

Improving Marketing Communication & Innovation Strategies in the Small Business Context

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ABSTRACT. This paper is derived from another which was awarded the best paper prize at the 9th International Entrepreneurship Conference. Its theme is that while inventions and innovations make significant contributions to the growth and competitiveness of national economies, there are problems in the U.K. surrounding independent inventors (often a small, one person business) and their marketing, where there has been failure to stimulate and exploit inventions compared to other industrialised countries. There are long term implications for economic competitiveness when new ideas are lost. Organisations pursue innovations as an important route in the search for competitive advantage, but this route is fraught with difficulties for independent inventors in getting organisations to accept their products and to market them. This paper reports from and builds on an earlier study from a small business perspective which focuses, firstly, on the importance of capitalising on this source of embryonic talent and secondly, the problems within the marketing communication process between potential adopter marketing organisations and independent inventors. A purposive, non-random sample was drawn, consisting of prominent independent inventors (exemplars of good practice) who marketed both nationally and internationally and the potential adopter manufacturing and marketing organisations (customers). Trade associations with a role in facilitating the adoption process were also contacted. The method of enquiry in the study was by personal and telephone interviews. The findings from these three different groups seem to suggest that stereotypical views of independent inventors held by potential business adopters coupled

with the often weak marketing communications and interpersonal skills reportedly possessed by independent inventors present very real barriers to the adoption of new ideas by the business community. The paper concludes that small businesses may be better placed to "exploit" ideas from independent inventors by virtue of their simpler organisational structure. Recommendations for the improvement of strategies to facilitate adoption of inventions with commercial potential are made for both types of small businesses (inventors and small business adopters).

1. Perspectives from the literature

Recent writings have emphasised the importance attached to innovation for a country's national well-being and its long term competitiveness. The writings of some authors (Mathur, 1984; Ohmae, 1985; Muelbauer, 1986; Bird and Jelinek, 1988; Mathews and Scott, 1995; Financial Times, 1999) have looked at innovation and its management from the organisational context, while others (Arthur, 1991; Parker, Udell and Blades, 1996; Wardell and Knight, 1996; Hill and McGowan, 1999) have highlighted the inventiveness of individuals as innovators, and their problems in trying to succeed in the business world.

Much new technology, for example, has been driven by smaller innovative firms headed by innovative entrepreneurs with foresight, for instance the leading technological firms residing in Silicon Valley, U.S.A. or Microsoft as a company example that became a new giant of industry. Michael Dell (Dell Computer Corporation), in just over a decade, has built a \$18 billion business from a one man business based on marketing innovation. An imperative in economic survival is that a country should understand and accept that invention makes a positive contribution. It does not always come from incremental improvements which are more commonly associ-

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ated with R&D departments, so commercialising the inventions of independents is an increasing way of life in many companies (Shipman, 1993; Valéry, 1999). For instance NordicTrack has relied on independent inventors for 20 of the 70 products that bear its name (Bylinsky, 1996) and Fisher-Price is turning increasingly to independent specialists with expertise in electronics. Incremental improvements and the depth and freshness of an independent's approach could therefore be regarded as just as important as the investments which companies make in their incremental improvements in the day-to-day work of their organisations.

The focus of economic life has changed in the closing decades of the twentieth century as both governments and organisations adapt their policies to construct leaner and fitter enterprises to face economic challenges. Privatisation of previously nationalised industries in the industrialised Western countries helped to create a fashionable trend in both profit and non-profit sectors, to sub-contract work out to specialised agencies because such organisations could then concentrate on streamlining and running their core businesses whilst selling off unwanted parts. Innovative customer services sub-contracted out beyond a corporation's boundaries, for example, in the gas and electrical supply industries, also helped to foster the concept of the "extended enterprise". In adapting to change in economic and organisational circumstances, entrepreneurs have set up in business to try to fill the void, typically either through the independent inventor's route or working with others in building the small firm.

The Economist (1999a) emphasises the importance of innovation and entrepreneurship:

Think of innovation as "x" in the economic-growth equation – a factor that clearly matters but no-one is quite sure how much . . . innovation accounts for any growth that cannot be explained by increases in capital and labour . . . as more capital is added to the economy, any deceleration in growth is more than offset by the leveraging effects of innovation.

It says much about the instinctive capabilities, drive and resourcefulness of the human race to create value in any form of change, that is one crucial aspect of "innovation" in customer-oriented marketing sense. This value creation can

be seen in the improvements in, for example: social, organisational and governmental contexts; machines and materials; products and services. The list is seemingly endless because the cutting edge of innovation is closely allied to the inventive capabilities of inventors in inventing something that had not been in existence before or in innovating something by creating that added utility.

There are many popular heroes who started up and managed their own businesses – risk takers, innovators and inventors (Blanchflower and Oswald, 1998). Interest in entrepreneurship has become fashionable (Bechard and Toulouse, 1998) with many U.K. universities hosting professorships in Small Business Management and in Entrepreneurship (Armstrong, 1999), including the holding of annual conferences in 1999 such as the ninth Global Entrepreneurship Research Conference in New Orleans and the ninth ENDEC World Conference on International Entrepreneurship in Singapore.

Given the increasing number of studies on innovation and entrepreneurship (Bennis and Nanus, 1985; Caird, 1992; Chell et al., 1991; Coviello and Munro, 1994) is the "popular hero" (or "heroine"), the risk taker, innovator and entrepreneur really any better off? Has the situation improved so that the opportunities for innovation can be taken without risking financial disaster? In this matter it is important that the business culture recognises the importance of nurturing and developing the inventor and the entrepreneur in its pursuit of profitability and growth. Independent inventors certainly should play a useful role in the economic life of a country by feeding the "practitioners of innovation". Despite this there are difficulties, as had been noted in the Financial Times (1999). The difficulties faced by James Dyson in producing and marketing his invention of the bagless vacuum cleaner is an independent inventor's case in point and documented in his autobiography, *Against All Odds* and in the success of the business enterprise he built up (Management Today, 1999).

Since innovation comes in many and varied forms, innovation is often represented as the creation of a better product or service in tangible ways or the creation of value in the mind-set of those who supply, buy, use or consume the product and service. In economic terms individuals or

organisations need to re-allocate their resources from lower to higher areas of productivity and profitability. The expression “Innovate or die” is an apt one (John and Snelson, 1987). In marketing terms the “positioning” factor is crucial as marketers seek to achieve competitive advantage through the development of new functional benefits or symbolic values to create and establish the notion of the superior value of a particular product or service in the “minds of these customers”. These are fundamental and legitimate concerns to organisations who would adopt new prototypes of products from independent inventors for production and marketing, but, as this paper will show, inventors also need to create a better image of themselves with a professionalism in their presentations and a market-oriented approach to increase the adoption rates for their ideas and products. Commercial reality dictates that it is much more to do with the practical and rational search for market opportunities than with the romantic image of pioneers pursuing a dream of vision and independence.

Bender (1992) defined an invention as something devised by human effort that had not existed previously while Johnson (1976) explained innovation as a complex series of activities – inter-linking stages of research, development and managerial decisions – ending with the refinement of a finished product, process or technique which would be accepted in the marketplace. In this paper the discussion about independent inventors is concerned with both the notions of inventions and that of innovations as a process.

Rothwell and Gardiner (1984) pointed out that industrial innovation concerned the technical, production and commercial steps to transform a new idea or invention into a marketable product or process. For an individual to be able to fit his or her ideas for a new invention (new to the world product or an adaptation of a product or service into a coherent form for the marketplace requires that individual to have some innovative capabilities and enterprising flair as well as the energy to progress down this route. This “coherent form” of the invention and the process it goes through has to be: designed and produced through individual effort; with the necessary capital obtained through convincing others to finance such an enterprising effort; produced in a “marketable

form” so that the potential of the effort could be recognised and invested in by a corporation with the resources to mass produce and put on the market for sale. It is therefore, crucial for the success of many such independent inventors’ efforts that there are supportive mechanisms from government and organisations to nurture potential inventors’ efforts in the long-term interest of organisational growth and the national economy.

2. Do international differences in support of inventions and innovations matter?

Kitchell (1997) advanced the view that the technology adoption rate had an important impact on the productivity and international competitiveness of a nation. Many new industries had come into existence in the last ten years and the U.S.A. was a good example counting on half of its economic growth from such industries. Shipman (1993) stated that nearly two-thirds of all successful innovations in the 1980s came from enterprises in the small business sector. This may sound like good news when traditional industries, for instance in coal mining, shipbuilding, textile and steel production are replaced by modern and innovative industries in telecommunications and information technologies, which provide new types of employment and markets to sustain economic growth. However, Valéry (1999) has noted that though R&D budgets are expanding in real terms in organisations, the independent inventor is often without any form of substantial support.

Schumpeter, a radical economist of the twentieth century (Economist, 1999b), advocated the concept of a normal healthy economy as “not one in equilibrium, but one that was constantly being disrupted by technological innovation”. Schumpeter’s view of long business cycles was driven by clusters of industries emerging when a new set of industries came into existence, which was seen as unique in its day. Long booms were introduced with innovations in industries in the:

- first wave 1785–1845 (60 years) with water power, textiles and iron;
- second wave 1845–1900 (55 years) with steam, rail and steel;
- third wave 1900–1950 (50 years) with elec-

tricity, chemicals and the internal-combustion engine;

- fourth wave 1950–1990 (40 years) with petrochemicals, electronics and aviation;
- fifth wave 1990–estimated 2020 (30 years) with digital networks and new media.

It is interesting that as the “waves” progress the life time of the booms are shorter, perhaps contributed to by the fact that there are shorter life cycles of products and the presence of aggressive competitive activity as firms rush to innovate in the new information technology age of the late twentieth century.

Against this background, independent inventors and entrepreneurs wishing to commercialise new ideas have traditionally had to find “irrelevant” jobs for themselves and their spouses or partners to pay their bills, so that they could concentrate on working in their own time and with their own resources on their projects. For anyone to have a business plan to be accepted and backed by a venture-capital firm typically involves U.S. \$250,000 of start-up money, a difficult sum for any struggling inventor to find. A full third of venture capital finds its way to one place, Silicon Valley in the U.S.A., more than any other location in the world (Valéry, 1999). California and Israel, as two leading centres for innovation, have shared characteristics of being aggressively competitive and dynamic, employing bright young people with qualifications, using immigrant labour to keep costs of production low and more prone to taking risks in new ventures.

The Economist (1999c) lamented that:

share options are used far less widely than in California to reward entrepreneurs or entice talent. In Britain it seems, people would rather be comfortable and congenial than gamble all and become filthy rich or possibly broke.

The U.K. Department of Trade and Industry (DTI, 1998) examined the level of R&D expenditure (as a percentage of sales) in the world’s top 300 companies. Denmark (16.3%) and Canada (10.8%) topped the list in R&D spending. Whilst the aggregate is 4.6% there are big differences between countries, with Britain (2.5%) and Italy (2%) exhibiting the lowest investment in R&D. Though the U.K. features well in inventiveness and creativity with 71 Nobel prizes for science and medicine, second only to the much more populous

America, commercial exploitation in the U.K. has lagged behind. Consequently inventors either have to look elsewhere for financial support by having their patented ideas produced by other organisations abroad or carry on the unequal struggle by themselves.

Whilst investment in R&D had increased by 10% year on year for the countries surveyed by the DTI, the increase was only 5% for Italy and 3% for Britain. This compares most unfavourably against increases in Sweden, Denmark, Canada and the U.S.A. which were in the range of 17%–26%. Of course, there may be many explanations for these differences in absolute “support levels”. Differences in history, industry profile, fiscal and tax incentives and, of course, country and corporate cultures.

A House of Lords Select Committee on Science and Technology has reported on some of the problems of innovation in Britain. In 1991, the Committee “regretted that British companies are often slow to take advantage of technology transfer from Research Councils and Higher Education Institutions” and urged them to improve their responsiveness. The Government White Paper “Realising our Potential”, published in May 1993, set out a series of reforms intended to build on the country’s existing strengths in science, engineering and technology. It gave commitment to easier access for small and medium sized enterprises to the innovation support programmes run by the Department of Trade and Industry (DTI).

One strategy for small businesses may therefore be to exploit independent invention. Independent inventors are, by definition, not necessarily tied to an organisation or country. If they are not in a position to develop an idea themselves then they seek others to do this. They seek someone else to adopt their project. With the Internet facilitating communication processes between adopters and inventors, the world becomes a realisable market for all parties. In April 1999, there were over 68,800 pages on “Invention” on the Internet. Small businesses may benefit by looking to such types of entrepreneurship in the short term. However, larger organisations and industrialised countries can also gain as new electronic products and published sources become more accessible to those who can afford them in the better-off sections of their communities.

3. Business experience and objectives for research

Arthur (1991) noted that though patent offices around the world have many applications of descriptions of inventions daily, most do not succeed. Reasons for failure include basic flaws in the knowledge and understanding of inventors, weaknesses in the knowledge of what is in the market and impractical or weak designs. The vast majority of inventions fail to make the market and there are many reasons.

Business experience is important with adopter organisations because both parties know that inventors need to focus on an understanding of what is needed in the market. Credibility of the independent inventor's proposals is supported if there is overall business experience and qualifications, particularly if these were related to the markets for which the invention was targeted. A contrast is provided by Chris Tennant of Philcrew Ventures (U.K.), a quite unusual company which invests in business start-ups:

In the U.S., many inventors deliberately see it as worth their while to spend their first 10 years in a big corporation in order to learn the ground rules – in the U.K., inventors think that is beneath them.

The use of business agents could compensate for business inexperience. A business agent could be crucial to the successful development and marketing of goods, particularly on an international scale. However, whilst the use of business agencies, e.g. Inventors' Greenhouse, which specialise in bringing inventions to the market, may be common for independent inventors in the U.S.A. (there are agencies which specialise in almost every industry classification), it is not common in the U.K. (nor much of the rest of the world to judge by the Internet). One reason for the low rate of acceptance for British inventions in comparison with the U.S.A. and Japan, might be the lack of a system of national laboratories in the U.K. with the corresponding support mechanisms and infrastructure afforded to American inventors. The U.S.A. has an "Inventors' Hall of Fame" where individuals who have made outstanding contributions to Industry are recognised. Japanese innovation gains are synonymous with their productivity gains in the 1980s stemming from their quality circles and efficiency gains in

shortening product development cycles. In the U.S., many companies are teaming independent inventors with product designers and marketers, a method termed concurrent development (Buderi, 1993). This type of positive thinking towards independent inventors is virtually unheard of in the U.K. The Wal-Mart Innovation Network (WIN) is a co-operative experiment designed to help establish an infrastructure for stimulating American innovations. Rather than attempting to stimulate invention, the WIN strategy aims to make it easier for existing ideas and inventions to reach the marketplace. In addition to other resources, WIN draws on the expertise of over 160 volunteer executives, buyers and marketing specialists who provide an assessment of marketability (Udell et al., 1993). This willingness by industry to give help has obvious benefits for the inventor, the industry and ultimately the economic status of the country, not least in also giving confidence with tackling the regulatory and legal obstacles in the U.S.A.

Potentially stereotypical views of inventors include: less team orientation than other colleagues (Bergum, 1975); being innovative but not adaptive (Baggozi and Foxall, 1996); well-educated and from families that encouraged free-thinking, confidence, high tolerance of ambiguity, but weak in terms of marketing and finance (Hisrich, 1985); and 99% male from the Canadian Patent Office (Beauchamp, 1992).

The aims of the study reported here and derived from a previous paper (Nancarrow et al., 1999) is to examine perceptions and evidence of stereotyping by potential business adopters in their relationships with independent inventors. The findings and the purpose of the study in this paper draw conclusions regarding how small businesses (independent inventors and small business adopters) might best work with each other.

The literature research identified the importance of inventions and innovations so the examination of problems in the marketing communications strategies of independent inventors would yield clues to some of the reasons for the lagging behind of U.K. good practice relating to the acceptance of such inventions by potential business adopters. Such an analysis would then form the basis of relevant strategies for both parties. Hence the inventors' business experience, acumen and

credibility needed to be examined. How efficient is their targeting of potential adopters – at both the organisation and decision-making unit levels? How good are inventors' interpersonal skills and communications techniques? How do potential adopters' perceive inventors' understanding of the relevant markets and industries given the inventions in question? How do adopters perceive inventors as people? Is there an inventor stereotype? Are there any "irrational" barriers inventors confront in potential adopter companies. How can inventors improve their chances of adoption?

To summarise, the research objectives were therefore focused on the relationships and the variables in the communication process between inventors and potential adopters; the demands and expectations of the latter; and the identification of best practice for the former in approaching the latter to encourage adoption of their inventions.

4. Research methodology

A sample was drawn from two main populations in the U.K.: the independent inventors and the potential adopters. The independent inventors' sample had to have inventions patented, both accepted and rejected by industry so that inventors' experiences in selling their ideas could be documented. Inventions included various electronic and communication products, household and garden products and entertainment. Some of the inventors had tried to sell their ideas abroad. What seems relevant here is that the independent inventor should have a product which had some merit so that there could be a chance of adoption. The marketing skills of the inventor and the receptivity of the targeted adopter could therefore, be studied. The business adopter sample consisted of companies that manufactured and owned their products. Consistent with the independent inventors' products, this sample was limited to consumer goods, including household appliances, automobiles, leisure equipment and personal care. Companies included those regularly (i.e. more than 6 times per year) approached by independent inventors and to have progressed at least one invention from an independent inventor beyond the initial enquiry in the last five years.

After letters and phone calls soliciting assistance with the study a total of seventeen in-depth

studies and interviews were carried out with seven independent inventors and ten adopter companies (including managing directors, marketing directors and business development directors). While it was recognised that the sample size was small the purposive non-random nature of the sampling methodology meant that inclusion of important individuals and firms for the study could be ascertained. Cross-checking with companies was possible and with other relevant parties for example the: Chartered Institute of Patent Agents; Department of Trade and Industry; Design Council Innovation Service; Institute of Inventors; Institute of Patentees and Inventors; Patent Office; Patent Office Search and Advisory Office.

5. Findings

In-company versus independent invention

Internally generated invention (typically via R&D or its equivalent) already had an element of acceptance in that its objectives or sense of direction had already been approved by the business adopter's management with an allocated budget. The management would normally have an existing or potential market in mind. Furthermore since the company was already in a nexus with the marketplace and perhaps with interested people externally, there was already in operation some element of risk reduction. It is against such an internal scenario that the external offer of innovative schemes or inventions have to do "battle". Independent (external) inventors are "foreigners" or "outsiders" have no benefit of internal risk reduction. The relative disinterest of firms in them as "externals" might be seen in the lack of records kept by the firms of approaches from outside. Given this disinterest among potential adopters, it is clear approaches from independent inventors would need to be carefully planned and executed if consideration of their offerings were to take place. As we shall see this was not often the case.

The loneliness of the long suffering inventors

Research with business adopters in their reaction to external approaches from inventors generally revealed attitudes ranging from "disinterested" to

“objective assessment”. Some companies had procedures for receiving solicitations. However, replies frequently indicated that they had a perception of a heavily product-oriented attitude amongst inventors, with little evidence of preparation in market research about likely market acceptance. While some inventors did indeed have a rational and business approach, the overall impression gained from the interviews was that presentation was poor, with little appreciation of commercial or marketing cultures and commercial procedures. Presentations lacked communication skills both oral and written, such that lower levels of management were hesitant to introduce the applicant to senior levels in their companies. While some companies had a procedure with a nominated interviewer, the overall impression is gained that experienced business personnel had learnt not to devote many resources to the reception of outsiders.

Frequently inventors were referred to the buyers and supply distribution channels of companies. But the personnel of these departments were more accustomed to dealing with existing materials and products. The effective way in was to be in a network and “know somebody”. Ideally this would be a person on the Board of Directors. Alternatively inventors might be channelled to the R&D department or in Product Development. The outcome would be a matter of chance, especially as product development groups are usually constrained by “planned projects”, time scales and budgets. The problem was particularly acute in larger organisations. Sympathetic interest is far from acceptance. Knowing the right people in high places was of great value, but how were external inventors to know which people were in the appropriately high places? That is, whom to contact, where the influence lay, and when to contact. The “measured” extent to which British firms missed out with new products as a result of a lack of receptivity by business adopters and poor communication by inventors is hardly documented in the literature.

One well organised business adopter had a procedure for showing new products to customers i.e. it did some positive research. This enlightened policy was unusual. Some companies had forms that added a disciplined format to application approaches. Receptive companies preferred

approaches from agents who would put up a professional image, but the inventors interviewed saw these services as expensive.

Company managers pointed out that it was crucial for inventors as presenters at arranged meetings to have clear ideas about their product potential and limitations. It was important that the inventors could see the situation from the viewpoint of companies that had to preserve their reputations and husband their resources to their best uses. Companies would normally want whole rights to products. The considerate managers seemed to accept some degree of eccentricity from inventors, but what seemed to be paramount for an acceptable product was an ability to work together, alongside the inventors’ drive and enthusiasm. Furthermore, managers made it clear that they did look for an ability to mesh together with the professional and executive functions of the firm along with technical and operating competence to enable the product to be developed and nurtured on its way to its launch in the marketplace. However, inventors tended to be loners and they therefore did not possess such business discipline, as was painted by the respondents.

Going it alone

For inventors finance was a fundamental question. Most had raised funds themselves by a variety of methods ranging through grants, bank loans, mortgages, insurance policies, savings, redundancy payments etc. Once a cash flow had been established the provision of funds became easier, including that from the Department of Industry and support from the Design Council e.g. Smart Award. However, the first phase of starting up was the most difficult. Money was not externally available for this. What might be available were funds for subsequent development. Most inventors had worked initially without the protection of patents.

Patent costs were prohibitive, especially for international applications. Many inventors had initially wanted the protection of patents. The overall impression was that patent agents offered paperwork with expensive fees. Awareness of support organisations was mixed. Some inventors were not knowledgeable about the U.K.’s Design Council Noticeboard. None of the inventors who were successful in selling their products had used agents

who market inventions to sell their ideas, mainly on the grounds that agency fees were prohibitive in the range of several thousand pounds sterling, and the agencies' desired requisite for the full patent.

Impact of marketing communications

Where inventors had some knowledge of marketing (not sales) the impression gained is of an orderly and systematic approach to the introduction of their inventions to support agencies and potential business adopters. They had a fairly clear idea of whom to target in their communication approaches. There appeared to be two types of approaches, either starting "bottom-up" with contact to a junior who would then act on these contacts and refer to a senior manager to take interest, or "top-down" to find a supportive senior manager who would negotiate for the proposal's inclusion in new plans, budgets etc. The flatter companies, in terms of organisational structure, might, be the easier ones to approach. In small businesses it would obviously be much easier for outsiders to find the key person with whom to deal. Larger organisations, with complex organisational structures, present a major challenge in identifying the true decision-making personnel who also do not have an internal political agenda. The inventors in the research sample were by recruitment criteria relatively successful and seemed much more skilled in their communications, especially if it was not the first time they had gone through the processes of presenting their inventions.

The business adopter perceptions of inventors

was frequently prejudiced by stereotyped impressions of their ethos (see Table I). This strong negative stereotype of business adopters reflected the unacceptable reality. Inventors unsuccessful at contacting or gaining interviews still claimed to feel the "need" for their products in the marketplace, claiming short-sightedness on the clients' part. An average number of approaches from inventors to potential adopters was around three and perseverance usually petered out before the twentieth attempt. The general view was that if the invented product was not accepted by then, it would not be accepted by anyone elsewhere. If marketing communications on the part of inventors were not seen to be professional, prejudices about the personal characteristics and eccentricities of inventors appeared were reinforced. Notwithstanding their feelings about useful time lost, such prejudices were likely to cloud the issue of accepting a relevant invention or giving it the benefit of the doubt.

These aspects have been summarised in terms of "positive and negative attributes" in Table I.

6. Conclusions

There is strong support in the literature that the contributions of inventions and innovations by individuals and organisations play a crucial part in sustaining the development of the economic health of a nation. Given this, why then in the U.K. has the track record of innovation through adoption of independent inventors been so poor? The findings show formidable barriers against the independent inventors which, consciously and unconsciously, business adopters have put up.

TABLE I
Comments about the view of the inventor from business adopters synthesised from research interviews

Positive attributes	Negative attributes
Appearance – conventional attire for interview	Informal and casual attire for interview
Articulate	Likely to be unkempt, bearded
Boffins	Loquacious, Emotive
Business orientation	Nutters
Diplomatic	Lacking business orientation
Receptive to change	Tactless
Reasonable communication skills	Die hard, blinkered, absent minded
Some appreciation of company needs and procedures	Poor communication skills
Some marketing research	No appreciation of company needs and procedures
	Little or no marketing research

Understanding the particular difficulties which inventors face would be a starting point. As small businesses, often working alone or with a partner, they need supportive mechanisms that government agencies should provide. For example the U.K. Government's *Business Links* programmes include sophisticated "Client Information Systems" with a wealth of data about small firms and professionally produced material. It is suggested here, as the views of the inventors have indicated that they need practical help in the production of their communications with potential business adopters and assistance in locating and applying for financial assistance. Many and varied decisions have to be taken, such as: the investment of equipment and facilities; market research; orders and purchases with suppliers; grant applications, obtaining specialist knowledge to help with the requirements for design, production, distribution channels and marketing. Both government and organisations need to do more to foster the growth of a supportive environment to eradicate discrimination against individuals, because they work alone.

Good communication strategies for independent inventors include the need to do adequate research with the desired potential adopter at an early stage. There is much that could be done at the outset. Basic research involves the gathering of information and the practice of trying out ideas with other firms before approaching potential business adopters. Any information about such a company with regard to its products, services, markets and suppliers needs to be gleaned to look for points of interest shared by or regarded as important to business adopters. For instance, the identification and the soliciting of help from a potential "product champion", either from within the company or external to it, whom the adopters would listen to, would help to "open doors". Independent inventors need to establish their credibility at the outset with potential business adopters, citing any qualifications, work contacts, experiences of having sold products in relation to the markets in question or names of companies that could be identified as being "clients". Being able to talk in realistic terms with regard to the practicalities of design and production so that the prototype could be visualised in a conceptual and marketable form would be of benefit. The confidence of potential business adopters needs to be built so it is impor-

tant to show some knowledge of their companies and their competitors' products. Much information can be gained from company accounts and brochures. The claim of being an "inventor" does not seem to be beneficial given the poor image that negative stereotyping produced. Some consideration needs to be given about how to deal with the problem of stereotyping (see Stafford et al., 1995). When granted interviews with potential adopters, presentations need to be rehearsed and professionally delivered.

Both independent inventors and small businesses share characteristics which neither side had recognised: the hardships, motivations and joys of being in business; the conflicting pressures of taking decisions with the responsibilities of the workplace; intensity of involvement to the extent of having less time for family life and less time for socialisation with others due to work commitments.

Set in the context of the review of the literature and what has been happening in the world economy it is also important to give a flavour of why we think it's imperative that businesses should develop a better understanding of how they manage the processes of innovations and their relationships with independent inventors in a more conciliatory and effective manner to develop a source of fertile inspiration of product knowledge and ideas. Small businesses are perhaps in a better position to handle "cold call enquiries" from independent inventors than is the case with larger organisations as their organisational structures are simpler. This makes it easier to appoint a person responsible to handle such enquiries and easier for prospective inventors to find the right person with whom to deal. However, small businesses might consider a more proactive stance, publicising their interest in new products or processes through appropriate media as well as trawling the Internet on a regular basis. We have noted the volume of activity on the Web with regard to innovation and invention. However, small businesses need to consider how to deal with inventors in an efficient manner, that is, assuming they wish to adopt an idea what would need to be resourced and how. The expertise needed here may also be outsourcing given the recent significant changes in markets and labour forces.

When traditional markets declined in the 1970s

with economic recession in Western industrialised countries, the effects led to the closure of many firms e.g. in the manufacturing sector, where they were no longer able to compete. The 1980s saw the emergence of “downsizing” as a fashionable way in which companies got rid of staff with old skills in their efforts to be “leaner” and to develop the training of new skills for the remaining few to become “fitter”. The new phenomenon in the 1990s (Lester Thurow, UK Radio 4, 7/9/99) in the U.S.A., Britain and other industrialised countries, is that large corporations are still getting rid of staff when they are “successful” even though these are staff they have nurtured and trained, in the further interest of downsizing! Advocates of downsizing point to reasons such as: allowing these firms to have greater flexibility in the making of strategic decisions, direction of strategic effort and the ability to switch to new markets. In the final analysis managers in large companies involved in the adoption process are not immune themselves to the effects of such apparent short-termism. They too might find themselves having to manage as independent entrepreneurs of the future. They may be a fruitful resource to which small businesses may turn in order to drive innovation within their organisations.

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