

Virtual Supplier Diversity: The Business-to-Business implications of  
low-tech Entrepreneurial Ethnic Minority Businesses in a virtual  
environment

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## **Abstract**

The evidence of limited ICT adoption and use among Ethnic Minority Businesses is growing, supported by the work of Ram and Smallbone (1999), Foley and Ram (2002) and SBS (2004). The reasons discussed are many including firm size, lack of skills, culture, markets and sectors (SBS, 2004 and Allinson et al, 2004). However, existing examinations of ICT adoption and use by EMBs have failed to consider business-to-business (B2B) activities especially by firms in sectors where B2B activities are rapidly developing and increasingly the norm. Given, the increasing economic impact of EMBs in the UK and the growing push towards international trade the paper identifies the factors that both aid and limit B2B development among EMBs and potential International partners. The focus of B2B development is the UK's first Virtual Trade Fair bringing UK EMBs, US EMBs and US Corporates together virtually. The paper identifies a number of factors creating and limiting B2B development and the formation of any international strategic alliances including: limited ICT use; limited understanding and use of virtual trade fair technologies, operating sectors and markets. The recommendations to overcome such issues include greater inclusion of EMBs in UK government backed e-procurement programmes, improved matching of sectors between buyers and sellers and raised ICT awareness and adoption in the EMB community.

## **Introduction**

Until a few years ago, research examining the relationship between Ethnic Minority Businesses (EMBs), Information Communication Technologies (ICT) and Business-to-Business (B2B) activities was very rare. The first study to consider any issues surrounding ICT and related technological adoption was signalled by Ram and Smallbone (1999) with later research undertaken by Foley and Ram (2002) and more recent Small Business Service (2004) data identified a lower ICT adoption rate than in the non-EMB population.

The ICT literature offers many reasons why adoption may be more difficult for small and especially micro-businesses given their shortage of resources (Premkumar & Roberts, 1999) and lack of capacity to view ICT strategically (Levy *et al*, 2001). However, in relation to EMBs, Owen *et al* (2000) underscore the impact of the changing demographic profile and entrepreneurial potential of ethnic minority groups on the future economic development. Given that their growth potential is closely related to their ability to breakout of traditional sectors of low value added activity (Ram and Jones, 1998), diversification and market development through exporting and international trade are activities which are highly favourable. Such developments require and support increasing technological use and therefore ICT. This is most pertinent given the drive by leading US corporations who are expanding their supplier diversity strategies globally. Although the possible explanations for the discrepancy are not as conclusive, the emphasis, at least in policy circles, is turning to measures to improve the uptake of ICT and use of ICT in B2B processes.

The paper therefore focuses on entrepreneurial EMB owners that have diversified and are, if not already, trading outside the UK. Qualitative and quantitative data was gathered from the thirty-six UK EMBs as well as US EMBs involved in a United Kingdom Trade and Investment (UKTI) funded project. The objective was to foster Ethnic Minority Business (EMB) development through transatlantic strategic alliances utilising virtual technology namely a Virtual Trade Fair (VTF). All the EMBs are SMEs, have low ICT use and low technological adoption. The Virtual Trade Fair 2005 was the first to be held officially in the UK.

The paper examines and provides details on the activities, issues, benefits and learning outcomes derived from UK EMBs engaging in a particular electronic 'functional hub' (Ho *et al*, 2002) namely a Virtual Trade Fair. Furthermore the findings provide recommendations and policy implications focused around the following themes: EMB ICT adoption; the development of international supplier relationships through a virtual environment; developing hi-tech ICT awareness provision such as e-procurement.

### **Ethnic Minority Businesses & International Trade**

The role of EMBs has been amplified throughout industrial societies. Owen *et al* (2000) highlight the growing importance of the ethnic presence in Britain and the value in relation to future economic development. EMBs constitute almost 10 per cent of the UK small business stock, while certain areas exhibit much higher proportions. In addition, the purchasing power of ethnic minority groups is markedly increasing. Undeniably, this has significant socio-economic implications for the UK as a whole and for the regions exhibiting a strong ethnic presence.

It is noteworthy that EMBs, beyond fulfilling a significant economic and social role for the minority communities themselves, have contributed to the revival of the small-firm stock, the transformation of particular economic sectors and the regeneration of depressed inner-city areas (Ram and Barrett, 2000), and by implication they certainly contribute to the achievement of macro-economic and social objectives at a broad level (Deakins and Freel, 2003).

Broadly, international trade is vital to the UK economy, as it enhances competitiveness, growth and prosperity. Success in overseas markets helps the UK economy expand and ameliorates the balance of payments. As EMBs constitute an integral and undoubtedly dynamic element of the British economy, improving their ability to engage in exporting would appear to be worthwhile. Given that their growth potential is closely related to their ability to breakout of traditional sectors of low value added activity (Ram and Jones, 1998), diversification and market development through exporting and international trade are activities highly favorable from a business support provision and policy making perspective.

### **EMBs and Information Communication Technology**

Exporting and International Trade is increasingly utilising and standardising Information Communication Technologies (ICT). Limited but increasing research into Ethnic Minority Businesses (EMBs) and their adoption and use of ICT suggests that exporting and international trade from a B2B perspective is likely to be very limited. The adoption of ICT includes the use and purchase of computer hardware, software, data and communications technology. For the purposes of this paper ICT, is defined as 'any technology used to support information gathering, processing, distribution and use' (Beynon-Davies, 2004: 7-8). Ram and Smallbone (1999) found 15% of a sample of some 1800 firms comprised EMBs were significantly less likely to be users of ICT than white owned firms. Only 64% of EMBs used ICT for some purpose compared with 89% of white owned firms. Moreover, the lower level of computer use by EMBs could not be explained by their smaller average size. For example, 82% of white owned micro enterprises were using computers for some purpose compared with just 54% of EMBs in this size group (Ram and Smallbone 1999:16).

Foley and Ram's (2002) findings identified a lower adoption rate than in the non-EMB population. The adoption level differed significantly with only 37% of micro EMBs having Internet access compared to 75% of micro non-EMBs. Further, findings showed significantly

lower rates for business website development and the use of online technologies to transform business operations such as invoicing, online ordering and payment. The Small Business Service (SBS) survey (2004) noted a smaller disparity with 65.8% of micro EMBs now using ICT. Hence, the gap between ICT take-up in non-EMBs and EMBs would appear to be closing; but this apparent change must be viewed with some caution. ICT use by EMBs tended to be orientated to lower level functions i.e. PC use for word processing or accounts and email. A significant finding of the SBS (2004) survey was the differences between ethnic minority groups. African-Caribbean businesses adoption rates were comparable to their non-EMB counterparts; but Chinese business owners, at 32.9%, were the least likely to use ICT. Pakistanis and Bangladeshis EMBs had a higher rate of use at 57%. In relation to website adoption EMBs were in low single figures (Chinese – 3.4%, Pakistani – 3.5% and Bangladeshi – 5.4%) compared to over 22% of non-EMBs.

The possible explanations for the disparity appear to include size, sector and generation of business owner. Although the absence of comprehensive, large-scale business databases that include an ethnic variable makes it impossible to paint a totally accurate picture, it is widely accepted that most EMBs are not just small, but very small firms (Ram and Smallbone, 2002). Hence they are likely to suffer from a lack of capacity to view ICT strategically (Levy *et al*, 2001) and limited resources (Premkumar and Roberts, 1999). However, Ram and Smallbone (1999) note that firm size is in itself unlikely to explain the discrepancy. The possibility of the disparity being sector related was highlighted by Allinson *et al* (2004) who noted a tendency for EMBs to cluster in particular sectors and advanced this as an explanatory factor on the basis of their evidence collected from focus groups with EMBs. Allinson *et al* (2004) also suggest that second generation business owners are more likely to be receptive to ICT than their first generation counterparts; recent surveys of EMBs support this observation (CEEDR, 2001; Ram *et al*, 2003).

Although the ICT gap is closing, it is clear that EMBs continue to be less likely to utilise ICT than their non-EMB counterparts. Evidence is also extremely limited regarding the use of ICT in B2B activities among EMBs. The rates of B2B activity highlighted in the SBS (2004) survey go even further to suggest such activity, is limited if not rare. Although it should be noted that rates of B2B activity in non-EMB businesses is only very slightly higher with 4% of EMBs procuring electronically compared to 6.6% of non-EMBs (SBS, 2004: 2).

### **Business-to-Business and The Virtual Trade Fair**

It has been argued that business-to-business (B2B) ecommerce is even more critical to economies than business-to-consumer (B2C) ecommerce (Cunningham, 2002). Along with figures suggesting that B2B ecommerce is potentially ten times the value of B2C (Beynon-Davies, 2004: 325) then ICT innovations in this area have great potential for businesses. B2B activity is well defined with Cunningham (2002) providing a clear ICT related definition that highlights the use of public or private networks, including public and private transactions that use the Internet as a delivery vehicle for business transactions. Transactions may include financial transfers, on-line exchanges, auctions, delivery of products and services, supply-chain activities and integrated business networks (Cunningham, 2002). It is the supply chain development that is viewed as critical to this paper in the B2B context.

The literature (Beynon-Davies, 2004; Chaffey, 2003 among others) identifies a number of distinct models relating to suppliers, buyers, intermediaries or partnerships each is summarized in table 1. Each model requires supply chain activities to be developed through varying ICT based technologies.

**Table 1: Summary of B2B Models (adapted from Beynon-Davies, 2004: 330)**

B2B Model	Characteristics
Supplier-orientated	Involves one supplier and many potential buyers Often involves use of e-shop or online catalogue
Buyer-orientated	Involves one buyer and many potential suppliers Often involves e-tendering, bidding and e-procurement
Intermediary-orientated	Involves many suppliers and many buyers e-marketplaces are a common element in the process
Partnership-orientated	Involves one buyer and one supplier A relationship that develops through integration of information systems most using Extranets

The benefits of such activities are well documented (Chaffey, 2003; Turban, 2004 and Willcocks *et al* 2000) and include lowering purchasing costs, reducing inventory, lowering cycle times (time to market), efficiency improvements (resource savings and efficacy improvements e.g. better information and relationships) As stated by Ho *et al* (2002: 425) ‘The advancement and deployment of information technology (IT), in particular the Internet and Web-based technology, has transformed conventional way of conducting business.’

New business models in digital markets include auctions, aggregators, bid systems, and exchanges (Ho *et al*, 2002). Forrester Research estimated that by 2004, digital markets will capture 53% of all online business trade and by 2006/7 will account for €2.2 Trillions worth of business transactions across Europe. Fostering such trade has resulted in the development of ‘functional hubs’ (Dou and Chou, 2002) that support the identified business models and make full use of the potential of ICT. The focus of this paper is on one particular functional hub ‘The Virtual Trade Fair’. The VTF is well developed in the United States as an Intermediary-orientated business-to-business model. Rounds (2002:1) provides one definition ‘An entire convention centre full of people, products, and informational materials made available to participants via their computers and the web.’ However, this definition is based on a very traditional view of trade shows. It does not capture the ‘virtualness’ of the experience, the need for potentially high levels of information to be transacted or the fact that attendees are from targeted groups. Further, it fails to appreciate that the virtual environment offers many more ways to communicate and interact live than in the traditional trade show environment. The ability to communicate will be fostered by the availability of advanced technologies such as audio messaging and video conferencing, rather than the tried and tested Information Communication Technology (ICT) activities such as email, chat forums and electronic business cards.

Virtual Trade Fairs have not been developed to remove the need for traditional trade shows. US research relating to VTFs highlights the case that not all attendees are comfortable or wish to do business exclusively through a virtual environment, ‘Many people still like to travel, mingle with other real people who have the same needs and interests, play touchy-feely with the products, and speak face to face with the vendors.’ Rounds (2002: 2)

However, the advantages are well documented including: no need to travel, no need to leave office or desk, potentially more focused activity by both exhibitors and attendees, can support business relationship development through B2B intermediaries, flexibility in terms of show length, cheaper than conventional trade shows. These advantages offer varying degrees of tangible benefits. Lower costs are certainly a tangible outcome however there is no guarantee that business relationships will develop. It is clear that whether in a virtual or non-virtual

environment developing trade through a show, at the very least, requires communication, understanding and knowledge and a product or service the attending buyers wish to negotiate over.

**Research Methodology**

In line with UK Trade & Investment's objective to foster Ethnic Minority Business (EMB) development through transatlantic strategic alliances, the Virtual Trade Fair (VTF) project aimed to facilitate this activity through the use of virtual technologies. The VTF provided a substantial virtual floor space to thirty-six growth-oriented ethnic minority businesses in an exclusive UK pavilion at the 5th Supplier Diversity Virtual Trade Show held in 2005.

With approximately 5% of the total population of 4.15 million in the East Midlands being from an ethnic minority group and this figure being the third highest for any region in England unsurprisingly a relatively high proportion of the thirty-six EMBs were from the East Midlands region of the United Kingdom (see Table 2). There were also EMBs based in the West Midlands, Bradford and London.

**Table 2: Participant UK EMBs by Region**

<b>Region</b>	<b>% of participant UK EMB</b>
East Midlands	62%
West Midlands	15%
South East	20%
South West	3%

A number of reasons led to this feature of the study. The thirty-six EMBs represented twenty-two business sectors/markets ranging from Financial, Information Technology and Management Consultancy to Food and Catering, Waste Management and Packaging. EMBs in the Information Technology sector represented 11% of all the businesses, with design and printing, consultancy and recruitment a close second, third and fourth. Marketing & Media, Recruitment and Software Management made up a significant proportion of the rest at 20% of the total. In terms of firm size the thirty-six EMBs fall into the following categories: 58% were micro firms (0-9 employees); 33% were small firms (10-49 employees); and 9% were medium small firms (50-249 employees).

Data gathering utilised both quantitative and qualitative methods. Such a ‘multi-method’ approach is particularly helpful in understanding how policies achieve their effects (Sanderson, 2002) and how the VTF fosters business relationships. Three data gathering exercises were used and included: feedback, questionnaires and online interviews. These approaches focused on initial involvement and expectations, the 30 days of the Virtual Trade Fair including activities, issues and initial engagement and a reflection on the activity and the outcomes resulting from involvement.

All thirty-six businesses from the UK were asked to complete a feedback form (questionnaire) related to Virtual Trade Fair. This data was primarily quantitative and informs from both sides of the Atlantic, their feelings, attitudes and opinions about the experience and outcomes. Potentially quantitative data gathering responses can be low (Saunders *et al.*, 2002) including formal feedback responses. Therefore, a further questionnaire was provided to all UK based EMBs that set-up a booth. This was for two reasons: first to reduce potential problems regarding the response rate and secondly and more importantly to gather further quantifiable data. Data included: previous virtual business activities; use of the virtual trade

fair; how leads were developed; opportunities identified; and details regarding the type of relationship that was developing (customer – supplier – B2B).

Qualitative data was also gathered from the thirty-six UK EMBs, as well as, US EMBs and US Corporate Buyers who were approached online through the live chat forum and interviewed online. This was important given the need to understand the relationships developed but also to identify issues that limited the US EMBs developing relationships with UK EMBs through the virtual environment. The qualitative data gathering utilised semi-structured interviews conducted within the live chat room. Therefore the technology itself was utilised to undertake the research and gather data.

**ICT Use By Ethnic Minority Businesses (EMBs)**

Given the low-level adoption and use of ICT by UK EMB businesses (Ram *et al*, 2003; SBS, 2004) we would expect the same to be true of those exhibiting at the VTF. The following findings and discussion revolves around the ICT activities of these EMBs and considers its impact on virtual trade show involvement and use.

Of those using email over 80% engage through this technology with both customers and suppliers. This suggests an ability to communicate with key stakeholders through electronic means. The responses from the EMBs provide a number of reasons for why they adopted email within their businesses processes. The reasons focused on costs and business process benefits. 78% used email and limited IT/IS to reduce costs and also viewed the technology as a better way to collaborate with suppliers. All 100% viewed IT generally as vital to business process efficiencies

The low level Intranet use (see Table 3) also supports a lack of integration of Information Technology (IT) and Information systems (IS). This was not surprising given 91% of UK EMBs were small or micro firms (Levy and Powell, 2003) supporting Ram *et al's* (2003) findings regarding low level ICT adoption by UK EMBs especially in relation to integrated IT and IS operations. However, remarkable use of IT as a communication tool rather than a business process tool showed progress from Ram *et al* (2003) findings.

Significantly the low ICT use is evident for e-commerce and e-procurement. This is potentially significant given the potential for greater e-commerce activity through the medium of the VTF. Only 7% of businesses had ever engaged in e-commerce and 14% in e-procurement activities. However, B2B invoicing (with suppliers) was utilised by 57.1% of EMBs. The low e-procurement figure suggests that the much higher electronic invoicing figure was based on email invoicing and is not part of an integrated e-procurement system.

**Table 3: Summary of ICT Use by UK EMBs Prior to VTF**

ICT Use	% of UK EMBs
Email	93%
Internet	93%
Intranet	21.4%
e-Commerce enabled	7%
Engage in e-procurement	14%
Electronic Invoicing	57.1%

Businesses were also asked about exposure and prior use of other ICT tools. Exposure included audio, video conferencing and message/bulletin boards. These were examined given their significance regarding interaction within the VTF. Not one of the UK EMBs had

previous exposure or experience with the use of audio/video conferencing or message/bulletin boards. Therefore, low uptake of more innovative ICT offerings during the VTF was evidenced generally, with an exception of high usage by EMBs in IT sector.

The benchmarked data raises a number of themes and issues. Firstly the largest population of businesses were represented by sectors predominantly in the areas of IT, Media, Marketing and EMBs offering consultancy services. This factor begins to explain the higher use of email and the Internet, by UK EMBs, for business purposes relative to the national perspective. These sectors are high users of ICT compared to almost any other (Levy and Powell, 2003). However, the use of higher-level innovative ICT tools was very limited and where used it was primarily among IT sector EMBs.

### Drivers For Engagement

Exhibiting EMBs were asked about prior involvement in trade shows implicitly avoiding involvement in Virtual Trade Fairs as this EMB virtual trade fair is the first outside of the United States. Over 70% of UK EMBs had been involved in traditional trade shows/fairs previously with 70% of them making use of them to market products and services. Therefore, over 70% were pre-disposed to the possibility of a virtual trade fair.

**Table 4: Drivers for Participation**

Drivers for Participation	% of UK EMBs	Drivers for Participation	% of UK EMBs
Identify new Customers	7%	To communicate with potential suppliers and customers	42.90%
To purchase from others	7.10%	Research new markets	50%
To solve business problems	7.10%	No need to travel	57.10%
Identify new Suppliers	14.30%	No time away from the office	57.10%
Subsidised rates	22%	Examine potential of VTF	93%
To engage with other EMBs	28.60%		

The initial data on the drivers to participate provided a low response to communicating with potential customers and/or suppliers. However, the Virtual Trade Fair was viewed by 93% of the UK EMBs as an opportunity to examine the potential of such B2B virtual environments (see Table 4). The opportunity to explore/research new markets was viewed as important by 50% of the businesses. The reasons given by EMBs for taking part start to offer a picture of goals that some of them may have during their engagement within the VTF.

**Table 5: Set Goals For Attending**

Summary of Set Goals For Attending VTF for exhibiting EMBs	% of UK EMBs
To obtain at least one customer lead	78.6%
To try out the technology for the future	14.3%
To engage with US based businesses	21.4%

When EMBs were asked to consider their objectives or goals for attending the picture begins to change (see Table 5). Important was the high response to obtaining at least one customer lead. All aimed to generate new business whilst networking with existing suppliers was only an objective of 40% of those that had previously attended a trade show/fair. However just under 20% actually set a goal to engage with US based businesses. These views presents a somewhat contradictory picture with regards to drivers to participation, though 78.6% of UK EMBs intended to generate at least one customer lead only 7% were prepared to identify new

customers. This may be due lack of experience in exhibiting in VTF and exposure to e-business.

Involvement in the virtual trade fair was mainly driven by exploratory interest to try something very new and utilise the opportunity to test the new innovative technology. Although the main driver to engage was not to develop business relationships, it was evident that when they considered possible objectives related to their involvement that obtaining a customer lead was a prime aim.

### **Setting Up The Virtual Environment: The EMB Perspective**

The VTF is a novel business development platform that almost no EMBs had exposure to across the UK. The relatively limited awareness and knowledge of ICT meant that support was likely to be required to assist EMBs in deploying an online booth. All UK EMBs were offered onsite and online support to set-up their virtual booths in advance. However with almost 60% of the UK EMBs being micro business the IT support officer of the VTF struggled to get their appointments and hence some exhibiting EMBs struggled to set-up their booths on the inaugural day of the VTF. Though eventually all booths were setup for the three day exhibition.

Booths were placed in particular participant categories chosen on the basis of the business sectors agreed and identified before the VTF. Discussions between the VTF team and the UK EMBs developed specific categories appropriate to all in the same sector or appropriate to a particular set of businesses within a sector. Hence, a US buyer entering the UK Hall and then entering the Graphic Design participant category would have only found one UK EMB; the others, from a similar business sector, were found in the Marketing and Communication participant category. The US Virtual Trade Hall adopted an identical approach to participant categories. It should be noted that the US Virtual Trade Hall had a larger number of participants across a wider set of participant categories.

All the booths in the UK Hall of the VTF had the same tools available for use (i.e. bulletin board, drop a card, pickup a card, website, e-mail, chat, corporate description, press release, literature, video, presentations) at their discretion. Given the data regarding current ICT use and the limited knowledge of VTFs the UK EMBs were most comfortable with the use of email and digital business cards.

The evidence from the first VTF in the UK highlights the requirement for training and support to setup the booths for EMB exhibitors. It should be noted that even though it is fairly simple to setup a booth as it is all automated, business owners have limited time and in many cases know-how which have always been a major reasons for a lack of adoption of ICT (Poon and Swatman, 2000; Levy *et al*, 2001)

### **Technology Used During The VTF**

The objectives of the technologies used were all centered on initiating business relationships. Broad ranges of technologies were available to initiate the communication process from email, live chat forum, bulletin boards. Email was viewed as the most useful by almost 60% of UK EMBs.

The live chat forums were used sparingly in the initiation of a business relationship. There was marginal uptake of live chat forums by UK EMBs as a business communication tool. It should be noted that during the first few days of the virtual trade fair 30% of UK EMBs had

difficulties in using the live chat forums and the online windows would disconnect during discussions. Many businesses therefore chose not to continue using them during the live event. UK EMBs did use electronic business cards frequently and with positive results. When used they were predominantly utilised due to requests from US EMBs and led to UK EMBs asking US EMBs to make use of the phone. Such activity leads to greater communication expense negating the cost savings of online transatlantic communication.

Audio messages and video conferencing were not used to initiate relationships or foster its continued development. With none of the UK EMBs having used such technologies before and a lack of knowledge or training to use them in virtual environments means this is unsurprising.

**Table 6: Business Communication amongst Exhibitors and visitors at VTF**

Communicators	Transactions
UK Participant EMBs	36
Participant Category Communication	65
Number of Cards Exchanged by UK Participant EMBs	140
Number of Cards Dropped by US EMBs with UK EMBs	156
Total Virtual Business Card transaction between UK EMBs and US EMBs/Corporate Visitors	733

Table 6 summarises the virtual business communications that occurred amongst the exhibitors. In total the thirty-six UK EMBs engaged in 733 electronic business card transactions with exhibitors and visitors (suppliers-buyers-EMB 2 EMB). Of those 733 electronic business card transactions UK EMBs initiated 140. The UK EMB exhibitors actually received 156 electronic business cards from US exhibitors. Between UK EMBs communications were low with only 65 communications made between UK EMBs. Hence, almost 2.5 times as many communications were made between US EMBs and UK EMBs than between UK EMBs. The highest exchange rate, related to a UK EMB in the recruitment sector who received and responded to 10 electronic business cards during the active 3 days of the virtual trade show. The following quotes provide just a few of the examples given by UK EMBs of US EMB communication:

*UK EMB: 'I sent a card to Kodak and the Diversity manager has sent a mail to his counterpart in the UK... I have got a few companies from UK and US dropping business card and getting in touch with me.... Its great!'*

*Another UK EMB: 'I got a business card dropped by KODAK USA and also had a live chat with their senior buyer'*

### **Generating Leads: Evidence From EMBs**

At this early stage of data gathering process the expectation was that very few, if any, leads would be gained from the VTF. However, there was evidence that UK EMBs were communicating with businesses and that 7.1% of UK EMBs had actually developed leads, which they suggested were leading to a business relationship. At least 28.6% of UK EMBs had engaged in some early online discussions with the objective of developing a business relationship. The actual relationships, in terms of suppliers or customers, broke down to 14.3% customer (buy-side) relationships and 14.3% supplier (sell-side) relationships supporting the first two B2B models identified in table 1 (Beynon-Davies, 2004). US EMBs

initiated 66% of engagements and 34% by the UK EMBs themselves. Table 7 summarises the ICT technologies used to initiate relationships at VTF:

**Table 7: Summary of ICT Used To Initiate Relationship**

Communication Methods	% usage by UK EMBs
Email	14.30%
Digital Business Card	7.10%
Drop Card	7.10%

When live chat forums were used, communication focussed on sharing information about business activities, locations and client profiles. Though some of the businesses were observed to fix chat appointments through exchanging virtual cards in order to formalise the business discussions and follow up business leads. It was also observed in the chat forums, though not commonly used, that businesses were not only talking about each other’s business but were also promoting other exhibiting businesses at the VTF based on their communications.

One such case of live chat forum use was a design and print UK EMB, who was dropped a business card along with a request for an interview by a design company in Philadelphia (US EMB). The initial communication related to an interest in discussing their operations and seeing elements of their work. The relationship developed further via email and then turned to more advanced technologies especially live chat forums. The US EMB wished to explore possibilities related to a business partnership with the UK firm in an attempt to supply their global clients with a presence in the UK. Any development of the partnership arrangement required the maintenance of quality and focus with the UK EMB providing market knowledge. The UK EMB design company was following up on the lead and continued to communicate with the US EMB. As the owner stated:

*‘it’s really amazing that some one sitting across the Atlantic talking about partnering with us..... I think its only possible through technology and Internet.’*

Of the initiated business relationships 7.1% continued online beyond the closing date of the VTF. The developing relationships were ongoing through e-commerce and e-procurement technologies. The specific objective was to move forward in a B2B context. The B2B activities were all between UK EMBs and US EMBs and not UK EMBs only.

The expectation was that further relationships could develop based on responses from US EMBs. It was evident that the VTF organisers promoted the UK pavilion aggressively creating awareness and interest in UK EMBs. Corporate buyers responses as quoted below supported this:

*“ I visited the show yesterday and found some interesting companies. I even left a message on the chat line for one company in the UK. I saw a few that my company could use in different states. I’ll forward the information to the Enterprise Buyers and remind them to visit the tradeshow during the ‘live-days’.”  
(US Corporation)*

*‘ I am personally looking forward to visiting every booth at the UK pavilion and ask my buying team in US and UK to shortlist a few businesses- in fact, I am at this moment visiting one of the UK environmental and waste management companies and*

*have dropped a business card- please ask them to contact me or any of my staff for further discussion.....' (US Corporation)*

### **Limited Business Leads: The EMB Perspective**

The figures for initiated relationships, previously discussed, are even more significant given the response to the question 'were you able to find and engage with potentially valuable businesses?' which drew a positive response from only 41.7% of UK EMBs. The reasons given as to why nearly 60% were unable to find and engage with businesses were as below:

- Difficulties in finding relevant businesses (50%)
- No relevant businesses at all (16.7%)
- Lack of face-to-face communication (50%)
- Time difference between UK and US (16.7%).

The difficulties in identifying relevant businesses are vital as they impact on the development of business relationships and the amount of opportunities created. The difficulties relate to a lack of time to search in detail and an unclear understanding of participant categories in the UK and US pavilion, so in the first instance attendees were unsure of who they may be dealing with and in the second if they were wasting their time. The broad range of sectors was suggested to be an issue as one of the UK EMBs in the food sector stated

*'We tend to be looking for businesses that are in the same sector or market as ourselves. We believe this ensures that any relationship starts off on a surer footing.'*

This may be a reason for low evidence from UK EMBs with regards to developing business relations and could have lead to low UK specific B2B activities. Ho *et al* (2003) in their examinations of virtual markets highlight the need for strategic fit that, they argue is best achieved by businesses in the same markets or sectors.

Different time zones may have also affected interaction between exhibitors and visitors influencing the propensity of developing business relations. The VTF was set up to go live each day from 12pm (9am US) to facilitate dialogue between UK and US businesses with convenience of time. However, responses from UK EMBs online during the show highlighted issues relating to non-availability of US EMBs possibly limiting their ability to find and engage with relevant businesses. There was limited activity by UK EMB exhibitors after 4pm according to normal business hours in UK leaving them with a time window of just 4 hours. The participants thus narrowed the window of opportunity. This provides causal evidence for low uptake of live chat forums limiting the opportunities to foster business relationships.

Finally, the lack of face-to-face communication was raised as a limiting factor in engagement with 50% of respondents identifying this as a factor in reducing their opportunities of interaction. This provides evidence for UK EMBs being less equipped and knowledgeable to utilise live chat forums, audio messages and video conferencing, supporting the view of Rounds (2002) that such virtual environments are not for all. However, none of the UK EMBs identified the lack of face-to-face interaction as a reason to not attend future virtual trade fairs. Therefore the data appears to support the argument that the ICT technology could have provided a solution for face-to-face discussions given the access to equipment and know-how. These findings along with data on EMB exposure and experience to use such technology suggest a need for improvement on the awareness, training, availability and use of the tool. The technology is well used in the US.

The developing relationships were orientated equally around both supply-side and buy-side B2B creating opportunities for EMBs to engage in future e-procurement activities. There was a concern that many potential relationships may not develop due to the low awareness (34% of UK EMBs) and adoption (14% of UK EMBs) of basic e-procurement technologies including involvement in e-marketplaces.

### **Conclusion and Recommendations**

Being the first ever UK virtual trade fair and given the identified low propensity of EMBs to adopt and make use of ICT the expectations for any potential B2B activity was very low. Evidence from the gathered data showed only a small number of UK EMBs initiated and engaged in a business relationship. However, there was promising evidence of B2B interactions at VTF creating new opportunities. These were significant given the limited use of all the tools at their disposal along with e-procurement awareness proving low. The latter being highly significant given UK government policy to move to and engage in e-procurement at the public level as well stimulating private development. Policy deliverers need to be ensuring that EMBs are not ignored as e-procurement initiatives spread across the UK. Promotion of regional e-marketplaces would be an important entry point. The responses from the US and UK exhibitors about limiting factors for interaction suggested that much could be done to overcome limitations of access to equipment and know-how and foster business opportunities providing policy and training support to overcome:

- Low level use of innovative ICT tools by UK EMBs
- Low uptake of E-procurement awareness and activity
- Low awareness and usage of virtual trade technology
- Low internal B2B activities among UK EMBs.

The reality was that, not all UK EMBs found the Virtual Trade Show useful or valuable however at least 7% engaged in a business relationship and another 21% were involved in early discussions that could lead onto formal business relationships in the future. Positive benefits were also identified one UK EMB owner stated

*'I found the VTF very successful - in fact I had two PCs running at one time... one with the live chat room while I did my routine work on another.. its really very cost effective and less time consuming.'*

A number of issues impacted on initial engagement activities both for UK EMBs and US EMBs. For the UK EMBs it was a significant learning experience that, in conjunction with their limited knowledge of ICT communication technologies, limited their activities. Given the economic significance of EMBs (Deakins and Freel, 2003) and as a total of all businesses are relatively small in number it is important that Virtual Trade Fairs represent EMBs from the wider population of the UK. US EMBs asked questions about UK EMBs mainly representing East Midlands. Many US EMBs were looking to have the opportunity to engage with businesses from across the UK. There was also evidence that any future shows should be more tightly focussed to ensure businesses operate within similar or related sectors/markets. The narrow generally regional focus of the UK EMBs taking part appears to have reduced the opportunities both for UK EMBs business relationships but also for US EMBs.

*'Initially I find it difficult but now I am enjoying it... this is great.... Its so easy to navigate but in the beginning it feels so weird as you are used to physical shows*

*where you see people... here you don't know who is visiting you but when I saw papers, its really great- I will be more happy if this is not restricted to only three days.... I am fascinated and just think what technology can achieve... do inform me when you hold it next time as I will come more better prepared., we need to realize that its an international event and we all should be more professionally prepared.. Our booths should have quality otherwise we will not reach out to US buyers and businesses' (UK EMB Participant)*

UK EMBs need to be better informed and develop their knowledge of ICT utilised in the Virtual Trade Fair environment. The quote above supports this view and was evident prior to the start of the Virtual Trade Fair, with limited booth set up and during the event, where use was primarily limited to electronic business cards and email. US EMBs had at least five years experience in the use of VTFs and were therefore at a major advantage over their UK EMB counterparts. Such experience is important when the businesses you might wish to deal with (US EMBs) are trying to communicate with you through other ICT technologies such as live chat forums. Current EMB ICT adoption and use has affected the approaches of the participants in the Virtual Trade Fair. Prospective participants in the future should undergo experiential training in the higher-level ICT requirements. Therefore a much broader programme of developing transatlantic trade relations between UK EMBs and US EMBs should include the following: Identify sectors these businesses represent; organise sector specific Virtual Trade Fairs; and possibly involve trade and industry intermediaries to bring sector specific businesses to the fair.

## **References**

- Allinson, G. Braidford, P., Grewer, N., Houston, M., Orange, R., Leigh Sear, R., and Stone, I. (2004) *Ethnic Minority Businesses and ICT*, Focus Group Research, Durham Business School for SBS, [http://www.sbs.gov.uk/SBS\\_Gov\\_files/researchandstats/EMB\\_and\\_ICT.pdf](http://www.sbs.gov.uk/SBS_Gov_files/researchandstats/EMB_and_ICT.pdf), accessed 01/12/2005.
- Beynon-Davies, P. (2004) *E-Business*, Palgrave Macmillan.
- CEEDR (2001) *Researching Business Support Needs of Ethnic Minority Owned Businesses in Coventry and Warwickshire*, Report commissioned by the Coventry and Warwickshire Chamber of Commerce, Training and Enterprise, Centre for Enterprise and Economic Development Research, Middlesex University.
- Chaffey, D. (2003) *E-Business and E-Commerce Management*, 3rd Edition, Pearson Education.
- Cunningham, M. J. (2002) *B2B: How to Build a Profitable E-commerce Strategy*, Cambridge MA Perseus.
- Curran, J. and Burrows, R. (1988) 'Enterprise in Britain: A national Profile of Small Business and the Self Employed', Small Business Research Trust, London.
- Deakins, D. and Freel, M. (2003) *Entrepreneurship and Small Firms*, London, McGraw Hill.
- Dou, W. and Chou, D. C. (2002) 'A structural analysis of business-to-business digital markets', *Industrial Marketing Management*, Vol. 31, pp. 165– 176.
- Foley, P. & Ram, M. (2002) 'The use of online technology by ethnic minority businesses: A comparative study of the West Midlands and UK', De Montfort University Monograph (available at <http://www.sbs.gov.uk/contents/research/EMB-IT.pdf>).
- Ho, D. C. K., Au, K. F. and Newton, E. (2002) 'Virtual communities of trade: The strategic fit of resources acquisition and virtual coordination mechanisms in supply chains', Working Paper, Institute of Textile and Clothing, The Hong Kong Polytechnic University.
- Ho, D. C. K., Au, K. F. and Newton, E. (2003) 'The process and consequences of supply

- chain virtualization', *Industrial management and Data Systems*, 103 (6), pp.423-433.
- Levy, M., Powell, P. and Yetton, P. (2001) SMEs: Aligning IS and the Strategic Context, *Journal of Information Technology*, September 2001, 16, pp. 133-144.
- Levy, M. and Powell, P. (2003) Exploring SME Internet Adoption: towards a contingent model, *Electronic Markets*, 13(2), pp. 173-181.
- Premkumar, G. and Roberts, M. (1999) Adoption of new Information Technologies in Rural Small Businesses, Omega, *International Journal of Management Science*, 27, pp. 467-484.
- Ram, M. and Barrett, G. (2000) 'Ethnicity and enterprise', in S. Carter and D. Jones-Evans (Eds) *Enterprise and small business: Principles, Practice and Policy*, London: FT Prentice.
- Ram, M., Gilman, M., Arrowsmith, J. and Edwards, P. (2003) 'Once more into the sunset? Asian Clothing firms after the National Minimum Wage', *Government and Policy (Environment and Planning 'C')*, 21, pp. 71-88.
- Ram, M. and Smallbone, D. (2002) Ethnic Minority Business Support in the Era of the Small Business Service, *Environment and Planning: Government and Policy*, 20, pp. 235-249.
- Ram, M. and Smallbone, D. (2001) Ethnic Minority Enterprise: Policy in Practice, Final Paper prepared for the Small Business Service, June 2001. [www.sbs.gov.uk](http://www.sbs.gov.uk)
- Ram, M. and Smallbone, D. (1999) Ethnic Minority Enterprises in Birmingham, Paper presented to the 2nd Ethnic Minority Enterprise Seminar, London, November 1999.
- Ram, M. and Jones, T. (1998) *Ethnic Minorities in Business*, Small Business Research Trust.
- Rounds, M. (2002) Virtual Trade Shows, Expert Magazine, [http://www.expertmagazine.com/artman/publish/article\\_18.shtml](http://www.expertmagazine.com/artman/publish/article_18.shtml), published 25/06/2002, accessed 27/05/2005
- Sanderson, I. (2002) 'Evaluation, Policy Learning and Evidence-based Policy Making', *Public Administration*, 80 (1), pp. 1-22.
- Saunders, M, Lewis P, and Thornhill, A. (2003) *Research Methods for Business Students*, 3<sup>rd</sup> edition. London, Prentice Hall.
- SBS (2004) SBS Boost Survey.
- Stanworth, J and Gray, C. (1991) (Eds.) *Bolton 20 Years On: The Small Firm in the 1990s*, Paul Chapman, London.
- Turban, E., King, D., Lee, J. and Viehland, D. (2004) *Electronic Commerce 2004: A Managerial Perspective*. 3rd Edition, Prentice Hall
- Willcocks L., Sauer, C. and Associates (2000) *Moving to E-Business: The Ultimate Practical Guide to Effective E-Business*, Century Press, ISBN 0712669833.