ABSTRACT: This article will explore incentives, enablers and barriers to website use for SME managers. Specifically we results of a qualitative study examining interest levels in a web-resource developed by the authors and the reasons underpinning this; how such a website would be used (useful content, features and formats); extra or alternative support requirements; and attitudinal or behavioural change following use. We find some indication that individuals are not satisfied with existing, known resources and that content is hard to find and time consuming, text too small and layout not task focused (i.e. delivery presents barriers to use); all of which lowers confidence in resources and perceived self-efficacy for SMEs. Such barriers do not encourage engagement nor generate the type of trusted support reportedly wanted by SMEs in this pilot.

KEYWORDS: small and medium size business (SMEs) engagement, online resource, social learning, healthy workplace, responsible business practice, perceived self-efficacy.

INTRODUCTION

Little research has been conducted on the maximisation of small and medium enterprise (SME) support, even less on the use of web-resources as a support mechanism. It has been noted that SME owner-managers do not make the most of the general support mechanisms which are on offer (Audet & St-Jean, 2007); however survey results indicate that use of resources increase when perception and awareness of public services was higher. Conversely, the use decreases with an increase in the experience of the owner manager. They suggest that, overall, there was a lack of knowledge about support on offer, and suggested a lack of awareness of services rather than inherent difficulties in the services themselves (Audet & St-Jean, 2007). This problem of awareness is compounded by the (necessarily) narrow focus of SMEs as businesses, meaning any support needs to be highly focused, comprehensive, cheap, easily accessible and not time consuming (Brazier, 2004).
The increasing need amongst SMEs to have ready access to data referring to responsible business practice means that website delivery of these materials is an important mechanism to assess. We report the results from a project seeking to evaluate the use of a dedicated web-based resource (“Spring”) made available to selected SMEs in Cornwall, UK between July and September 2013. “Spring” was designed as a pilot bespoke resource focused on responsible business practice; the piloting and evaluation of its use aimed to collect data relating to the usefulness and applicability of content delivery from the perspective of SME managers.

We aimed to identify incentives, enablers and barriers to website use for SME managers, specifically: (1) interest levels in a web-resource and the reasons underpinning this; (2) how the website would be used (useful content, features and formats); (3) extra or alternative support requirements; and (4) attitudinal or behavioural change following use.

In this pilot we do assume possible dissatisfaction with existing web resources and so opportunity to improve content and method of what is presented on web resources.

More broadly, we report on potential mechanisms through which SMEs might make use of web-based resources, and how well these might meet SME needs. Identifying enablers and barriers to website use also has wider applicability in the promotion of websites to increase general awareness and uptake.

**THEORETICAL UNDERPINNING**

Social learning theory potentially provides a platform from which to understand the mechanisms and difficulties faced when providing (particularly online) support to SMEs. More traditional learning theories hold that it is internal unconscious behaviour which shapes outcomes, however such a psychodynamic approach neglects socially situated complexity (Bandura, 1977). Social learning theory posits that neither internal nor external factors primarily determine behaviour; rather it is the interaction between behaviour and external controls.

The four main features of social learning are all relevant to the case of SME support mechanisms: learning by direct experience, learning by modelling other behaviours, regulator processes in learning, and the reciprocal influence process (Bandura, 1977). In order for learning to be most effective under social learning theory, there must be a demonstrable change in understanding, made through social interactions, at the individual and broader social level (Reed et al., 2010).

Our starting point in this study was the change in understanding in a very broad sense, not relating just to business information, but to underlying constructs of perceived self-efficacy and social identity (i.e. self-efficacy: confidence in own ability to carry out task or behaviour, feeling able, supported, barriers reduced) plus ‘outcome expectancy’ (belief in relation to outcomes likely from a behaviour). While some identify incentives and barriers for SME engagement with responsible business practice, self-efficacy has to be perceived. Therefore, we explored what are the incentives/barriers and enablers perceived and prioritized by Cornish SMEs?
Social learning might operate for SMEs through many potential mechanisms. Firstly, a sharing of knowledge between small companies which for Boden, Avram, Bannon, and Wulf (2012) is itself reliant on four key areas: a maintenance of awareness; collaboration and shared repositories; time spent at other geographic sites; and “human bridges.” For Ceci and Iubatti (2012), however, it is personal relationships which are central. Innovation diffuses through businesses through a unique context of personal and professional human relationships. Using these personal relationships in both formal and informal settings provides a shared vision which can potentially be a key motivator for learning (Saunders, Gray, & Goregaokar, 2014).

The use of technology (and, more recently, web-based technology) has helped to maximise social learning through information sharing amongst SMEs. Industry norms shifted in the mid-1990s; and an expectation was placed on internet use as beneficial (Simmons, Durkin, McGowan, & Armstrong, 2007). However adoption was not universal, and remains higher amongst those companies with a pre-existing desire to use technology (Stockdale & Standing, 2006) or larger SMEs (Burke, 2010). Barriers to adoption include a fear of the unknown (in terms of technology) (Burke, 2010) which could be countered with increased customisation of resources (Son & Goldstone, 2011). In Cornwall and other rural and isolated contexts, there is a real need to make the most of online resources even if companies or individuals do not consider themselves particularly technologically proficient.

Links between higher education institutions and SMEs have necessarily been somewhat limited, with often topic-based interactions based around current need. Key to developing these relationships and any resource is the identification of those SME needs, as well as engagement at all levels of a company and meaningful discussions (Waring, Johnston, McGrane, Nguyen, & Scullion, 2013). Projects such as the LEAD programme for SME owner-managers (George, 2013) have demonstrated that integration and access to Higher Education Institutions (HEIs) is beneficial to businesses. The success of this programme, according to evaluators, is attributed to the peer-to-peer learning platforms and the trust-based group discussions, both the central tenets of social learning theory.

There is a noted lack of research conducted in this field in general (Saunders et al., 2014), meaning the present study is necessarily exploratory. Understanding the mechanisms of action through which comprehensive interactions between HEIs and SMEs might accrue is important. We therefore sought to understand the way in which SMEs are supported in a general context, how social learning might contribute to such support, the ways in which information technologies might impact, and more specifically how HEIs might interact with SMEs through comprehensive use of online resources.

**METHODOLOGY**

This pilot study was a collaboration between the HE research organisation (the European Centre for Environment and Human Health; www.ecehh.org), a local SME (ffunction; http://ffunction.co/ which is a user experience, research focused design agency based in Bristol & Cornwall in the UK), and an external evaluator (C.G.). There were four aims of this evaluation project:

1. Identify relevant interests of SME owner-manager in Cornwall in using a website for responsible practice (barriers and enablers);
2. Identify preferred information types and presentation styles;
3. Explore preferred levels of support to the resource;
4. Explore outcomes from using the site.

Phase 1: Website development/Development Phase
The first stage of the evaluation was the creation of the web resource and study materials. A prototype pilot website (www.springresponsible.co.uk, now offline - Figure 1) was developed in iteratively collaboration with the Cornish SME, focusing on responsible business practice. Content was based on national evidence around healthy and environmentally sustainable workplaces and responsible business practice (e.g. (Black, 2008; Burton, 2010)), and refined via pre-pilot work with businesses. As part of this first pre-pilot stage, a small (n=10) sample of local SME owner-managers approached through contacts at the European Centre gave feedback on the content headings for the website and on the invitation to the website and study, and on the questionnaires used, in terms of the language, comprehension and validity.

Section headings included on the pilot site were refined from these pre-pilot interviews and from conversations with staff, web developers and SMEs. Topic headings included: Green business, Health, Safety and Welfare, Healthier Staff, Managing Staff, and an overview of “Responsible business practice”. The source of evidence for the content subsequently developed for these areas, even if generic, was derived from the best available research and policy evidence.

Information was also provided on the site relating to the research study, consent, and data protection. Website content was provided in a range of formats (video, text, podcast, filtering tools) and engagement styles (case studies, “ask the experts,” events, guidelines, checklists, online tools, templates, downloads, articles, quotes and FAQs).

Phase 2: Data Collection
1. Via 21 online questionnaires pre and post website use
2. Phone Interviews with 10 users pre and post website use
3. Tracking website use patterns via google analytics

Part of the recruitment message was that participants would need to complete an online questionnaire for full access to the site (the project was judged without ethical concern by University of Exeter Medical School Ethics Board). In order to best address our aims amongst this hard-to-reach population, qualitative data were collected which sought to uncover the underlying mechanisms of website use and utility through individual interviews (Creswell, 2007). In this way, the experiences (and actual use) of website users were taken for and of themselves, both in description and structure (Berg, 1989). To collect these data, topic-specific knowledgeable respondents must be interviewed using targeted questions, and the data should be subject to systematic analysis (Moustakas, 1994).
Sampling
The use of a sampling frame in qualitative enquiry is often impractical, especially with hard-to-reach populations such as small and busy SMEs (Creswell, 2007). Rather, the use of more nuanced measures and a pragmatic approach to selection is often required. Such “snowball” sampling (Berg, 1989) was used in the selection of individuals for this analysis.

After developing test materials, email invitations were sent to more than 50 business community stakeholders (including some already interacting with the European Centre to form a distribution network through which information about the pilot was disseminated. Messages were also sent via email contact lists, advertising in online bulletins and via business agency newsletters. To a small extent Twitter and advertising on other business websites were used concurrently. Non-participation was investigated through a multiple choice question administered at the point of refusal.

Twenty one SME owner-managers completed pre and post website-use questionnaires; and from them, 10 SME owner-managers took the option of giving phone interviews as well, we were also able to track users’ use of the web-resource. These ten SME owner-managers (ensuring only single individuals from one company) used the website and gave feedback via semi-structured telephone interviewse. These individuals were all considered “knowledgeable individuals” in the field (Moustakas, 1994); and interviews were in exchange for an hours “Healthy Workplace” consultancy offered by one the authors (JA), a Workplace Specialist.

All participating companies were based in Cornwall, UK and ranged from five to 30 employees, with over half being “small” (i.e. 5-10). A broad range of sectors were included in the sample (Figure 2), with companies related to service and retail, digital technologies, tourism, medical and health, food and drink as well as renewables and carbon technologies.
Figure 2. SMEs in the Study by Business Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of SMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service and retail*</td>
<td>5</td>
</tr>
<tr>
<td>Other**</td>
<td>3</td>
</tr>
<tr>
<td>Digital Technologies (IT design and software development, Media)</td>
<td>3</td>
</tr>
<tr>
<td>Tourism, Recreation &amp; Leisure</td>
<td>3</td>
</tr>
<tr>
<td>Medical &amp; Health</td>
<td>3</td>
</tr>
<tr>
<td>Food and drink</td>
<td>3</td>
</tr>
<tr>
<td>Renewables &amp; Low Carbon Technologies</td>
<td>1</td>
</tr>
</tbody>
</table>

*Logistics, Electrical circuit inspector, Retail, Legal admin, Timber merchant
**Agriculture & food (community farm), Construction and wholesale, Survival training

Questionnaires and interviews
Questionnaires only

Interviews were recorded contemporaneously onto a desk computer and backed up onto cloud storage (Google Docs); data were then analysed thematically (Creswell, 2007). Statements were trawled and recurrent themes identified, bringing together the common ground between respondents (although it should be recognised that these unavoidably reflect the interview schedule to some extent).

RESULTS

Prior to presenting the main resulting themes emerging during the interviews conducted, we report more informal findings fed back to the team during the recruitment phase of the study.

Recruitment

Owner-managers of SMEs were asked to invest time, a scarce resource for small companies, in the evaluation. The information provided was potentially useful; however a commitment to feedback was required before access was granted. The formal process of access incorporated a reading of the study conditions on the Study Website, which was staged and proved to be a barrier for some users. Informal feedback highlighted a lack of clarity in the content of the study conditions and introduction text; recommendations were for future studies to incorporate study aims, enrolment procedures and other materials into a short video.

Key findings

Six main themes emerged from a systematic thematic analysis of interview data (i.e. data collected during phase 2 phone interviews).

1. Level of IT use; whilst clearly subject to high levels of selection bias in this instance (respondents were contacted via email), participants and their staff were largely comfortable using computers, although some reported feeling inexpert. The main uses of information technologies included online storage and document sharing, as well as blogs and social media.

A number of respondents also reported using online tutorials and webinars to access information, although only occasionally. All participants used desktop computers, with only
half reporting smartphone or touchscreen use. Importantly, social media and online fora were not key ways information was accessed. Specifically, respondents had a presence on Facebook, but did not look for information or support there. They did not take part in, or value, online fora unless with an expert-led question and answer; a theme returned to in later results.

2. **Components of website provision** were the second theme identified. Two components in particular were identified as important. The first component was the task-focused nature of individuals when using an online resource. SMEs reported using online materials to address needs only as they arise, with any subsequent use only usefully progressing from this starting point.

The second component of website provision identified was trust and reliability. Participants prioritised current and reliable information and research with links to key organisations and legislation (where appropriate). Trust resulted partly from the promotion channels used, which were ascertained primarily through logo use and email sender identity. Importantly “trusted” sources were shared between SMEs. Also, a preference was expressed for these website components to be consistently available over time, and to form part of “resource hubs” with other spin-off resources (e.g. expert-led meetings, phone support service, and potential modular courses).

3. **Website features** constituted the third theme. Participants wanted a broad range of features on a business site; the most visited and valued aspects of the Spring site were those sections which were highly specific and text-based reference items. Around half of those interviewed wanted information-tailoring tools (such as self-diagnostics) alongside regularly updating information tools.

4. **Delivery methods** of website resources were a cross-cutting theme raised in relation to many other aspects of the web content. There was a general consensus that, often, existing web resources for SMEs were difficult to navigate and somewhat overwhelming, which weakened trust in the source. Some key sites were criticised along these lines even though respondents felt the correct information was known to be present (“the right information would be there somewhere”).

Unsurprisingly, SME owner-managers first wanted to find the answer to a specific query quickly and efficiently. Any further exploration of the site was undertaken once the initial query was answered from convenient and obvious starting points. Some innovative suggestions from respondents relating to delivery in this field included: “Amazon-style” recommendations based on other visitor histories; listing or clustering of related documents; links to short courses on specific topics; course materials; and progress modules.

The second linked aspect of delivery preference was progress tracking. Respondents felt that confidence would be built through clear stepwise progression routes through materials, which could include regular emails, course module type resources, action tracking diagrams, and other tangible outputs.

The third aspect under delivery methods were responses relating to search and navigation. The topic areas included on the Spring site were praised as logical, which helped to cluster information; however, respondents felt that visitors should be provisioned with a better map of
site content, arranged list-wise, for more efficient browsing and document retrieval. Retraceable histories, along with document maps, were a higher priority than comprehensive search functions.

The Spring website had an information filter developed by the SME research partner, which was extensively tested by participants. Individuals were filtered according to level of need, and directed to the most appropriate content clusters. Feedback indicated that this novel method of direction was well received, though some users felt more clarity and specificity was needed to truly integrate and increase its usability.

5. Presentation and formatting of materials available on the website were central to user experience. The availability of video was deemed potentially useful, with the caveat that it should be concise and specific with the focus on role exploration, demonstration of good practice, or explanation of material. Video was considered most practical when combined with other text based formats.

The use of inspiring case study videos was also considered important, because they enabled efficient connectivity between SMEs and aided information sharing (something which inspired respect amongst SME owner-managers).

Use of graphics and cartoon features to support text was not universally well received. These were initially included as a self-diagnostic mechanism; and many felt that most visits to the website would be task-orientated instead. Additionally, it was reported that whilst infographics helped at an introductory level, they (in this instance) lacked specificity and detracted from the overall experience.

The presentation of material for smartphones was a key delivery mechanism highlighted. Whilst access was primarily through desktop computers, respondents wanted a range of features well adapted for smartphone and tablet use. A small number of respondents reported that specific smartphone (rather than adapted full-site) functionality would have been beneficial (such as updates and tools rather than text heavy guidelines).

6. Additional support in conjunction with website materials was reported as important to continued and effective use. Surprisingly given the popularity of the medium, online fora were not seen as efficient or relevant exchange mechanisms by respondents.

Built in functionality to be able to “ask an expert” through email exchange was viewed very positively. This asynchronous method was available in the Spring site, but was not used; nevertheless, respondents indicated that whilst use might be infrequent, it was availability that was valued. The provision of credentials to establish expertise in this context was important, as was a broad range of individual experts to cover numerous niche areas.

Alongside electronic exchanges, respondents felt that enabling phone and face-to-face contact with experts would be beneficial, something not provided in the Spring site. Participants felt that this resource would enable fact-checking and future steps to be discussed rather than worked through solitarily.
Finally, reported effects of using Spring supported the value of a website resource for SMEs in relation to Responsible Business Practice. Participant SMEs reported that there was a lasting effect, with the businesses taking subsequent action in range of areas post-use; others went on to join pre-existing business networks or organisations as a result. Barriers to use were largely organised around time constraints, but also included lack of skills, knowledge of a relevant starting point on the site, and lack of staff interest in taking any change forward.

**DISCUSSION**

Results indicate that any web resource seeking to support SMEs should be comprehensive, and should provide a wide range of materials in a number of formats, in keeping with previous findings (Brazier, 2004). The identification and provision of specific information relating to pre-existing SME problems and issues also fits with previous research in the field (Son & Goldstone, 2011; Waring et al., 2013).

Participants in this pilot project also provided rich data in response to the pilot website “Spring” which sought to address SME resource needs. At a broad level, all participants reported positive use of the site, and potential avenues were opened for future resource provision and delivery.

More specifically, data collected referred to:

- **Figure 3, Tabulation of themes identified**

<table>
<thead>
<tr>
<th>Enablers for website use:</th>
<th>To provide:</th>
<th>Support for behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Reliable and trusted resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ongoing contact and meeting needs as they arise;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A wide range of material;</td>
</tr>
<tr>
<td>To deliver:</td>
<td></td>
<td>Coherent starting points for information and incremental delivery from the initial starting point;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prompts and ways to track progress that are not just web-based</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear and concise navigation of materials;</td>
</tr>
<tr>
<td>To present:</td>
<td></td>
<td>Video and case-study material from other SMEs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Textual more than graphical information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Both desktop and smartphone features but for different purposes</td>
</tr>
<tr>
<td>To support:</td>
<td></td>
<td>Topic-based events (both online and face-to-face)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expert contact as a service or feature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Linked services related to website</td>
</tr>
<tr>
<td>Barriers to website use</td>
<td></td>
<td>Generic rather than specific information;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor navigation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Text use, either too small or poorly spaced. Too much information without chunking/ overload</td>
</tr>
<tr>
<td>Barriers to action</td>
<td></td>
<td>Time, a barrier to action but also a barrier to even seeking assistance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confidence (e.g. confidence around regulation);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expert support to assist at problem points as they arise;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical support in order to prioritise actions or motivate staff;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peer learning from other SMEs</td>
</tr>
</tbody>
</table>

The mechanisms identified by participants through which information and resources are diffused also are consistent with current thinking: an awareness and collaborative approach to
time spent on these activities results in the greatest impact (Boden et al., 2012); and group-based activities with high levels of trust are central (George, 2013). The results reported here also contribute to the limited evidence supporting social learning as a key way in which SMEs can be supported online. Direct experience of learning materials, modelling others’ learning, reinforcement through multiple exposure to material in differing formats, and the importance placed on social and trust aspects all fit with the theoretical underpinning (Bandura, 1977; Reed et al., 2010). However, caveats emerge in the current study in relation to this. Trust is important yet peer-to-peer mechanisms were not through social media such as Facebook or fora but, rather, through interaction with an expert presence or via video demonstration of other SMEs.

LIMITATIONS

We report on a case study conducted in Cornwall (UK), although indicative of similar issues elsewhere especially with the increase of SMEs globally. Most of Cornish business is small (SME) and the majority are not part of any business organisation or formal business network. Existing business organisations (e.g. Chamber of Commerce, Local Enterprise Partnership and Federation of Small Business) acknowledge that many businesses are isolated and hard to reach, and that existing web resources and other support services are not necessarily used by many, or if they are used, are not necessarily meeting SME needs.

Data collected in this pilot study evaluation were qualitative, and (unlike numeric data) results are deeper, richer and more varied; for these reasons, there are necessarily less participants included. Whilst there are clearly implications for the level of generalisability which low levels of participants can yield, there is not a cohesive argument for negation; rather, a moderation of the generalisability (Williams, 2003). Furthermore, the problems associated with wider applicability are somewhat countered by the high levels of reliability produced (Williams, 2003).

There was a seasonal effect during the recruitment phase, which fell during the summer; therefore, the amount of time participants had available for an unknown and prototype resource was reduced. In a very few cases, participants were away from the office over this period and unable to reply to emails.

Both the website and recruitment to the study occurred over a relatively short timescale, and feedback indicated that longevity was a key factor in engagement. However, an inter-related problem of such a sampling methodology is the bias inherent in contacting a small number of SMEs. In examining only those self-selecting as interested, negated are those who experience problematic or unmotivated technology use, arguably the most important group. Potentially skewing the results towards a positive view of the resource, this bias was almost unavoidable in such a small scale qualitative phase; one of the recommendations for further research is that hypotheses generated at this stage should be tested using alternative methods. –Nevertheless, to the extent that this was a website resource, those who participated were the types of SME owner-managers to use a website resource, a defined subpopulation of SMEs; a separate but important area of research would be the inclusion of SMEs who do not use a website resource.
IMPLICATIONS TO RESEARCH AND PRACTICE

The pilot Spring website was trialled and evaluated in order that the lessons learned and themes identified could be fed back to developers and improvements made. The results reported highlight the feasibility of website use to interact with SMEs, and to provide rich data for developing future appropriate SME-targeted resources.

Specific lessons were learnt with regards to what works and areas in need of support; these contribute to the very small literature linking SME and HEIs through web-based technology; future research should explore in more depth these mechanisms. Social learning emerges as a key way in which future resources might build on SME needs to deliver highly impactful material in a timely manner.

CONCLUSIONS

Even though results from this study are limited by the small sample, interesting themes were identified explicating SME use of a web-based resource. Barriers and enablers to use were reported alongside comprehensive suggestions for alternative or complimentary support. Websites are potentially time efficient and comprehensive sources of information for businesses with strict constraints on limited resources; however, the sites need to be both accessible and appropriately constructed with relevant information. Provision should come from trusted and reliable sources, providing up-to-date information and supported by access to expert knowledge in a range of formats. Confidence and perceived self-efficacy should be key aims for online resource provision, and emerge as key characteristics of success in the SMEs who use them.

FUTURE RESEARCH

The results reported in this paper highlight important aspects of web-based material delivery for SME learning. We face a “moving target” to support SMEs, in that over time, business climate changes, individual SMEs grow (or fail), and priorities shift. For this reason, identifying underlying incentives and barriers to action in an iterative and ongoing fashion is a useful way to look at SME resource needs, and to weight preferences and priorities accordingly.

However, the limitations discussed mean that future research would need to explore these hypotheses with larger and more robust samples, and, potentially, formally trial the use of a resource as an intervention. Research which attempts to hone down on specific facets of learning explicated here through rigorous before and after intervention testing would be hugely beneficial for future SME interaction. Additionally, future research should address those SMEs which will never use a website resource.

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