

An Investigation into Teleworking as An Innovative Work Practice in Small Business Enterprises in South Wales

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ABSTRACT

The research reported in this paper was undertaken to investigate the importance of teleworking as an innovative work practice in small business enterprises (SBEs) in South Wales. In order to accomplish this the research uses a qualitative research approach which employed an online focus group and in-depth interviews through questionnaires and interviews with various organizations, employees and employers and key policy makers in Wales to construct a framework to provide greater understanding of this phenomenon. The research concludes that teleworking is regarded to be important for the advancement of SBEs in Wales. It is the first study to investigate and evaluate the practice of teleworking and how its innovative application framework affects SBEs directly in Wales to help businesses succeed.

Keywords: teleworking; innovative work practices; small business enterprises

INTRODUCTION

The proliferation of technology has changed work practices which is practically evident from laptop computers to mobile phones and digital gateways that televisions and diverse computer gadgets such as iPhone and iPad tap into. This paper investigates whether teleworking as a recent widely discussed and growing alternative form of work (DTI, 2003) contributes to innovation in public and private organisations. The study focuses on Welsh SBEs and the barriers and benefits of teleworking involving different definitions of teleworking to provide a comprehensive view of the teleworking concept in relation to its application in this research (Egbuta, 2016). The study adds to an existing body of literature on teleworking and specifically concerns itself with the adoption of teleworking as a workplace innovation with a view to comprehensively understanding the dynamics of teleworking in modern organisations, which will offer important implications for other researchers in future studies.

The research aim was to develop a teleworking adoption framework through the analysis of contemporary barriers and benefits of the adoption of teleworking as an innovation tool for SBEs in South Wales. Given the nature of the topic under investigation, three main literature sources were explored; namely, teleworking, innovation and Wales's economy and organisational sectors. The literature review enabled the researchers to benefit from previous research which provided the basis for the investigation of the adoption of teleworking as an innovative tool in Welsh SBEs. The study is contextualised in South Wales, in particular in a teleworking and innovation backdrop and review. The research consisted of two main stages.

Firstly, a conceptual framework (Jabareen, 2009) designed from the literature and bringing together a group of professionals and experts and asking them a set of questions to test the validity of the conceptual framework with the aim of understanding how they operate in their environment (Egbuta et al., 2021) and how they perceive teleworking and its components. Another group of employers and employees that practice teleworking and are perceived as the "engine room" of their organisations were questioned to review the revised conceptual framework and their viewpoint to a better understanding of their experience in regard to teleworking. The second stage of the research involved semi-structured interviews to further elaborate points already delivered in the questionnaire, and to identify common themes involved.

In this study, several challenges to the successful appropriation and the use of teleworking were articulated. These are the issues mentioned across the 'digital divide' literature. The main purpose of this study is to create awareness among SBEs in Wales to adopt the innovative work practice called teleworking that will assist them in delivering their products and services and be more efficient. This study also provides a lesson to non-adopter SBEs to shift their traditional business approaches to a more innovative approach using teleworking to make their businesses run better. It also relates to the business aims, strategies and teleworking innovative initiatives of SBEs to provide direction and advise the potential of their businesses.

The potential utilisation of teleworking for SBEs is primarily to ensure that they are more effective and competitive in South Wales and internationally to enable

them to reach local and international customers, and also be fair to employees who appreciate flexible working times regardless of circumstance. The high and low ICT penetration of certain countries also contributes to the growth of the adoption of teleworking and this is the case with South Wales. Also, the type of business or services offered by SBEs can influence the adoption of teleworking as an innovative practice. For example, some customers of SBEs prefer the face to face approach in their business dealings while some employees are only able to telework and are not part of the everyday nine to five staff. To each category, teleworking fused with innovation, ensure that the workplace in the SBE environment, caters to all needs. The positive impacts from the use of the adoption of teleworking by SBEs identified in this study provide sufficient justification to encourage non-adopter SBEs to overcome the challenges and make use of teleworking as a new channel for workplace innovation and propagating ICT infusion in the workplace. In this case, the Government plays a role in enhancing and supporting SBEs with their use of the adoption of teleworking. For instance, several examples of incentives and support allocated to SBEs in South Wales include the promotion of SBEs' "flexible working" or "home working" alternatives for employees with interest in teleworking adoption through government-agency official websites, training and workshops for SBEs through the Welsh Government and local councils, assistance with ICT equipment training, and expert advisory centres. SBEs represent the 'backbone' for economic growth by offering employment opportunities, which is also key to poverty alleviation and economic development in Wales (WG, 2012). The Government is outspreading rights to request a disparity in the time and place of work to all employees, and employers must consider these requests in a rational manner, while retaining the right to decline this request for business reasons. Therefore, the importance of teleworking adoption to SBEs cannot be overemphasised and can assist their viability.

This study discussed the benefits of telework adoption, and highlighted the importance of ICT however; many SBEs in Wales and other economies with the Welsh structure are hindered and slow in their use of ICT to effectively adopt teleworking as a workplace practice. The emerging question raised is how to encourage the adoption of telework as an innovative work practice in South Wales and Wales in general. The idea is to address the development of teleworking through the strengthening of ICT infrastructure (Thomas et al., 2015) and skilled human capital. It is important to pursue these development objectives via the appropriate channels. There are several opinions on how this matter can be 'geared up' in terms of political will and resources. For instance, support from industry can reduce some of the pressures faced by SBEs.

LITERATURE REVIEW

Introduction

In many respects, the adoption of teleworking is emblematic of recent changes in our ideas of work and the workplace (Bailey and Kurland, 2002). Information technology has facilitated the rapid growth of teleworking (Billingsley, 2013) in recent times because modern telecommunication and computer technology allows workers to perform their duties at home or in remote locations instead of requiring them to travel to and from far-away workplaces (Ndubisi, 2003). Innovation and change in the conventional work environment cannot be effected without the use of technology and knowledge transfer because according to Li-Hua (2004) "Without knowledge transfer, technology transfer does not take place, as knowledge is the key to control technology as a whole. Hence, knowledge transfer is crucial in the process

of technology transfer", and in this direct instance, teleworking in the organisations.

Most studies have attempted to reveal why the adoption of telework has been slow among organisations and the main finding is that the interests among managers is low (Brown, 2013). According to Huws et al. (1990), in their survey of a poll of 4,000 European managers, they reached the conclusion that telework 'is still very much a minority interest' among European managers. The research results showed that managers gave two major reasons for their disinterest in telework and these are: the lack of interest in the need for change, and the organisation and secondly, that the implementation of such programmes is difficult. The managers in large firms expressed concerns about controlling staff who work away from the conventional office environment. The smaller firms anticipated costs of managing and implementing telework programmes as a greater managerial issue (Bailey and Kurland, 2002).

Changes in order to organise work from different and remote locations with the use of hardware such as home and mobile computer, mobile phones and fax machines and software technologies such as the use of e-mails and group ware is what teleworking adoption is about (Perez et al., 2004). Teleworking matches the classification of innovation found in innovation literature and theories such as in Rogers (1983) where "an idea, practice, or object that is perceived as new by an individual or other unit of adoption". Some companies are classed as innovation and change resistant because in a discussion of why innovations are rejected, Abrahamson and Rosenkopf (1993) indicate that innovation integration may occur in cycles, with organisations either getting 'on board or off board'. Some organisations apply innovation for economic efficiency or because they feel competitive pressure from other organisations that have already adopted the innovation and as long as that remains the trend among their rivals, they will continue to apply it (Dahlstrom, 2014). Telework like other innovations may be subject to the 'on board and off board effect' and managers may give negative support towards telework adaptation because of the lack of proper insight, awareness of incompetence, or little awareness that others are imbibing the work (Ruppel and Harrington, 1995). Perez et al. (2004) believe that teleworking is not an all or nothing activity because only a small percentage of employees may be involved in teleworking. In addition, it can be viewed as a work pattern that can be imbibed in degrees ranging from less than one work day per week to all five work days per week (Clark, 2015). Hence, building upon this work, the research seeks to explore the teleworking activities and operations in South Wales companies with a view to building upon the body of knowledge in the teleworking area using the experiences and operational workings from these small business enterprises as a base to develop and understudy the innovative and change process through the process of innovation and its application in these organisations.

Teleworking definitions

The definition of telework proposed by the European Commission reads as follows: "Telework is a form of organising work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employers' premises, is carried out away from those premises on a regular basis" (Krzyrkow, 2006). The role of technology is buttressed (Deloitte Touche, 2013) by the definition used in the Polish legislations labour code which defines "telework as work done on a regular basis from the workplace, using means of electronic communication, i.e. technical solutions, including information technology devices and appropriate software tools, which enable

individual communication over a distance while transferring data between information technology systems. A teleworker is a person who performs telework and passes the result of their work to the employer by means of electronic communication, especially by means of e-mail" (Krzyskow, 2007). Ndubisi and Kahraman (2005) define teleworking as an information and communication technology aided work arrangement concerned with the use of personal computers, dedicated word processors or terminals, telephone, fax, e-mail, modem etc. for work-related purposes from the employee's home, a satellite or neighbourhood work centre or any flexible work location outside the traditional work place.

The Australian Telework Advisory Committee (2005) adopted a working definition of telework to include work undertaken, either on a full-time, part-time or occasional basis, by an employee or self-employed person, which is performed away from the traditional office environment. Including from home, and which is enabled by ICT, such as mobile telephony or the internet. Australian Telework Advisory Committee (2006) research findings show that owing to the lack of a consistent definition of telework, it is difficult to assemble authoritative data when measuring the uptake of telework across industry sectors and between countries. Notwithstanding the difficulties in assembling comparable statistics, there is a surprising level of consistency in the conclusions of researchers who have studied telework, including the capacity of these arrangements to support business productivity and efficiency improvements, and their ability to broaden workforce participation. Daniels et al. (2001) define mobile telework, which is also referred to as multi-location or nomadic telework as a brand of work that usually involves travel and/or spending time on the customer's work location with the teleworker probably utilising laptop computers and mobile phones to support their mobile work. Mobile telework is classed as a form of working where those carrying out this work pattern work at a range of locations (Giberson and Miklos, 2013), spending a considerable amount of time away from home and office locations. In an analysis of Daniel's definition of mobile teleworking, Hislop and Axtell (2007) suggest that the technology element of the definition leaves out jobs such as lorry driving, which involves considerable amounts of mobility however in some way necessitate minimal use to be made of information and communication technologies (Golden and Schoenleber, 2014). Perez et al. (2004) view teleworking as the organisation of work through the utilisation of communication and information technologies that facilitate managers and employees to access their work activities from distant locations such as: hotels, airports and other remote locations (mobile teleworking), managers and employees' homes (home-based teleworking), and branch offices set up solely for the intention of lightening the employees' commute daily (telecenters or teleworking centres).

Niles' (1994) definition of teleworking concurs with the work of Perez et al. by defining telework as working outside the conventional work place and communicating with it by way of telecommunications or computer-based technology. Sullivan and Lewis (2001) encapsulate most of the above definitions of telework in the brief definition which states that telework is work practice that takes place anywhere and anytime.

Working Definition

For the purpose of this study, the teleworking definition of the researchers will be adopted based on synthesis of the theory and experience from deep research and insight into teleworking. "Teleworking is defined as a form of work

that involves working away from the regular official work environment using mobile telecommunications technology in order to add value to one's personal business or to a formal organisation that one is affiliated to and offering the flexibility of work to accommodate the complexities of modern business and lifestyle."

Benefits of Teleworking

Teleworking must nowadays be considered as a flexible way to organize work and no longer as a technological innovation because it covers practices and social forms, from home-based work to part-time commuting between multiple sites, mobile work, satellite offices, small office, home office and so on (Bridoux and Taskin, 2005). Teleworking represents an alternative work arrangement facilitated by information and communication technologies that allows the employee to work physically outside the conventional workplace, and, therefore, brings work to the worker (Fairweather, 1999). Telework is a contemporary way of organising work when it comes to time and geographical space (Greer & Payne, 2014) and the essential traits of telework comprise: working away from the company premises (e.g. at home, in travel, in telecentres), flexible and in most cases unregulated work time, communicating with a computer and telecommunications devices, and work consisting in processing data (text, graphics, video, etc.) (ENTER, 2007).

Teleworking is part of a general movement towards new types of flexible working arrangements that have been accelerated by increased commuting times, rising office overheads and developments in information technology. Teleworking has become a familiar term in recent years and is used to cover remote working arrangements (McNaughton et al., 2014). More recently the terms 'e-working or electronic working' have been adopted as a more accurate description of the increased usage of information and communication technologies in facilitating working independent of location. It is not a new form of work, but a rather new way of organizing working arrangements. E-working or 'teleworking' can refer to self-employed workers with several clients who may spend all of their working time at home. It also refers to direct employees of companies who commute by agreement with the employer and work all or part of their working week from home. More traditional occupations such as sales representatives and engineers are sometimes referred to as "nomadic e-workers" given their use of a car as a mobile office. "Hotdesking", where a number of people share desk facilities because they spend substantial proportions of their time outside the office is sometimes included under the larger umbrella term of 'telework or e-work' as are workers employed in call centres (Irish Business and Employers Confederation, 2002). Recent developments in information and communications technology services now mean that a far greater range of jobs can be conducted away from the traditional office environment. Telework, working from home and other convenient commute reduction alternatives to the main office can be key strategies for helping employees balance personal and work responsibilities (Flickess, 2014). Telework allows employees flexibility and control over their schedules (Strum, 2001; Hill et al., 1998). There have been different definitions of teleworking, however, summarizing all dimensions and conceptual criteria used by different authors, and admitting Qvortrup's (1998) claims that there is no reason to believe that an ambiguous and restrictive definition can be established for such a diverse phenomenon as teleworking. Huws et al. (1990) argues that three components are mandatory to recognize somebody as a teleworker: working in a remote location from an employer or contractor's premises; use of IT technologies to complete work; and use of communications technologies to communicate for work purposes (with employer,

colleagues, clients, etc.). According to Kamerade and Burchell (2004), there are three basic dimensions along which different types of telework can vary in addition to the three mandatory components: the location of remote work (Lim and Teo, 2000), combining home and traditional office, in satellite offices, telecentres (Bussing, 1998); the proportion of working time spent on remote working (Daniels et al., 2001); permanent or occasional work at home (Bussing, 1998); and employment status e.g. freelancer, employed, self-employed, etc. (Daniels et al., 2001). Thus, there can be a wider variety of different types of teleworkers and organizational forms of their work (Lister, 2015). These are flexible enough to meet diverse analytical purposes and to concentrate on the teleworking specifics in different contexts (Kamerade and Burchell, 2004). There are a number of benefits of telework. These are: reduced environmental impacts, improved flexibility and work-life balance, business productivity and cost savings, increased workforce participation, and Government and business continuity.

According to Flexibility Ltd. (2000), time wasted in traffic jams can represent a significant loss to the economy, as evidenced by a United Kingdom report in 2000 which estimated the net public loss to the UK economy at £20 billion. Environmental benefits from increased telework through reduced traffic congestion and carbon emissions will assist to address air quality and the quality of life in metropolitan areas. A study by Mitchell and Trodd (1994) observed the travel behaviour of a small sample of practicing UK teleworkers and found an average reduction in commute of 113 miles per week (even after creating allowances for remaining travel to work and additional non-work trips). Half the study sample reported no extra non-work trips. The commutes of this sample of teleworkers were considerably longer than the average journey to work – 21 miles compared to the national average at the time of 8.3 miles. On the postulation that long distance commuters may more likely find telework attractive, the study estimated a saving in car use nationally of 5-12%. Groups such as mature age workers, workers with caring responsibilities, workers with disabilities, and workers in regional and rural areas can be facilitated and increase workforce participation by using and applying greater flexible work opportunities, such as teleworking. Efficiencies can also be achieved through reduction in travel costs and office space, although this needs to be balanced against additional investment in human resource support, ICT equipment and support (Maruyama and Tietze, 2013). Business savings can be realized by providing flexible telework arrangements which improve worker productivity, efficiency and organizational effectiveness and reduce staff turnover and absenteeism. Organizations that have established business cases and invested in telework, are reaping the benefits because they outweigh the costs (Sensis, 2005). Teleworking is viewed as an attractive working arrangement among employees generally, as increased flexibility of working hours and location of work can be used to meet the changing needs of people throughout their lives (Pirdavani et al., 2013). Government and business continuity are enhanced by telework and in recent times, these have been reaffirmed by the disruption created by actual and potential catastrophes such as the tsunami in Asia, Hurricane Katrina in the United States and the current Covid-19 pandemic. During human and natural disasters, the ability to work in a decentralized manner, away from central business locations, can allow businesses and governments to provide ongoing services (ATAC, 2006).

Barriers of Teleworking

The Sensis Report (2005) suggests that some businesses that did not have employees teleworking said that the main barrier was a belief that it was not suitable for their

type of work. Teleworking is uncommon in occupations which involve servicing clients directly such as in retail, health and community services, cultural and recreational services and accommodation, cafes and restaurants. A large number of labour intensive jobs such as in agriculture, mining, manufacturing and construction require on-site, hands-on work which does not encourage telework (Argone, 2015). In the 'cultural resistance' there are many managers who retain a traditional view of working practice and do not subscribe to employees working effectively without being located in an office. Hence the perception that people who telework are not committed to their jobs. The management of teleworkers is also hard work and few managers possess the skills or training to supervise remote working staff effectively. There is evidence that there are some regulatory barriers which impact the ability of organizations to undertake telework. Overtime rates, penalty rates and specified working hours can make hours, flexibility and the ability to work outside standard hours away from the traditional work environment costly and difficult. Hence, 'agreement making' allows employees and employers to negotiate working arrangements that are fashioned to meet the employees' needs and workplace. Employers have the responsibility of taking steps to ensure and secure the health and safety of their employees. If there is a formal home-based flexible work agreement with an employee, the employer would generally be responsible for conducting a health and safety assessment of the employees' home to meet their general duty of care towards employees. This may be a very financially tasking exercise for SBEs and can act as a disincentive to allowing formal telework (Parade, 2016). Privacy and security are major issues in teleworking because organizations have the responsibility to exercise care in the dissemination and use of private information and need to maintain the security of their assets and information which extends even to teleworkers away from the office. In the Sensis Report (2005) 13 per cent of teleworkers report a negative impact of having to work longer hours. Working in a home location may make it hard for teleworkers to separate from work and this may end up in a distortion of home life boundaries (Obi, 2015). Isolation is a major barrier for teleworkers because humans are social in nature and love to interact as part of living. The reclusive life is something teleworkers are usually not primed for. Teleworkers may also think that their profession is being hampered by a lack of social contact with their contemporaries and managers and by being absent in the office (Australian Telework Advisory Committee, 2006). Ndubisi and Kahraman (2005) have outlined potential costs and barriers of teleworking in relation to the individual, organisation, and society at large.

In February 2005, the UK government announced a public consultation on extending the British flexible working laws that were introduced in April 2003 (DTI, 2005). In 2003, parents of children under six and disabled children under eighteen were given the right to request flexible working patterns, which included part-time working, variations in working hours and home working. Employers have a duty to consider such requests seriously (Swan, 2015). A government survey estimated that thirteen per cent of employees requested a change to working patterns in the first year of this law. Eighty-six percent of those requests were wholly or partially accepted, meaning that around 80,000 people had new flexible working patterns. Ten per cent of those requests concerned working from home on a regular basis (DTI, 2004). If the home working ratio seen in the first year is a reliable predictor, this means perhaps 100,000 further people will be working from home on a regular basis (DTI, 2005). While more formal aspects of teleworking are the subject of widely available advice

concerning legal health and safety and some technology and work organization aspects (DTI, 2003), there are deeper unaddressed issues.

Technology is viewed as the backbone for any teleworking program and managing it is critical in the sustainability and support of teleworking. Technology is the enabler of teleworking (Siha et al., 2006).

There are several technology options to help implement telework and according to the Viack Corporation (2005) it is safe to say that the inherent technology needs for a teleworker are the following: computer, internet connectivity, e-mail program, telephone, and fax machine.

The highest concern expressed from managements in organizations has been the fear of having less control over employees who work from home, ensuring that they remain productive and efficient. This particular concern can be addressed by introducing a richer medium for continuous communications, such as an online communication collaboration tool suite. By equipping teleworkers with high speed internet, a web camera, headset and an online communications solution, managers will be in touch with teleworkers at all times (Drewa, 2015; Jude, 2014). An effective and useful tool, it should include such features as real-time video, telephone-quality audio and presence detection systems to allow better interaction between the main office and teleworkers. Using a combination of communication methods, such as online meetings, e-mail, fax and phone, will provide a comprehensive telework program.

Positive outcomes such as improved productivity, organizational loyalty and belonging, job satisfaction, and employee retention and attraction often top lists of the advantages of teleworking (Bailey and Kurland, 2002), but an increasing number of people are teleworking to a large extent as an ordinary element of their job. In contemporary times it is unrepresentative of the true picture to study telework along any single factor or element, but rather in relation to varying working practices in general (Huuhtanen and Kivisto, 2003).

Teleworking is indeed a key area in ensuring businesses remain profitable and futuristic in nature as technology and flexible working patterns are very important in enhancing

development in business. The discussion on teleworking will continue as key policy makers will be continuing to be engaged to refine the teleworking adoption process.

RESEARCH METHODOLOGY

Overview of research context

The study aims to investigate the adoption of teleworking as an innovative work practice for Small Business Enterprises (SBEs) in Wales with a view to exploring the barriers and benefits that exist and its acceptance. An objective is to develop a robust framework (Jabareen, 2009), which is developed from the literature and refined with the data collection. In the context of Wales being the area in focus of the research, teleworking provides some benefits and also barriers to SBEs in its adoption process. The definition of SBE used in this study is the UK definition: according to the UK's Companies Act 2006 "a small company is defined as one that does not have a turnover of more than £6.5 million, a balance sheet total of more than £3.26 million and not more than 50 employees". It is proposed that organisations consider the challenges and opportunities of teleworking in its adoption in order to keep up with the competitive work practices that obtain in the global business environment. Teleworking adoption is hampered by barriers in its practice and implementation, such as mistrust, isolation, information management, visibility and development that can diminish the ability to adopt teleworking in their business practices.

Overview of research approach and perspective

This study attempts to develop a general framework of teleworking adoption as an innovative work practice, especially and particularly in Wales. The input for the framework development is generated specifically from the literature and tested and refined using primary data from an expert panel, focus group and interviews.

Summary of the research approach

This study applies the interpretive approach for research guidance. It adopts the Delphi method in Phase One of data collection with an online expert panel. The purpose of the expert panel involved in Phase One of data collection is to discuss and gain feedback concerning the initial version of the framework. In Phase Two of data collection an in-depth interview approach was applied via interviews with teleworkers and teleworker managers in rural and urban areas of Wales. Figure 1 below outlines the research methodology process of this study.

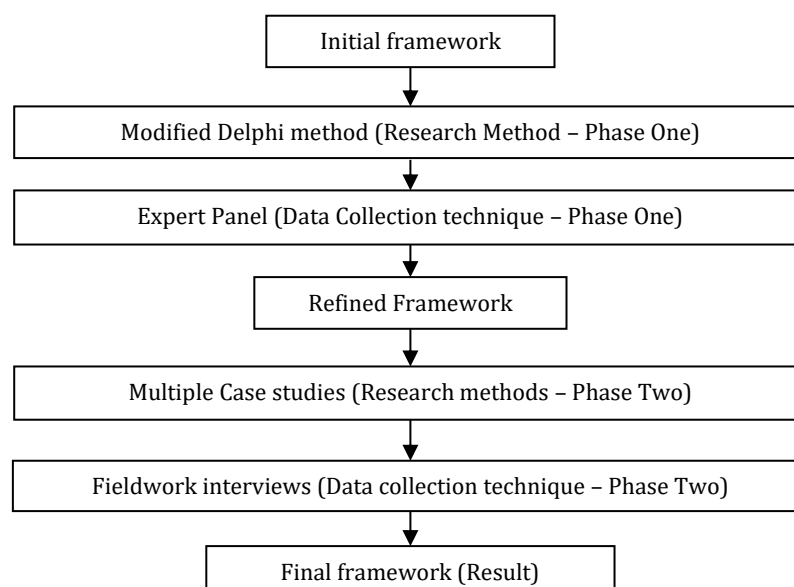


FIGURE 1: Diagram of research methodology

Summary

This study adapted many characteristics of the Delphi and in-depth interview approach. Further explanations were provided on the expert panel and fieldwork interviews, including the advantages and disadvantages of the selected approaches. In this study, content analysis and thematic analysis were applied as the main data analysis. Issues behind conducting a cross-locational study as well as a study conducted with its diverse challenges have been considered. Conducting a study in more than one location required the researchers to be concerned with a few particular matters, such as language in the Welsh context, interviewee and interviewer bias and other related issues.

RESEARCH FINDINGS

Phase One/Expert Panel

In the first phase of the data collection process for the study, a group of experts was gathered to discuss and provide feedback on the initial conceptual framework. The process of gathering a group of experts and how the discussion was conducted in this phase is described followed by the feedback received from experts that were considered in refining the initial conceptual framework. Finally, the revised framework is presented.

Selection of experts

In this first phase, the selection of the expert panel was sought from different disciplines of academic and professional expertise.

The main areas of expertise chosen for this data collection were: teleworking and small businesses, innovation, ICT, and small businesses in urban and rural Wales (or a cross-section of these areas). In the first phase, experts only consisted of academics, as small business owners or managers and staff participated in the second phase of the study

Ten confirmed participants from different areas of expertise provided a good cross-section in terms of views and perspectives. A number of experts were from the capital city of Wales (Cardiff), which generated broader ideas and deeper thought on the discussion issues as well as experts from other cities outside Cardiff (Newport and Swansea). Thus, it created an excellent combination for an expert panel in the discussion.

The initial conceptual framework

The initial conceptual framework (refer to Figure 2) was uploaded to the online bulletin board for discussion. The framework was developed based on the literature investigated for this study. The themes in the initial framework were:

- The impact of innovation through teleworking
- Business aims and strategies
- Teleworking adoption
- Teleworking adoption evaluation

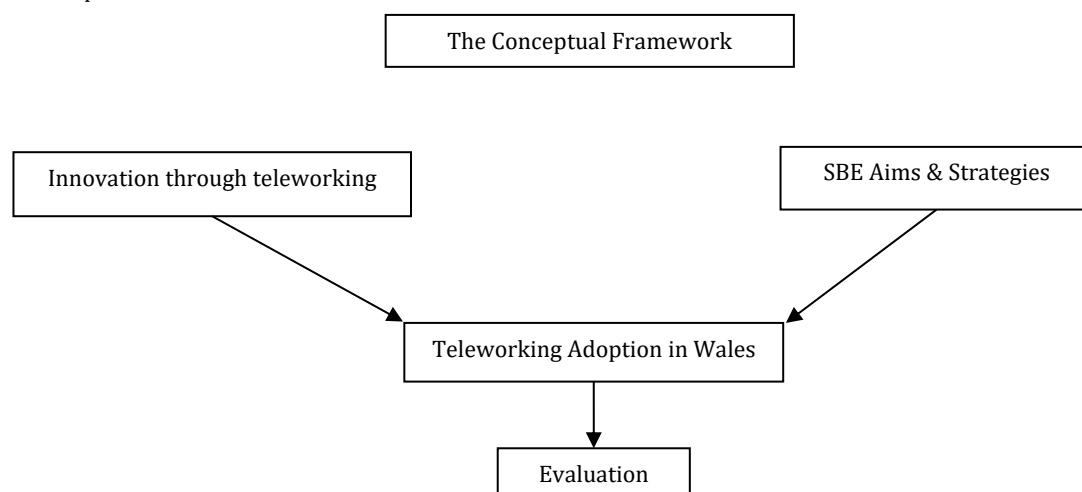


FIGURE 2 : Summary of the Conceptual Framework

Summary of the changes to the framework

The overall discussion generated a number of in-depth suggestions concerning the framework. As a result, a number of changes were made to the initial conceptual framework, in terms of the structure and its attributes. The framework still maintains its major indicators and a few attributes were added and removed to suit the framework for SBEs.

Summarizing, in Week 1 an evaluation loop was added after the teleworking adoption evaluation component. In Week 2, employees and employers were added parallel to teleworking adoption, as a new antecedent as it was the external forces that pressure small businesses to apply teleworking as an innovative tool. For Week 3, the overall impact of the listed factors was agreed by experts except the component of government policies, which were changed from some impact to major impact, particularly for both urban and rural areas.

There were comments in Week 4 in terms of the listed business strategies in the discussion being considered by the experts to be too broad and not applicable for small

businesses. Nevertheless, the listed business aims and strategies were maintained in the framework and were tested again in the next phase of data collection to see whether or not they were appropriate to remain or be removed from the framework. In addition, a new indicator, teleworking strategies, was added (teleworking development, diversification, penetration, and product development), which was more appropriate when viewed from innovation and teleworking perspectives. For the final week discussion (Week 5) no changes were made in terms of teleworking adoption indicators (4Cs) (customer, cost, convenience and communication). However, there were changes in the teleworking adoption evaluation indicator. Two attributes were dropped (work life balance and employees' satisfaction), as the attributes were not applicable to the nature of small businesses according to the experts. Finally, based on the comments and suggestions from experts the refined framework was derived, particularly for SBEs to use as a guideline in adopting teleworking as an innovative tool in their business. Figure 3 presents the general view of the refined framework based on the overall comments and suggestions from Week 1 until Week 5.

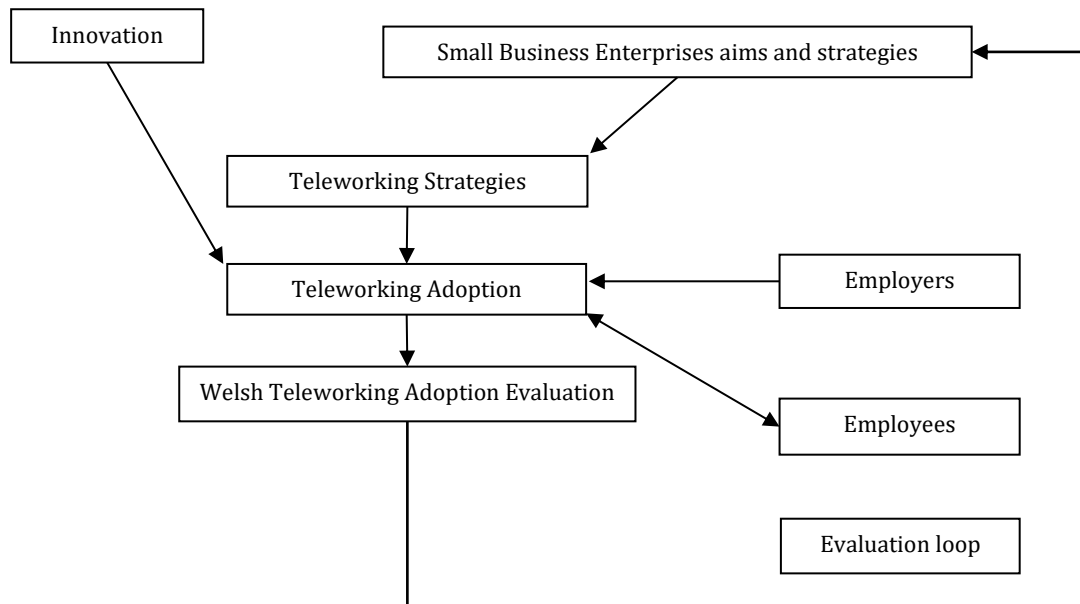


FIGURE 3 : General view of Refined Framework

Conclusion

Phase one and the expert panel involved the process of gathering the experts, the expert panel involving the conceptual framework, the expert discussion, Welsh teleworking adoption and evaluation, and the formulation of the refined framework. Based upon the findings in phase one phase two involved in-depth interviews to enhance the understanding of the study in terms of the discussion in relation to the literature and expanding the conceptual framework. This enabled the findings to be placed with regard to their significance and their contribution to knowledge. The next section of the findings highlights Phase two and the in-depth interviews. It showcases how the study was carried out and speaks about locations where the research was undertaken and its different stages of research progression.

Phase two/in-depth interviews

This section describes the data collection in Phase Two. Interviews were conducted with SBE owners or managers in Cardiff (ten interviews) and Swansea (five interviews) which are the two biggest cities in Wales and most of what happens in these two cities affects Wales. The data gathered in this phase was used to further refine the framework.

Teleworking Adoption

Both Cardiff and Swansea participants agreed that teleworking adoption helped them promote their products and services. They claimed that teleworking assisted them to have wider market coverage, create customer awareness, identify new market segments and provide more customer access to the latest information via the Internet. Employees, customers and competitors were the factors that influenced SBEs to shift from a traditional work place practice approach to teleworking adoption. There was also a self-initiating factor that prompted one SBE to adopt the teleworking option. Most of the Cardiff participants updated their business website based on their needs (new services, promotions or new items only). However, Swansea participants based their updates on a scheduled period, once a year or every two months. They communicated with customers through mobile calls, video pods, email or SMS and usually responded to emails within 1-2 days. They also agreed that teleworking adoption helped to reduce their business costs. In terms of special offers provided to customers, not all participants offered special discounts to those who purchased services or

products. Almost half of the participants offered e-catalogues on their business websites which highlights the teleworking work place availability focused on customers' needs.

Reflections on Teleworking Adoption

Teleworking adoption is a work place practice that can assist in ensuring the retention of employees and expansion of new businesses to service customers' needs for flexible solutions to their ever-dynamic requests for products and services. It is one way to reduce some business overhead costs, improve customer loyalty and manage orders systematically. A study by Selitto (2004) on teleworking adoption using the internet for business practices experienced the benefits of ICT through teleworking and the Internet in business processes activities. The use of teleworking had allowed businesses to increase their sales to new customers even though located in remote areas. Canavan, Henchion and O'Reilly (2007) supported that teleworking also can be a significant channel for managing information and developing customer relationships.

The refined framework from Phase One listed the 4Cs - customer, cost, convenience, and communication — as the attributes for Teleworking adoption. Based on the findings from the field interviews, the owners or managers of SBEs in Cardiff and Swansea agreed that the attributes of the 4Cs supported Teleworking adoption. For the final framework, all the listed attributes of the 4Cs were retained. Thus, no changes were made for Teleworking adoption attributes for the final framework. The antecedents of customers and competitors will also be maintained with an inclusion of employers and employees under the 'convenience' indicator for the final framework.

Teleworking Adoption Performance Evaluation

The Teleworking adoption evaluation component consists of employee and customer satisfaction, lower business overhead cost and revenue, value for money, work life balance and inventory. The evaluation of teleworking adoption performance is essential for SBEs. The purpose of the evaluation is to measure the effectiveness of teleworking adoption in contributing to business performance.

Cardiff

Most SBEs measured their telework adoption performance through the response received by the employees and customers, the increase of sales and demand, business savings and the number of business customers. Overall, teleworking adoption did affect their revenue and value for money, sales and reduced business overhead and customer and employee satisfaction.

Swansea

Only two SBEs measured their teleworking adoption performance. Through the adoption of teleworking, they were able to have better value for money and improve profits, increase in demand for orders and services, and more people were aware of their business. The adoption of teleworking helped them to increase revenue and value, sales and lower business overhead costs and employee and customer satisfaction. One of the SBEs suggested that another measure that could be considered in measuring the performance of teleworking was web visitor traffic because most of the participants' business is based on the internet when customers log on to receive services.

Summary of Teleworking adoption evaluation

Both Cardiff and Swansea participants received positive business growth with the adoption of teleworking in the business. Nevertheless, not many of them formally evaluated the success of their new teleworking business approach. The evaluation of teleworking adoption performance is important to review and evaluate the success of this new approach. The participants perceived that by adopting teleworking in the businesses they were able to have better value for money and increase revenue, sales and improve their customer and employee satisfaction (based on their informal evaluation). A few participants also suggested that the performance of teleworking adoption could be measured by the number of web visitors because it related directly to their business.

Reflections for Teleworking adoption evaluation

Teleworking adoption evaluation is important, particularly for SBEs in evaluating the success of teleworking adoption in business operations and as a workplace practice. In the refined framework (Phase One), attributes are listed: customer and employee satisfaction, revenue and value of money, and lower business overhead cost, work life balance and inventory. Based on the findings gathered from the field interviews with SBE owners and managers, most of them indicated that teleworking adoption contributes to increased customer and employee satisfaction and sales revenue and value for money. Chaffey et al. (2006) classified the measurement of teleworking adoption into different categories, business effectiveness, business promotion effectiveness, and ICT effectiveness. Customer and employee satisfaction and revenue and value for money indicators are considered under business promotion effectiveness. One participant suggested that web traffic could be considered as another method to evaluate the success of teleworking adoption.

For the final framework, four attributes remain. Even though the results from the interviews did not support the inventory indicator as one of the methods to evaluate teleworking adoption performance, it was decided to maintain the attribute to be tested for future research based on the feedback from the experts in Phase One of the data collection.

A new attribute was added for the final framework, web traffic. This is based on the findings gathered from the interviews where the participants suggested that web traffic could be considered as one of the ways to measure the effectiveness of teleworking adoption.

Web traffic is categorized under ICT Internet effectiveness feeding teleworking (Chaffey, et al., 2006). Studies by Evans and King (1999), Sterne (2002), and Stout (1997) indicated that website performance can be evaluated through network statistics, such as hit rate and log analysis. In addition, Suh, Lim, Hwang and Kim (2004), in their study of real time web evaluation, used automated tools to analyses and numerically measure data (such as traffic-based and time-based data from websites).

The revised framework

Figure 4 presents an overview of the revised framework for this study. This refined framework was based on the findings from the data collection in Phase Two (interviews) and considered the revised framework in Phase One (an online discussion).

The framework discusses the innovation indicator that contributes to the factors of adoption of teleworking by SBEs. The level of business innovation in the listed factors provides the impact on the adoption of teleworking as a workplace practice. The results from the study indicate that one new antecedent does influence SBEs in adopting teleworking in the business: *type of business* or *sector*. The impact of the factors of innovation might vary according to the city and country (developing or less developed). The framework also suggests that four business aims and strategies can be applied by SBEs in respect of their business development. Two indicators were merged: the cooperation strategy and strategic alliance. The rationale to merge these indicators is that the experts considered that there was an overlap between cooperation strategy and strategic alliance. Based on the experts, these two indicators are applicable when different business environments are considered.

For teleworking strategies, four of the teleworking strategies were incorporated in the final framework — teleworking development, diversification, teleworking penetration, and product development. No changes were made to the final framework, as including the customer and competitor antecedents except the inclusion and putting together of customers, employees and employers on the same box because they primarily want the same thing which is satisfaction and can influence SBEs in adopting teleworking. There are changes in the listed teleworking adoption performance evaluation attributes for the final framework. A new attribute, web traffic was added for Teleworking adoption performance evaluation.

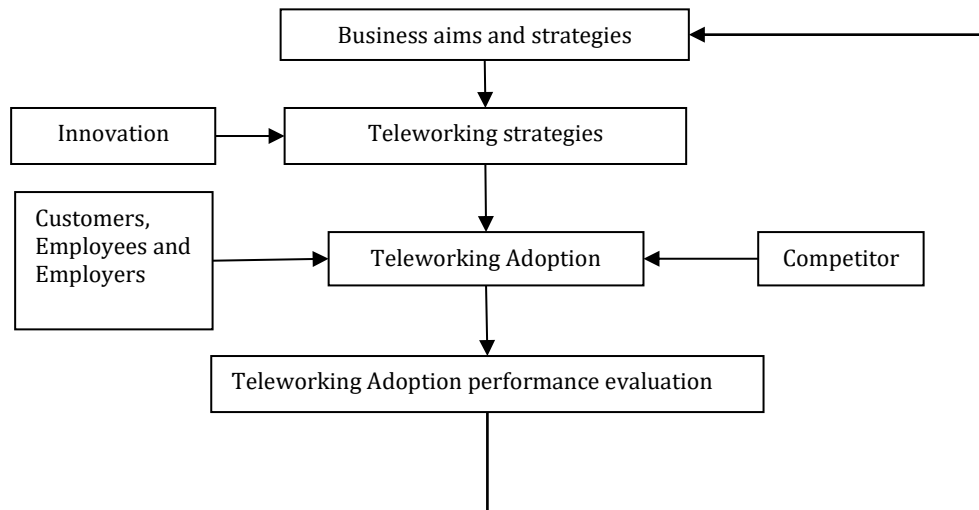


FIGURE 4: Overview of final framework

Summary of the field research

The study initially started by developing the initial framework based on the existing literature. The study involved two phases of data collection. In Phase One, the framework was refined using the expert panel. Based on the expert panel discussions, a few alterations were made to the framework. The alterations involved narrowing the macro perspective of the study to a micro perspective where the teleworking strategies indicator was added in the refined framework. An evaluation loop was added as suggested by the experts. New antecedents were also added in relation to the Teleworking Adoption Performance indicator: customers, employee and employers and competitors. Further refinement of the framework was continued in Phase Two, where the interviews with SBEs' owners and/or managers took place. The interview sessions involved SBEs' owners and/or managers from Cardiff and Swansea. In this phase, a new antecedent was added (type of business/sector) that relates to innovation in adopting teleworking.

This study has presented a number of contributions for research and provides greater insight to SBEs in adopting teleworking as an innovative work practice in their businesses. The final framework is designed for SBEs; however, it also offers benefits to researchers, development consultants, and policy makers. Even though this study has involved developing the telework framework for SBEs, it also presents the similarities and differences between the two cities examined. The study showed that SBEs in Cardiff adopt teleworking better as an innovative work practice compared to their counterpart, Swansea. In terms of business aims and strategies, and teleworking strategies it found that there were a number of similarities concerning the strategies applied by these SBEs (Cardiff and Swansea).

This study contributes to the development of the body of research in the area of innovation and teleworking adoption in SBEs in South Wales. The study also raised a number of questions for future research. As a result, it provides greater input to the results of this study and the framework itself. Thus, the study can be applied to SBEs in other parts of the United Kingdom as well.

CONCLUSION

Summary of the study

This study proposed the telework adoption framework as an innovative work practice for small business enterprises, particularly in Wales with focus on key Welsh cities. The framework was initially developed based on the literature.

The proposed framework could be incorporated as part of the business strategies for small business enterprises in order to assist owners and managers (who are often not futuristic in their planning) to adopt teleworking as an innovative workplace practice. This study presents the main indicators in the framework, which are teleworking, Wales teleworking aims and strategies (which will lead to the adoption of this work pattern as the standard, but most especially the small business enterprises), small business enterprises strategies, the innovation strategies, and finally, the evaluation of teleworking performance and infiltration.

In adopting a qualitative research approach, an online focus group and in-depth interviews were conducted in this study. In the first phase of data collection, an online focus group consisted of experts from various disciplines. The main areas of expertise sought in this study were teleworking, e-commerce and small businesses, innovation, ICT, and small businesses in Wales and its cities (or a cross-section of these areas). Some academics, policy makers and business owners were selected for the expert panels for the discussion, as it provided greater thought and perspective in terms of the theory and knowledge base. The selection of experts was based on publication records and experience from the regulatory and business perspective: journal articles, conference papers, book chapters, other relevant literature and recommendations by peers. The discussion was conducted in five rounds. Each round was conducted on a weekly basis: one round per week. Each round discussed a different topic based on the structure of the initial framework. The topic of discussion was designed according to the structure of the initial framework. The results from the discussion were used to refine the proposed framework. The second phase of data collection occurred after the modification of the framework from Phase One. Phase Two consisted of in-depth interviews; fieldwork interviews were conducted among small business owners or managers.

For this study, businesses in South Wales with focus on key cities, Cardiff and Swansea, were selected. The interview questions were developed from the first phase based on the feedback from the expert panel. The results from the fieldwork interviews were analysed and the final framework was presented.

Contribution to Knowledge

This study contributes to the body of knowledge in respect of the use of teleworking as an innovative tool by SBEs in South Wales. It has been observed that more attention is needed to support SBEs in adopting teleworking as an innovative workplace practice.

Many previous studies have focused on the use of teleworking and on a larger scale, ICT in general by larger enterprises in developed countries and less concentrate on SBEs. SBEs have unique characteristics, which make them different from larger enterprises. Also, SBEs in semi-developed countries like Wales have different needs to SBEs in developed countries. This study has involved the development of a framework for the use of teleworking as an innovation tool and workplace practice, particularly for SBEs in Wales and highlighting the rural and urban divide of businesses.

The use of teleworking is a welcome alternative or option to the traditional nine to five work routines and services. For SBEs, the adoption of teleworking offers many benefits and opportunities to enhance business growth. The findings of this study contribute to a better understanding of teleworking and innovation in SBEs in South Wales, particularly owners and managers in performing a transition from traditional to a new work practice approach, which can help to improve their productivity as well as to stay competitive in the market and flexible and attractive to high quality employees. In response to the research question how to encourage the adoption of telework as an innovative work practice in South Wales the new approach to teleworking by SBEs can assist in making innovation the framework on which modern businesses are built, especially in respect of personalizing services and providing more added value to encourage employees better, to be at the cutting edge of technology by teleworking application to business and to encourage repeat customers or customer loyalty with good flexible business service.

Applying the Framework

There are many ways to apply the final framework. From the perspective of SBEs, the framework can be applied by SBE owners or managers to evaluate the performance of the adoption of teleworking. The owners or managers could revise their business aims and strategies, and innovation strategies if the adoption of teleworking in the workplace does not contribute to the outcomes as expected. The framework will provide better insights to professional consultants or development for assisting adopter and non-adopter SBEs to focus on which areas they need to concentrate if any complexities arise. This framework can be presented as an instructive manual for policy makers. Through this framework the policy makers could determine the areas of teleworking innovation in SBEs in Wales that require support. The application of the framework can be through the ICT infrastructure, government, skilled workers and the organisation environment.

Generalisability

The main objective of the study was to develop a framework concerning the adoption of teleworking as a workplace innovation by small business enterprises in Wales. The framework is a generic framework and does not particularly focus on a particular industry. Thus, this framework is applicable for SBEs, researchers, professional consultants, and policy makers to assist them in making decisions concerning the use of teleworking as a workplace innovation. This study was conducted in South Wales, United Kingdom. Nevertheless, this study was not a comparative study of the similarities and differences in the cities in Wales. One issue that was highlighted is the available ICT telecommunication infrastructure to make teleworking an acceptable work form. The findings indicated that SBEs in urban Wales enjoy better ICT telecommunication infrastructure than their counterparts in rural Wales. Another finding is that government policies in Wales are actively geared to the development programmes for SBEs and also becoming open to assisting

SBEs in embracing more ICT infrastructure which in turn will enhance the adoption of teleworking. The role of the owner or manager of SBEs is important to overcome the shortcomings and contribute to the use of teleworking as an innovative work practice. The driving forces – employees, customers and competitors – play a part in encouraging the use of teleworking in the workplace in the SBE environment as well as to meet current business trends. The framework could be applied in other countries to identify such differences.

Limitations

This study was conducted over four years. In Phase Two, the fieldwork interviews were conducted with SBE owners or managers. The researchers are aware of the potential bias that may occur. However, it is almost impossible to avoid bias, particularly in respect of the type of selection method applied (respondents were contacted through the Internet) when the emerging group took place (Menou, 1999). The study was also limited in terms of the absence of the viewpoint of offline non-teleworking practicing SBEs, who have tried, but failed, to overcome obstacles or choose not to adopt teleworking as a workplace innovation.

Future Study

This study has produced, reviewed and refined a framework for the adoption of teleworking as a workplace innovation by SBEs in Wales. However, it does not mean the work is complete. This study has demonstrated that much of the 'engagement' literature comes from five major components: teleworking and small businesses, innovation, ICT, and small businesses in urban and rural Wales (or a cross-section of these areas). A framework has been developed and (as observed) it is useful for SBEs, researchers, development consultants and policy makers.

An approach that can be considered in the next phase of the study is to focus on both adopters and non-adopters, and to conduct a longitudinal study to investigate the period taken by existing non-adopters and their transition to embracing the adoption of teleworking. The next phase is to ensure that the framework could be applied to SBEs more generally. This requires extended fieldwork with teleworking and non-teleworking practicing SBEs. The application of this framework should be practical and not theoretical (nevertheless, the use of the framework should be rigorous, as developed in this study).

The purpose of this study was to gain an understanding of the adoption of teleworking as an innovative workplace practice with a limited number of participants, even though this study focuses on a small selection of SBEs in Wales. The findings of this study highlight the problems faced (to a large extent), and the solutions for (to a certain extent) SBEs practicing teleworking in Wales. In this study, the discussion and the framework are presented. The framework can provide guidelines for SBEs. For future research, the framework can be applied in further real environments to evaluate its practicality. In addition, it will also be possible to consider focusing the application of the framework in certain sectors, such as tourism, manufacturing, retail or others instead of generalizing the framework as a whole. For the time being, the framework presented in this study is very practical for SBEs, researchers, professional consultants, developers, and policy makers to use as a tool for the development of the adoption of teleworking in SBEs.

The framework can be applied in other countries to focus the study on particular industries, and consider other determinants, such as type of business, maturity stage of the business, and others. Another important contribution

to the research would be a comparative study with several other countries with the Welsh structure in the context of characteristics of owner/managers and how they adopt the technology in relation to teleworking. As this study is a qualitative study, there is a need to encourage both qualitative and quantitative data collection to be applied as research approaches for further study.

This study highlights the emerging issues for further research. One emerging issue raised is how to encourage more small business enterprises in developed and developing countries to shift their traditional workplace style and behaviour to accommodate the adoption of teleworking. In relation to other adoption factors (such as infrastructure, financial issues, and government policies) there are some alternative ways to address and facilitate teleworking adoption among SBEs in developed and developing countries. Another issue is how to educate SBE owner/managers and employees to apply appropriate business and innovative strategies for their business to grow and expand, which are often less formal. These issues are not only relevant to SBEs, but also to policy makers as they attempt to transform the perception, confidence, and ways of managing the business of the adopter and non-adopter teleworking practicing small businesses and enforcing and infusing technologically innovative ideas. Finally, more study in this particular area should be encouraged as it is important to support the development of SBEs as a domain and their economic growth overall.

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