job satisfaction

_____

_____

❑ Decreased office costs

_____

_____

❑ Improved recruitment and retention

_____

_____

❑ Decreased absenteeism

_____

_____

❑ Other benefits

_____

_____

8. Could we interview you (by phone if necessary)?

To gain deeper understanding of HW in practice, we would greatly appreciate the opportunity to talk to you or a colleague on your organisation's experiences. Interviews will be confidential. If you could help, please enclose a business card or provide details:

Name: _____ Tel: _____

Title: _____ Organisation: _____

9. Does your organisation have a formal policy on work at home?

❑Yes ❑No **Please go to Section C**

FORMAL HW SCHEMES ONLY

- Please describe briefly the key features of your organisation's policy:

_____

_____

- In your opinion, what factors are essential to successful management of HW schemes?

_____

- What lessons would you pass on to others looking to implement a formal HW policy?

SECTION C ATTITUDES TOWARDS HOMEWORK - *ALL* ORGANISATIONS

1. What type(s) of work in your organisation do you think are suited to being done at home?

❑ none ❑ clerical ❑ phone enquiries ❑ sales/marketing

❑ financial ❑ IS/IT ❑ management ❑ art/design/creative

❑ legal ❑ other _____

2. How supportive would your organisation be towards allowing homework for a greater number of employees than at present, whether formally or informally?

Very supportive 1 2 3 4 5 6 7 Not at all supportive

3. In your opinion is it likely your organisation would introduce a formal HW policy in the next two years?

Very unlikely 1 2 3 4 5 6 7 Very likely

4. To what extent does **your organisation's attitude** to HW agree with these statements?

	v. strongly agree			neutral			v. strongly disagree
The nature of the work does not suit.	1	2	3	4	5	6	7
It has never been considered.	1	2	3	4	5	6	7
We lack knowledge of advantages and/or costs.	1	2	3	4	5	6	7
Senior managers do not support it.	1	2	3	4	5	6	7
Middle managers or supervisors do not support it.	1	2	3	4	5	6	7
Employees do not want it.	1	2	3	4	5	6	7
Employees will not work as hard at home.	1	2	3	4	5	6	7
We cannot monitor employees at home.	1	2	3	4	5	6	7
The technology is too costly.	1	2	3	4	5	6	7
Industrial relations issues are a problem.	1	2	3	4	5	6	7
Occupational health issues are a problem.	1	2	3	4	5	6	7
Insurance is a problem.	1	2	3	4	5	6	7
Security (of information/equipment) is a problem.	1	2	3	4	5	6	7
Other (please specify) _____	1	2	3	4	5	6	7

SECTION D ORGANISATIONAL CHARACTERISTICS - *ALL* ORGANISATIONS

This section will help us understand how organisations that do & don't allow HW differ. Please indicate whether you agree that each statement generally applies in your organisation.

	v. strongly agree			neutral			v. strongly disagree
The work process is coordinated and under control.	1	2	3	4	5	6	7
Participative decision making is widely & appropriately employed.	1	2	3	4	5	6	7
Rules, procedures and formal methods guide the work.	1	2	3	4	5	6	7
The goals are clearly understood by most members.	1	2	3	4	5	6	7
The work effort is usually intense.	1	2	3	4	5	6	7
Innovation is stressed.	1	2	3	4	5	6	7
There is a positive interpersonal climate.	1	2	3	4	5	6	7
Individuals frequently work in differentiated, specialised tasks.	1	2	3	4	5	6	7
Quantification and measurement are key parts of the work climate.	1	2	3	4	5	6	7
The organisation is quick to adopt information technology.	1	2	3	4	5	6	7
There is a stable, predictable work environment.	1	2	3	4	5	6	7
Consensual decision making is encouraged.	1	2	3	4	5	6	7
Outsiders perceive it as a vibrant high-potential organisation.	1	2	3	4	5	6	7
Creative insights, hunches and innovative ideas are stressed.	1	2	3	4	5	6	7
It is easy to explain the overall objectives of the organisation.	1	2	3	4	5	6	7
Employees feel as though they really belong to the organisation.	1	2	3	4	5	6	7
There is a constant striving for greater accomplishment.	1	2	3	4	5	6	7
The organisation has the image of a growing, dynamic system.	1	2	3	4	5	6	7
Management see clearly how technology impacts on the bottom line.	1	2	3	4	5	6	7
Workers see themselves as part of a team with a common goal.	1	2	3	4	5	6	7

SECTION E ORGANISATION TYPE - *ALL* ORGANISATIONS

1. Is your organisation ❑ Private sector.....❑ State Govt ❑ Aus Govt ❑ Nonprofit

2. Is it based

❑ In Australia and solely operating here ❑ In Australia & operating overseas

❑ Overseas

3. What is your main area of activity?

❑ Public Service
❑ Information Technology, Telecoms
❑ Mining, Energy & allied processing
❑ Retail
❑ Other _____
❑ Banking, Insurance, Fin. Services
❑ Transport
❑ Manufacturing
❑ Agriculture & allied processing
❑ Tourism, Hospitality

4. How many employees in your organisation?

❑ 1-100 ❑ 101-500 ❑ 501-1000 ❑ over 1000

SECTION F OTHER COMMENTS ON HW

Please add any further comments on the value of home work.

_____

_____

SURVEY REPORT

To receive a copy attach your card or write your name & address (mail separately if you prefer):

_____

_____

YOUR ASSISTANCE IS GREATLY APPRECIATED

Please post the questionnaire as soon as convenient.

Appendix B: PHASE 2 INTERVIEW QUESTIONS FOR HOMEWORKERS

TOPICS EXPLORED IN HOMEWORKER DISCUSSIONS

Work At Home

- Personal details
- Job & Position Title
- Length of stay, job/organisation
- Hours at home/work
- Tasks carried out at home
- Technology used at home
- Commuting time to/from work

Views Towards Working From Home

- Words/phrases associated with working at home
- Attraction to working at home. Life & work priorities
- Type of person

Job & Organisation

- Doing a job well
- Working at home affecting work
- Worst things about working in an office
- Management supportive
- Spread within/outside organisation
- Security/OH&S risks

THE HOME-WORK ENVIRONMENT (MIXING WOR

K & HOME LIFE)

- Where work at home
- Ease of balancing work & home/family life. Difficulties encountered
- Getting motivated at home
- Working at home help work better
- Share the home with

Other Comments

Appendix C: PHASE 3 QUESTIONNAIRE FOR HOMEWORKERS

HOMEBASED WORK QUESTIONNAIRE

Please answer the following questions to the best of your abilities by circling the relevant option or placing your response in the space provided. If the question does not apply to your situation please leave it blank. Please note you are not obliged to answer any questions you are not comfortable with. All responses will remain anonymous and will be treated with utmost confidentiality. Thank you in advance for your co-operation and input.

SECTION A - Your Job - this section relates to the specifics of your job

1. Position Title _____

2. Type of occupation — Clerical/ Admin. — Profess. — Other _____

3. Brief description of job _____

_____

4. Type of tasks carried out at home — Research — Analysis — Reading — Report writing — Designing

   (circle as many as relevant) — Compos-ing — Develop-ing — Client service — Processing — Data Entry

   Planning — Other _____

5. Technology used at home as part of work — Phone — Fax — Computer — Modem — Mobile

   None — Other _____

6. Computer connection to head office — None — Floppy — Electronic

7. Number of years with the organisation — <5 — 6-10 — 11-15 — 16-20 — >20

8. Number of years in the current position — <1 — 1-2 — >3

9. Average work week (hrs) _____

10. Hours worked at home during typical week _____

11. Average Commuting time to & from work — am _____ pm _____

SECTION B - Your Personal Details

1.	Gender				Male	Female
2.	Marital Status		Single	Married/ Defacto	Other	
3.	Age bracket	<20	20-29	30-39	40-49	>50
4.	Age of Dependents (if relevant)	_____				
5.	Relationship of the people living with you (circle as many as relevant)	Spouse/De facto	Sibling	Parent(s)/ Parent(s) in law	Children/ Step Children	Friends
		Boarders	Other	_____		
6.	Highest level of education achieved	Year 10	Year 12	Diploma	Bachelors	Post Grad.
7.	Income level ($)		<20,000	20, 001-39,999	40,000-59,999	>60,000

SECTION C Homebased Work Motivators - this section looks at the influences on your decision to work from home. Please rate the importance of the following factors in your decision to work at home

		Not Important		**Moderately Important**		**Extremely Important**
1.	Commuting time	1	2	3	4	5
2.	More peace & quiet at home	1	2	3	4	5
3.	Family responsibilities	1	2	3	4	5
4.	Study	1	2	3	4	5
5.	Office environment - formal/constraining	1	2	3	4	5
6.	Distractions - too many in the office	1	2	3	4	5
7.	More comfortable at home	1	2	3	4	5
8.	Feel more secure at home	1	2	3	4	5
9.	Reduced work related costs (lunch, clothing)	1	2	3	4	5
10.	Feel more relaxed at home	1	2	3	4	5
11.	Better opportunities for leisure	1	2	3	4	5
12.	Your physical health	1	2	3	4	5
13.	More productive at home	1	2	3	4	5
14.	Better meeting job requirements (time differ.)	1	2	3	4	5
15.	More creative at home	1	2	3	4	5

16.	To start home business	1	2	3	4	5
17.	Other, please state	_____				

SECTION D Job Characteristics - this section relates to the nature of work you are involved in. Please describe your job as a whole (including tasks carried out at home)

		Very Little		Moderately		Very Much
1.	How much variety is there in your job?	1	2	3	4	5
2.	How much are you left on your own to do your work?	1	2	3	4	5
3.	How often do you see projects or jobs through to completion?	1	2	3	4	5
4.	To what extent do you find out how well you are doing on the job as you are working?	1	2	3	4	5
5.	How much of your job depends on your ability to work with others?	1	2	3	4	5
6.	How repetitious are your duties?	1	2	3	4	5
7.	The extent of feedback you receive from individuals other than your supervisor?	1	2	3	4	5
8.	To what extent do you have the opportunity to talk informally with others at work?	1	2	3	4	5
9.	To what extent is dealing with other people a part of your job?	1	2	3	4	5
10.	How similar are the tasks you perform in a typical work day?	1	2	3	4	5
11.	To what extent are you able to do your job independently of others?	1	2	3	4	5
12.	Opportunity to get to know other people	1	2	3	4	5
13.	Opportunity for independent thought/action	1	2	3	4	5
14.	Opportunity to complete work you start	1	2	3	4	5
15.	Feeling that you know whether you are performing your job well or poorly	1	2	3	4	5
16.	Opportunity to develop close friendships	1	2	3	4	5
17.	Meeting with others in your work	1	2	3	4	5
18.	Opportunity to do a job from the beginning to end (i.e., the chance to do a whole job)	1	2	3	4	5

SECTION E - Work Needs - this section relates to your work preferences. Please indicate to what extent you agree or disagree with the following statements

		Strongly Agree		Neutral		Strongly Disagree
1.	I do my best work when my job assignments are fairly difficult	1	2	3	4	5
2.	When I have a choice, I prefer to work in a group instead of by myself	1	2	3	4	5
3.	I prefer to be my own boss	1	2	3	4	5
4.	I seek an active role in the leadership of a group	1	2	3	4	5
5.	I try very hard to improve on my past performance at work	1	2	3	4	5
6.	I pay a good deal of attention to feelings of others at work	1	2	3	4	5
7.	I go my own way at work regardless of the opinions of others	1	2	3	4	5
8.	I try to influence those around me to see things my way	1	2	3	4	5
9.	I take moderate risks and stick my neck out to get ahead at work	1	2	3	4	5
10.	I like to influence other people's works	1	2	3	4	5
11.	I disregard rules and regulations that hamper my personal freedom	1	2	3	4	5
12.	I find myself organising and directing the activities of others	1	2	3	4	5
13.	I don't mind any added job responsibilities	1	2	3	4	5
14.	I don't express my disagreement with others openly	1	2	3	4	5
15.	I don't consider myself a team player at work	1	2	3	4	5
16.	I strive to gain more control over the events around me at work	1	2	3	4	5
17.	I try to perform better than my co-workers	1	2	3	4	5
18.	I find myself talking to those around me about non-business related matters	1	2	3	4	5
19.	I try my best to work alone on a job	1	2	3	4	5
20.	I strive to be in command when working in a group	1	2	3	4	5

SECTION F Motivation - this section relates to the factors that drive you at work. Please state to what degree you agree or disagree with the following statements

		Strongly Agree		Neutral		Strongly Disagree
1.	I can easily sit for a long time doing nothing	1	2	3	4	5
2.	I would be willing to work for a salary that was below average if the job was pleasant	1	2	3	4	5
3.	I enjoy planning things & deciding what others should do	1	2	3	4	5
4.	I hate to see bad workmanship	1	2	3	4	5
5.	I try harder when in competition with others	1	2	3	4	5
6.	I admire people who fight their way to the top	1	2	3	4	5
7.	I would rather do something at which I feel confident & relaxed than challenged	1	2	3	4	5
8.	I put off until tomorrow things I should do today	1	2	3	4	5
9.	The kind of work I like pays top salary for top performance	1	2	3	4	5
10.	I like to give orders & get things done	1	2	3	4	5
11.	I get a sense of satisfaction out of being able to say I have done a very good job	1	2	3	4	5
12.	I Judge my performance on whether I do better than others rather than a good result	1	2	3	4	5
13.	I like to be admired for my achievements	1	2	3	4	5
14.	If I'm not good at something I keep struggling to master it rather than move on	1	2	3	4	5
15.	I get bored if I don't have something to do	1	2	3	4	5
16.	As long as I'm paid for my work, I don't mind working while others have fun	1	2	3	4	5
17.	People take notice of what I say	1	2	3	4	5
18.	I find satisfaction in working as well as I can	1	2	3	4	5
19.	I would not allow others to get the credit for what I have done	1	2	3	4	5
20.	I dislike being the centre of attention	1	2	3	4	5
21.	I would like to work in a situation which requires a high level of skill	1	2	3	4	5
22.	I like to work hard	1	2	3	4	5
23.	The most important thing about a job is pay	1	2	3	4	5
24.	I like people to come to me for advice	1	2	3	4	5
25.	I like to be busy all the time	1	2	3	4	5

SECTION G - Behavioural Preferences - this section relates to your preferred mode of behaviour. Please indicate which of the following best describes you by rating yourself on the scale provided

1.	Reserved	1	2	3	4	5	Outgoing
2.	Submissive	1	2	3	4	5	Dominant
3.	Serious	1	2	3	4	5	Easy going
4.	Timid	1	2	3	4	5	Venturesome
5.	Tough minded	1	2	3	4	5	Sensitive
6.	Trusting	1	2	3	4	5	Suspicious
7.	Practical	1	2	3	4	5	Imaginative
8.	Conservative	1	2	3	4	5	Experimenting
9.	Relaxed	1	2	3	4	5	Tense
10.	Prefer the concrete	1	2	3	4	5	Prefer the abstract
11.	Plan in advance	1	2	3	4	5	Let situations emerge
12.	Compassionate	1	2	3	4	5	Reasonable
13	Flexible	1	2	3	4	5	Rigid
14.	Like schedules	1	2	3	4	5	Prefer spontaneity
15.	Deep interests	1	2	3	4	5	Broad interests
16.	Innovative	1	2	3	4	5	Prefer concrete facts
17.	Talkative	1	2	3	4	5	Quiet
18.	Analyse	1	2	3	4	5	Empathise
19.	Literal	1	2	3	4	5	Figurative
20.	Appreciative	1	2	3	4	5	Critical
21.	Prefer the stable	1	2	3	4	5	At ease with unknowns
22.	Theoretical	1	2	3	4	5	Practical
23.	Think before speaking	1	2	3	4	5	Speak as you think
24.	Questioning	1	2	3	4	5	Accommodating

SECTION H - Required Skills, Knowledge & Abilities. Please rate the importance of the following competencies in working at home successfully, i.e. competencies needed over & above what your job would normally require

		Very Important		Neutral		Not At All Important
1.	Basic computer literacy	1	2	3	4	5
2.	Usage of required computer applications	1	2	3	4	5
3.	Computer maintenance functions	1	2	3	4	5
4.	Job knowledge	1	2	3	4	5
5.	Organizational skills	1	2	3	4	5
6.	Planning	1	2	3	4	5
7.	Scheduling	1	2	3	4	5
8.	Time management	1	2	3	4	5
9.	Oral communication skills	1	2	3	4	5
10.	Written communication skills	1	2	3	4	5
11.	Liaison skills (with colleagues or clients)	1	2	3	4	5
12.	Assertiveness	1	2	3	4	5
13.	Self discipline	1	2	3	4	5
14.	Initiative	1	2	3	4	5
15.	Being focused	1	2	3	4	5
16.	Enjoying job	1	2	3	4	5
17.	Believing in job at hand	1	2	3	4	5
18.	Flexibility	1	2	3	4	5
19.	Self motivation	1	2	3	4	5
20.	Ability to work with minimal supervision	1	2	3	4	5
21.	Problem solving skills	1	2	3	4	5
22.	Critical thinking	1	2	3	4	5
23.	Operating within rules/guidelines	1	2	3	4	5
24.	Not being easily distracted	1	2	3	4	5
25.	Teamwork	1	2	3	4	5
26.	Occup. Health & Safety awareness	1	2	3	4	5
27.	Other competencies, please state					

SECTION I - Homebased Work Outcomes - this section relates to benefits gained from homebased work from organizational, job, and personal perspectives. Please indicate how being able to work at home has contributed to the following

		Increased		No Change		Decreased
1.	Finishing work on or ahead of time	1	2	3	4	5
2.	Balancing work & family needs	1	2	3	4	5
3.	Higher quality work	1	2	3	4	5
4.	Completing work according to specifications	1	2	3	4	5
5.	Job control - increased autonomy	1	2	3	4	5
6.	Synchronising body clock & work demands	1	2	3	4	5
7.	Stress levels	1	2	3	4	5
8.	Family time	1	2	3	4	5
9.	Work related costs (travel, lunch, cloths, etc)	1	2	3	4	5
10.	Travel time	1	2	3	4	5
11.	Distractions	1	2	3	4	5
12.	Motivation	1	2	3	4	5
13.	Quality of life	1	2	3	4	5
14.	Productivity	1	2	3	4	5
15.	Absenteeism	1	2	3	4	5
16.	Job satisfaction	1	2	3	4	5
17.	Loyalty to organisation	1	2	3	4	5
18.	Satisfaction with work environment	1	2	3	4	5
19.	Desire to leave the organisation	1	2	3	4	5
20.	Career prospects	1	2	3	4	5
21.	Recognition for achievements	1	2	3	4	5
22.	Job security	1	2	3	4	5
23.	Opportunities for training and development	1	2	3	4	5
24.	Optimal use of skills and abilities	1	2	3	4	5
25.	Receiving adequate support & guidance	1	2	3	4	5
26.	Providing adequate support & guidance	1	2	3	4	5
27.	Pay	1	2	3	4	5
28.	Involvement in community	1	2	3	4	5
29.	Quality of work life	1	2	3	4	5
30.	Meeting the requirement of the job	1	2	3	4	5
31.	Other benefits, please state					

SECTION J - Any other comments you believe are important to our understanding of the practice of working at home

_____

_____

_____

_____

_____

_____

Thank you for your co-operation and input