

How developing country firms self-represent to establish their global credibility

Helena Barnard, Gordon Institute of Business Science, University of Pretoria, South Africa

Abstract

The recent era has seen the increased visibility of multinational corporations (MNCs) from the developing world. Firms from developing countries are as a rule smaller than firms from the developed world, and also hail from areas that are not known for their economic competence. This paper examines how developing country firms self-represent to overcome those barriers and establish their credibility in the global business arena. I compare and contrast the websites of the Top 50 MNCs from less and more developed countries (as per the 2003 UNCTAD World Investment Report.) As documents capturing firms' attempt to navigate the social context within which they find themselves, websites render useful insights into how firms perceive that context. The websites of developing country firms clearly seek to present them as competent insiders, suggesting that developing country firms struggle with establishing their credibility in the developed world. In order to create the impression of equity between them and leading firms, the more limited geographical and product scope of developing country firms is underemphasized. In contrast, contracts, awards and accreditations from the developed world are highly prized and given greater prominence than similar business connections from the firm's own (less developed) region.

How developing country firms self-represent to establish their global credibility

As firms from less developed countries are increasingly investing in the developed world, they face a challenge in terms of establishing their legitimacy. Firms benefit to the extent that they can demonstrate a track record of competence, and it is generally in their interest to highlight prior experience and achievements. However, the experience of most developing country firms has been in their home or other less developed countries, and too much emphasis on those contexts may well mark them as less capable outsiders. Developing country firms must therefore show competence and experience with limited reference to where it was developed.

I compare and contrast the websites of the fifty leading firms from the developed and developing world respectively, and find that the self-representation of developing country firms is aimed at creating the impression of equity between them and leading firms. As documents capturing firms' attempt to navigate the social context within which they find themselves, websites render useful insights into how firms perceive that context. The websites of developing country firms clearly seek to present them as competent insiders, suggesting that developing country firms struggle with establishing their credibility in the developed world. In consequence, websites under-emphasize the more limited geographical and product scope of developing country firms, while contracts, awards and accreditations from the developed world are highly prized and given greater prominence than similar business connections from the firm's own (less developed) region. This suggests that not being recognized or at least typecast as a developing country firm represents an achievement for these firms.

Websites as vehicle for self-representation

The indignant comment by a senior research manager at arguably the most powerful

firm in South Africa points to the important role of web presence for developing country firms:

I once had a company in America that did not want to work with us, because they said they're American and they don't service Africa. So I sent an email and I said we're a little bitty operation at the bottom of Africa, and here's our web address, and maybe you want to look what we do and reconsider working with us.

A web presence allows a developing country firm to overcome the constraints of its (often peripheral) geographical position, because a website is immediately internationally accessible. Websites are especially useful as a gateway to the global marketplace for relatively weaker and smaller firms (Dou, Nielsen, & Tan, 2002; Hamill, 1997; Quelch & Klein, 1996). It allows the firm to present itself favorably to a range of stakeholders, including potential suppliers, investors and customers. It is an important tool that developing country firms can use to position themselves globally, and specifically to establish their credibility among other firms.

Marketing researchers have conducted extensive research on websites, with researchers identifying two (Dou et al., 2002), three (Griffith & Krampf, 1998) and four (Rodgers, Jin, Rettie, Alpert, & Yoon, 2005) central functions. The proliferation of functions can be attributed to the fact that the Internet represents "the first advertising channel that is not only a medium in and of itself but also a valuable extension of traditional channels" (Philport & Arbittier, 1997:75). However, the range of motives can be categorized into two main categories: An Internet-based website can serve as a communication medium enhancing the visibility of the firm, or (and) as a platform for electronic transactions. Certain dimensions are associated with each function. Where websites act as communication media, establishing credibility is key, e.g. by communicating the quality of the firm's offering or its global scope. Where it is primarily a vehicle for electronic transacting, functionality (e.g. secure transacting and informative graphics) becomes important (Dou et al., 2002; Lynch, Kent, & Srinivasan, 2001; Okazaki, 2005).

In this study, I focus on websites as communication tools that aim to establish credibility. It is not possible to determine the intended audience of websites – firms may equally well hope to impress customers, smooth their access to an industry association, attract an alliance partner, manage media portrayals and so on. However, issues that recur on websites are likely to be issues that are particularly salient to the firm. Websites can therefore usefully be read as firms' attempts to both respond to an imagined perception, and to help shape a desired perception.

I rely on methodological guidelines developed in studies of both websites and annual reports. To the extent that both are examples of self-representation where the goal is to create the best possible impression on the reader, websites are similar to annual reports. Annual reports are studied mainly in the field of Accounting, but are also occasionally used by management scholars to uncover the tacit value and belief systems of organizations (Anderson & Imperia, 1992; Dougherty & Kunda, 1990; Yuthas, Rogers, & Dillard, 2002).

Hypotheses

In analyzing the websites, I focus on how firms represent their national origin and their international presence, and in particular, how developing country firms seek to establish their credibility in a global context. I determine if there is a pattern in how firms from developed and developing countries report the national and international scope of their operations: Their origin, the scope of their operations, and international recognition.

Previous research has established the important role of mimicry as a mechanism for diffusion (Lee & Pennings, 2002) and especially to establish legitimacy for less powerful actors (Khair, 2005). Mimicry by developing country subsidiaries is not necessarily a neutral act, e.g. using a template that has been developed by others simply because it saves one the effort to reinvent the wheel. Rather, it is often a response to the pressures of the more developed host location: Mimicry allows firms to present themselves as if they are not from

developing countries. My preliminary research suggests that firms quite often dissociate themselves from their home countries. E.g., the English website of one of Brazil's most successful IT firms, Datasul, makes no mention of the firm's Brazilian origins. Only US contact information is provided, and under "Historical facts" the website (<http://www.datasul.com/historico.htm>) proclaims that Datasul was founded in "April 1978 in Joinville SC". It requires prior knowledge of the firm or its home country to know that it was founded not in South Carolina in the US, but in Santa Catarina in Brazil. In another case, SABMiller sued (and won a partial victory against) Anheuser-Busch for its rival's "Miller is South African owned" strategy by claiming that it was not South African, but UK-based, where it has its primary listing (Eisenberg, Thigpen, & Robinson, 2004) – even though at the time the bulk of SABMiller's earnings came from South Africa, as well as its entire top management team.

I therefore expect the mimicry of developing country firms to be strategic: Their websites will seek to mirror the websites of leading MNCs in most aspects, except when it may expose weaknesses of developing country firms. To the extent that they suffer from a more limited capability base than leading firms, developing country firms wishing to establish their global credibility are likely to avoid drawing attention to their more limited capability base. Following Penrose (1955) I look at the scope of both their products and their geographical operations, and hypothesize:

H1a: The websites of developing country firms are less likely to offer detailed information about their **products** than websites of firms from the developed world are.

H1b: The websites of developing country firms are less likely to offer detailed information about their **international operations** than websites of firms from the developed world are.

Although developing country firms are unlikely to gain much credibility from their (more limited) international operations, they need to communicate that they are globally active firms. I argue that they achieve this by emphasizing international relationships rather

than international operations. Podolny's work (2005) on status documents that status "leaks" – that lower status entities can increase their perceived status by interacting with higher status entities. In other words, for developing country firms business connections with the developed world not only indicate global competence, but also serve an important legitimizing function. But whereas mention of connections with partners from the developed world signal the "league" in which developing country firms (hope to) operate, the leading MNCs from the developed world do not need the legitimizing device. In fact, status is likely to leak away from them, and where business partners are equally prominent, they may fear a dilution of the brand impact of their website. This leads me to hypothesize:

H2: The websites of developing country firms are more likely to document business connections from the developed world than websites of firms from the developed world are.

Finally, the mere fact of their historical origins – that they are from economically less successful countries that are marginal players in the world economy – is likely to present developing country firms with a potential barrier. It can therefore be expected that firms from developing countries will be cautious about disclosing their links with those countries in communications – like websites – that are visible to potential partners in the economically more successful developed world, and I hypothesize:

H3: The websites of developing country firms are less likely to disclose their geographical origin than websites of firms from the developed world are.

Methodology

I analyze the websites of the top 50 non-financial MNCs from the developed and developing world respectively (for 2003, and as listed in UNCTAD's 2005 World Investment Report) to determine how developing country firms seek to establish legitimacy in an international context¹. The UNCTAD index ranks firms in terms of the value of their foreign

¹The database distinguishes the "world's top non-financial TNCs" and "the top non-financial TNCs from developing countries". The largest developing country firm, Hutchison Whampoa is included in the top 50 of

assets, and all the firms are therefore active in multiple markets. As contrast makes more salient the differences and similarities between groups (Glaser & Strauss, 1965), I systematically contrast the firms from more and less developed home countries.

I provide statistics (derived from the UNCTAD World Investment Report) in evidence of the fact that firms from more and less developed countries do in fact differ in terms of their asset base and degree of internationalization, and then analyze the websites of the firms. By definition, all of the firms that I study have international operations, and their websites can therefore be read as attempts to communicate not only within their home country, but also with readers from other parts of the world. The content of the websites was captured between January and April 2006.

One of the advantages of an archival data source like websites is that it overcomes social desirability biases that are likely to affect responses to the basic research question of this paper – whether firms believe they suffer from a disadvantage in the developed world because of their developing country origins, and the strategies, perhaps even including misrepresentation, that they use to establish their global credibility. Websites also have the advantage of being a truly global form of communication, but unlike annual reports, the content of websites is not governed by government regulations. Firms are free to omit or include any information on their websites, whereas there are very specific disclosure requirements for annual reports. Because they are governed by legal requirements, the comparability of annual reports is high. To further reduce unnecessary variation, studies of annual reports often focus on specific industry groups (Anderson & Imperia, 1992; Dougherty & Kunda, 1990) or on matched pairs of firms (Yuthas et al., 2002). Matching firms is almost impossible to do when comparing the websites of leading developing with developed country firms. The leading MNCs are from a wide range of industries, but

both databases. I analyze it only as a developing country firm, and replace it with the 51st largest firm for the "world's top non-financial TNCs" category.

developing country firms are active in a much narrower range of industries.

There are in other words two sources of variation that need to be addressed. First, it needs to be established whether there is a general "template" for websites, albeit not a regulatory mandated one. In other words, to what extent do websites function as a stable form of self-representation both across industries and across firms from both developed and developing countries? In addition to potential differences in how firms use the representational form, the underlying situation or "reality" that developed versus developing country firms encounter tends to be quite different. E.g., the average asset base of the Top 50 developing country firms in the sample is just 12% (US\$14,217 million) of that of the Top 50 firms worldwide (US\$120,285 million).

This raises the issue of the extent to which the two groups of firms are at all comparable, and it is necessary to consider the different dimensions of the identities of firms in these types of databases. Firms from developing countries in the UNCTAD database are the largest players in their home environments and considered exemplars of achievement domestically and among their peers in other developing countries. Similar-sized firms from the same industries in the developed world are likely to be medium-sized players who attract little media attention, and representational issues may well be less salient for these firms. Because it is virtually impossible to match firms simultaneously in terms of the dimensions of status, size and industry, and because I am concerned with issues of status and representation, I focus on firms that are similar in status from the point of view of their home countries.

A consequence of this decision is that it is not possible to distinguish whether effects are due to firms' relatively more limited capability base, or specifically their national origin. Indeed, to the extent that developing country MNCs are not inherently different from advanced MNCs, but simply at a different stage of their evolution, smaller firms and late internationalizers from the developed world may behave similarly to developing country

MNCs. The study can therefore offer evidence of whether developing country firms are trying to strategically mimic the global leading firms, but that it cannot uncover whether their immediate competitors from the developed world do the same.

To further mitigate the difficulties presented by the fact that firms are from diverse industries, often operate in very different geographical areas, and have a very different stock of human and other assets, the analysis is focused on self-representation, nationality and multinationality. In other words, the questions asked are of a general nature and not likely to be overly influenced by industry characteristics, e.g. there is no reason to assume that certain industries are more prone to have graphics versus pictures of people on their websites, or more likely to refer to their multinationality incidentally versus overtly. However, the focus on firms that are comparable in terms of their status rather than in terms of industries implies that it is not possible to comment on industry-specific effects.

In order to determine whether there is a stable pattern for how firms self-represent, the websites of firms from both developed and developing countries are content analyzed to determine to what extent they organize information according to the same standard categories. Although English is not an official language in the home country of many of the firms (from both developed and developing countries), all the websites are available in English. For the sake of comparability, all the analyses are based on English websites. I follow Okazaki (2005) in using the homepage of each firm's website as the unit of analysis. The hyperlinks on homepages are typically organized in (at least) two sets of categories. The first is obvious, typically in large print and at the top of the page, whereas the second is much less prominent, typically smaller and at the bottom of the page. Both their more limited prominence and the categories typically found there (e.g. hyperlinks to the terms of use, privacy policy and sitemap) suggest these categories are used for due diligence purposes rather than to establish the firm's image. Because my primary interest is in how firms self-

represent, I analyze only prominently displayed categories.

The web categories were initially identified after a cursory survey of websites, and then a second, more rigorous analysis was conducted to establish the extent to which they are generally-used categories. The terms firms use to designate these categories vary somewhat; e.g. Media Center, News or News Center, Press or Press Room. Most of these differences are intuitively understandable, but where they were not, the content of a category was specifically investigated. Whatever the term used, as long as the general category was clearly intended, it was included.

Having established the extent to which websites are a valid source of information for cross-industry and cross-national analysis, I can address how firms choose to represent themselves. Because of the importance of mimicry, it can be expected that the websites of the less powerful developing country firms will in many respects be similar to those of the more powerful MNCs. My challenge is to uncover what firms do not necessarily wish to be known, and I therefore "read against the grain", i.e. code not only what the websites communicate, but also what they omit or only obliquely communicate. This strategy, which is well-known in post-colonial and gender studies, involves imposing certain sense-making frameworks or categories on the text (Sharrad, 1994). In other words, I analyze the pattern of what is similar and what is dissimilar on the websites of MNCs from the developed and developing world in order to determine if developing country firms are either over-representing their global reach and competence, or omitting information about potential areas of weakness.

I focus on both text and images on the website. In a public document like a website or annual report, organizations self-consciously display themselves and their relationships, and the choice about which photographs to include is part of this deliberate creation of meaning (Dougherty & Kunda, 1990). I therefore also focus on photographs and the portrayal of people on the website to determine the extent to which the firms portray the images of

members of the majority population of the areas from which they hail.

I offer quantified data to substantiate my claims, but also conduct a semiotic analysis of a few websites to investigate more richly how these processes function. The analytic procedures for the two approaches differ in that in the content analysis, I simply identify whether an image, hyperlink or claim is present or not. In the semiotic analysis, I consider images, linkages and claims in relation to each other, and how they create meaning in relation to the rest of the web page. The analysis remains guided by a concern with self-representation, nationality and multinationality. Because of possible social desirability biases, the entire analysis is based only on publicly available data, and findings are not corroborated or extended through detailed case studies.

Results

The international presence of firms from more and less developed countries

An analysis of the size and degree of internationalization of firms from developed versus developing countries demonstrates quite clearly that firms from developing countries are not only much smaller than those of developed countries, but also much less internationalized, whether measured in absolute or relative (to overall operations) terms. The only cases where the differences between the two groups are not significant are in the cases of the ratio of foreign-to-total sales, and foreign-to-total employees. However, the ratios of foreign-to-total assets and foreign-to-total affiliates do differ significantly, as well as the absolute values of all the dimensions mentioned above.

I do not wish to suggest that there is an essential difference between the firms of developed and developing countries. An evolutionary paradigm of cumulative capability accumulation predicts that developing country firms can and do develop into large and powerful firms – a point often made when cautioning against essentializing developing country multinationals (Lall, 1983; Yeung, 1994). Indeed, the extent to which the distinction

between developing and developed country firms is not a stable one is clear from a variety of current examples, including the continuing ascent of LG, Samsung and Hyundai, the fact that Hutchison Whampoa appears in the databases of both largest firms worldwide and largest developing country firms, and the fact that the UK-listed South African firm Anglo-American does not appear in the database of largest developing country firms – only for top firms worldwide – even though UNCTAD recognizes South Africa as the country where ultimate control lies.

But whatever the possibility of future growth, Table 1 indicates that there is a currently a non-trivial difference in the extent and geographic distribution of the asset base of firms from developing versus developed countries. In other words, the underlying "reality" of the two sets of firms is quite different. That "reality" has at least two salient dimensions. First, firms from developing countries are simply smaller and active in fewer geographical locales. Second, they originate from parts of the world that are not known for being economically successful. Whereas the first can be related to the more limited internal capability base of firms, the second taps into the external social context that firms must negotiate.

[Table 1 about here]

Content analysis

The analysis of websites indicates that there is clearly a template for how firms self-represent on their websites, and that firms from more and less developed countries rely on the same template. The characteristics distinguishing websites that serve as vehicles for electronic transaction from those that function as communication media are derived from previous research (Dou et al., 2002; Okazaki, 2005). Websites were categorized as serving as vehicles for electronic transactions if they contain a hyperlink for shopping, whether designated by the image of a shopping cart or phrases (shoppers, shopping, etc.) or when they

had an option for a personalized log-on that allows for the development of a one-on-one relationship. Only 11 firms from developed and 12 from developing countries (each out of 50) serve as a vehicle for electronic transactions. However, with a few exceptions, the transacting and self-representing dimensions are not mutually exclusive, as almost all the websites seem to function as vehicles for self-representation.

Table 2 provides evidence that certain categories have indeed become standard fixtures on firms' websites, even though firms are under no legal obligation to include or exclude certain sets of information. It also indicates that the websites of the leading developing country firms do not differ in a statistically significant way from those of the leading MNCs worldwide. Even when a hyperlink appears relatively seldom (e.g. to Careers or Social Responsibility) it is less common on the websites of firms from both developed and developing countries.

[Table 2 about here]

The "Who we are" / "About us" / "Corporate Identity" category is explicitly about how the firm identifies itself. Where that hyperlink was present (in most cases) I also analyzed those pages. However, the findings from those "identity" pages are the same as those found on the homepage. Although I do not report results from the "identity" pages (they are very similar to results from the analysis of homepages) they do act as a kind of robustness check, suggesting that the findings are not incidental, but rather reflect the strategic communicative intent of firms.

The similarity in the websites of the two groups of firms – even though firms function in very different contexts – confirms that the attention of internationalizing developing country firms is focused on the leading MNCs. Developing country firms seek recognition by actors in the developed world – even when most of their actual expansion takes place in other developing regions. The analysis also provides further evidence of the importance of mimicry

as a strategy to establish legitimacy (Khaire, 2005).

The universal use of English as the language of the websites is telling in this regard. Table 1 indicates that developing country MNCs are significantly less internationalized than their counterparts from the developed world, and prior research has also established a strong regional bias in the expansion of firms, especially from developing countries (Ozawa, 1992; Rugman, 2003; Tolentino, 1993). In other words, a significant part of the international operations of firms from countries like Brazil, China, and Malaysia is not likely to be located in the English-speaking world. The choice of English for the website, the lingua franca of the global business world rather than or in addition to a regional language, therefore suggests that developing country firms are attempting to communicate with a global audience, and to establish themselves as bona fide participants in the global economy. The wide range of strategies used to signal credibility suggests that firms may not yet feel themselves accepted in that community.

The only category where the difference between developed and developing country MNCs approaches significance (at the 10% level) is for the product/service offering: Leading MNCs are more likely to have a dedicated category for discussing their products than developing country firms, a fact that lends some support to H1a. The leading developing country firms are often original equipment manufacturers for other firms, or in commodity-type industries. A detailed review of such products is less likely to much enhance firms' credibility than in the case of (e.g.) pharmaceuticals or automobiles, and developing country firms therefore more often omit product details.

A detailed analysis of how firms represent their multinationality also offers support for H1b. Table 3 indicates that the leading MNCs of the world are far more likely to indicate the broad geographic scope of their operations than the leading developing country firms. This is the case not only where the scope of operations globally are explicitly indicated

(which may reflect the fact that the developing country MNCs are simply much less internationalized) but also in the use of less precise phrases such as "worldwide reach" or "Asia and beyond".

[Table 3 about here]

Developing country firms avoid mention of their degree of multinationality and attempt to establish their legitimacy as global players differently: By invoking their international business relationships or international recognition. There is therefore support for H2. Developing country firms are significantly more likely to highlight the leading MNCs for which they provide products or services, which they sponsor and with which they collaborate. Likewise, they are much more likely to mention international accreditations or international rankings than leading MNCs. Stuart (2000) documents that alliances offer not only access to knowledge, but also status to weaker (in his case, young and small) firms. A similar process seems at work here – the business relationship with a better-known firm from the developed world, or a mention by an internationally known rating agency signals the competence of the developing country firm.

We [Barloworld] sell Caterpillar on three continents.

Keppel wins S\$96 million conversion contract from Maersk Contractors.

Alternative parts to Phillips SOD87 [Taiwan Semiconductor]

SingTel rated highly as leading regional telco in Gartner's report and Frost & Sullivan awards

LG ranks first in CDMA.

As far as H3, on the relationship between developing country firms and their parent country, is concerned, the relationship is more complicated than hypothesized. The relationship between developing country firms and their parent countries is on the whole closer than the relationship that the leading global MNCs have with their parent countries. Many of the leading developing country MNCs were created to meet strategic national

objectives and remain under significant government control (Goldstein & Miroux, 2006). The close ties between the South Korean government and its chaebols (Sachwald, 2001) are well known. Significant government presence is found in firms in the strategic industries of a number of countries, e.g. China's Ocean Shipping Company, India's Oil & Natural Gas, Malaysia's Petronas, and Hong Kong's National Energy Holdings. Even when firms have evolved from their original national mandate, e.g. South Africa's industrial chemicals firm SASOL or the Brazilian mining group CVRD, the firm's history remains intertwined with its country's history. In all, seventeen of the top 50 developing country firms in the UNCTAD database fall under this category. Nine firms from the developed world have similar histories (e.g. Deutsche Post and France Telecom) and the analysis is repeated for the entire sample and for firms without any current or prior state ties.

There is no difference in the extent to which firms from both less and more developed countries disclose their national origin through subtle or incidental cues like the use of the national flag (e.g. the Spanish flag as hyperlink to the Spanish-language website), the currency in which the stock is reported (Swiss frank or Singaporean dollar) or disclosure of the location of headquarters (Johannesburg Stock Exchange). However, developing country firms are more likely to explicitly indicate their national origin (Table 4). This holds whether firms have current or prior state ties or not. It seems simply that their national origin is a less important dimension of the identity of the leading MNCs. But while the text on developing country MNCs' websites communicates a close relationship between the parent country and the firm, the imagery suggests differently.

[Table 4 about here]

To conduct a content analysis of images, I counted the total number of people whose images appear on the website. I then categorized them into people who are recognizably representative of the ethnic majority of the firm's home region (Africans in Africa, Asians in

Asia etc.), people who are recognizably not (the Asian scientist on the homepage of the German firm BASF, Figure 1) and people whose ethnic identity is not identifiable. This could be either because their identity is expressly concealed (e.g. the silhouettes on the site of the Taiwanese firm UMC, Figure 1), because the image does not fit into what are in some sense crude ethnic stereotypes (e.g. should the man depicted on the Petrobras homepage, Figure 1, be regarded as an authentic Brazilian?) or finally because the image is simply not large or clear enough to make out ethnic identity. Whereas all the prior categories were coded on a binary basis (present/absent), in this case percentages are calculated.

[Figure 1 about here]

Table 5 indicates that the leading developing country firms are much less likely to visually communicate their rootedness in a given region than the leading firms from the developed world: Less than 40% of the people portrayed on the websites of the developing country firms are recognizably from the region, compared to more than 60% of those on the sites of the leading MNCs. This finding also holds when focusing on firms without any prior or current state ties, and lends some support to H3, that firms underemphasize their developing country origins.

[Table 5 about here]

No difference is found when considering whether websites rely on images of people or not: Although the majority of firms do include some images of people, firms from the developed and the developing world, and with or without state ties are equally likely (in about a third in both cases) to not include any images of people and rely only on graphics. Likewise, in the representation of people with indistinguishable ethnic identities, the websites of the leading firms from the developed and developing world look very similar. In a sense, the websites of the two groups of firms look very similar even in terms of ethnic representation: They are dominated by Westerners. In spite of Japan's significant presence,

the global economy remains dominated by European and North American firms – only six of the firms in UNCTAD's (2003) Top 50 non-financial TNCs are Japanese – and the default image of the businessperson is a Western man. Developing country firms successfully mimic the appearance of the websites of the leading MNCs globally by likewise populating their own websites with images of Westerners. The visual distancing from their (economically less successful) home region and the strong emphasis on their international credentials both seem to be strategies that developing country firms use to show that they are "just like" the other firms from more developed countries.

In short, developing country firms seem to have an ambivalent relationship with their home country. The home country seems to be regarded simultaneously as more important in defining the identity of developing country firms and as a potential complicating factor. The content analysis also indicates that developing country firms do succeed in establishing business relationships with partners in the developed world. But the fact that this is a process characterized by trade-offs and tensions is made evident by their simultaneous emphasis on relationships in the developed world, and their ambivalent relationship with the developing world. The nature of this tension is further explored through more detailed semiotic analyses of some websites.

Semiotic analysis

The previous section indicates that developing country firms rely on mimicry to address the perceived challenges that stem from their relatively marginal economic and social position. Firms' mimicry is strategic – they do not mimic the leading firms in all aspects. They describe their (often commodity-type) products in less detail, underemphasize their (more limited) geographical scope, more often disclose their international relationships and credentials than the leading MNCs, and less often represent images of people from their home region, instead relying on images of Westerners.

The websites of developing country firms therefore speak of their progress in establishing themselves as fully-fledged global players, but especially the omitted information suggests that this is a fraught process. A detailed semiotic analysis of the homepages of four firms is consistent with the content analysis. The firms were chosen to meet the following criteria. First, all the firms are exposed to the developed world, e.g. through subsidiaries, lead clients, and/or stock exchange listings. This meant excluding firms under direct government control, e.g. Malaysia's Petronas and various Chinese energy and infrastructure companies. Second, firms are from low and medium research-intensive industries where developing country firms are concentrated. Third, they are from different regions, covering Africa, Asia and Latin America. However, because of Asia's dominance (more than two-thirds of UNCTAD's Top 50 developing country firms are Asian) and because of Asia's unusually strong presence in high research-intensive industries (Lall, 1998) two Asian firms are discussed, a high research-intensive in addition to a low research-intensive manufacturing firm.

Sappi

[Figure 2 about here]

The websites of almost all the firms from both the developed and developing world do offer some firm history if the reader is prepared to spend some time searching for it. According to the "Our company history" subsection of the "About Sappi" section of its website, South African Pulp and Paper Industries Ltd was registered as a company in 1936. For the next 50 years, Sappi operated almost exclusively in South Africa. On its fiftieth anniversary, in 1986, it created an export division, and from 1990 onwards it embarked on a series of international expansions, especially in the developed world.

In spite of this information that is available to a reader who drills down on the site, the Sappi homepage communicates neither its South African origins, nor the recency of its

international experience. The homepage (see Figure 2) is laid out in four main blocks. The bottom ("News" on the left, and "Products" and "Initiatives" on the right) and top-right ("Welcome to Sappi") parts do not change, but the top-left consists of four changing images and slogans. The "Welcome to Sappi" block proclaims that it is "the world's leading producer of coated fine paper and chemical cellulose". In the earlier content analysis section, there is evidence that developing country firms are less likely to provide categories with an overview of their products. An example of such hesitance about emphasizing the actual product can be seen on the Sappi website.

Sappi avoids depicting images of paper on its website, and even under the category "Products" there is not a clear link between the (presumed) brand and the accompanying image. An image of a patriarch, a severe-looking older white man with an old-worldly brow and mustache illustrates "Patina". "royal" is illustrated with an image of people seated on a red sofa in striking but unusual clothing, specifically the combination of sport shoes, sunglasses, and a bright blue torso suit. "nextgeneration" is illustrated with a clever arrow-logo. The images in these logos communicate not product information, but authoritativeness (Patina), urbanity (royal) and progress (nextgeneration), values that Sappi would like the reader of the website to hold about it.

[Figure 3 about here]

These values are also communicated through the changing images in the top-left block. (The images are collated in Figure 3.) The site opens with young professional white man in a suit, looking down at a magazine in his hands. The item is partly obscured by the slowly changing text:

World leader in coated fine paper...
... you see our products every day

The sophistication and urbanity of the man is communicated through the unconventional combination of a black suit, black shirt and black tie. The image then changes

to a graphic of a world map. The map is stylized, with continents indicated in black dots, creating a contemporary feel. The map is also at an angle to how it is normally presented, with Africa not in the middle, but more to the bottom and right, and Europe at its center. The unusual angle of the map creates the impression of a dynamically rotating globe, but also results in the "displacement" of the home country. This visual "displacement" is not incidental, as the entire Sappi homepage is geared towards creating the impression that it has moved beyond its strong South African roots. The text on the graphic reads:

Global reach...

... manufacturing on four continents and sales in 100 countries

The third image is of the top of the business page from a newspaper, with the word "stock" clearly visible. Unlike the very modern design of the map, the font (and the feel evoked by the image) is a classic, authoritative one. The text rolls in:

A key measure of our success...

...shareholder returns

The final image conveys an authoritative, long-established world to an even greater extent: Dark-rimmed glasses, an uncapped ink pen, two newspapers (the Herald International and FTB, neither of which are South African) and a simple black (Sappi) diary. The text accompanying this image reads:

Listed on the Johannesburg, New York,
London and Frankfurt stock exchanges.

Apart from the image relating to shareholder returns, all of the images emphasize a global identity: "World leader", "Global reach" and the listing of the four globally dispersed stock exchanges where Sappi stock is listed. The clues about Sappi's South African heritage are very subtle. On the homepage, there are only three indications that Sappi has a particularly close relationship to South Africa: the fact that its shares are listed on the Johannesburg Stock Exchange, the stock price in ZAR (South African Rand) together with the US\$ price, and a news item titled "Gauteng MEC Paul Mashatile opens Sappi investment

in Technology Centre". Gauteng is the region in which Johannesburg is situated, MEC is the title of elected provincial leaders, and Mashatile is a recognizably African name. However, the reference is so specific that only people who are familiar with South Africa (and thus likely to know Sappi's origins) are likely to make the connection with South Africa. Finally, it is noteworthy that not a single image is of a black person, even though Sappi, like all South African companies, has in response to recent South African legislation significantly increased the proportion of black ownership and management of the firm. Sappi is clearly not addressing a South African audience, but instead a global audience where the challenges of and even achievements in societal transformation are likely to be seen as a liability.

In short, the Sappi website is set up to communicate that the firm has such a wide global reach that its home country has become relatively unimportant. Although the site appears to provide information about Sappi's product range (for the content analysis, the Sappi website was in fact considered a site where products are discussed) the website makes little reference to Sappi's actual products. However, every opportunity is used to present Sappi as a sophisticated international firm.

Cemex

Cemex is one of the often-mentioned success stories among developing country firms. Its history is similar to that of Sappi, and is offered on a series of drill-down pages "Milestones" under the "Our history" subsection of the "This is Cemex" section of its website. Founded in 1906, it long remained a purely domestic player. It started driving exports only from the 1980s onwards, and internationalized only in the 1990s, when it embarked on a series of acquisitions, both in Latin American countries and in the developed world, notably the USA and Spain. At the same time, it evolved from a cement manufacturer to a service-oriented company with a strong logistics basis, delivering ready-to-use building materials to building sites on a just-in-time basis. At its centenary, Cemex can celebrate its

success as a leading global "building-solutions company".

For MNCs from the developed world, milestones like centenaries may be an opportunity for unqualified celebration. For MNCs from developing countries, however, a centenary requires of them to highlight the success of the firm without drawing too much attention to the fact that the firm's origins lie in a region that is not known for its economic prowess. That tension is evident from the homepage of the Cemex website in its centenary year.

[Figure 4 about here]

The Cemex homepage (Figure 4) is organized into three vertical bands. Its logo and the different categories of hyperlinks are organized on top. The middle consists of a single dominant image with a single line of text. Three smaller blocks populate the bottom third of the home page, one block consisting of "news and announcements", one consisting of drop-down menus for both the business and geographical units of Cemex, and one of shareholder information. Every item on the homepage consists of current reports of (almost exclusively financial) performance, including links to the 2005 Annual Report, the 2005 Sustainable Development Interim Report, 2006 Dividend Information, and a longer article on the fact that "97.4% of shareholders [are] to receive CPOs or ADSs under CEMEX's stock dividend program." The Cemex homepage makes no reference to its long history, even though a "100 years" logo is positioned next to the Cemex logo.

The centenary is referred to in the slogan with the main image: "Our past paves the way for our future". But the image over which the slogan is superimposed is as a-historical as the other items on the homepage. It is a panoramic view of a prairie-like landscape, taken from such a distance that the details of the landscape are hardly visible. However, it is clear that the land has hardly been touched by a human hand – the only evidence of human presence in the expanse is the road and a Cemex truck. Although the slogan invokes the past,

the imagery on the website communicates only a fallow future. Cemex's world is not one where it is dwarfed by firms with decades of focused technological advancement; it is a world with limitless opportunity for future expansion.

The Cemex homepage makes even less reference than Sappi's to its products or industry. Even though Cemex is used on construction sites, the only image of people depicts two suit-clad professionals with briefcases. There is also no reference to the fact that it is a Mexican firm. Like Sappi's homepage, the Cemex homepage communicates that it is so globalized that its home country is no longer a defining part of its identity.

Yue Yuen Industrial Holdings

Yue Yuen is a young company – founded in 1988 – specializing in the manufacture of casual and athletic footwear. Headquartered and listed in Hong Kong, it has manufacturing facilities in China, Vietnam and Indonesia, and its rise has been impressive. It was named a constituent stock of the Hang Sei Index and Morgan Stanley Capital International Standard Index scarcely a decade after its 1992 listing. All this information is provided to a reader who drills down once, to the "About us" category – in contrast to the Cemex website where the reader has to visit 21 webpages to get an overview of Cemex's (admittedly much longer) history. Yue Yuen is therefore fairly unusual in the confidence with which it displays its developing country origins.

[Figure 5 about here]

The homepage of Yue Yuen (Figure 5) also conveys this confidence. The top third of the homepage consists not only of the standard items, e.g. logo and different categories of hyperlink, but also of the image of a very athletic Asian youth, and a slogan, "Manufacturer for the Global Market". The content analysis from earlier in the paper suggests that it is relatively rare for developing country firms to include images of people from the region, and the prominent positioning of an image of a young Asian man can therefore not be seen as

incidental. The young Asian represents how the firm would like to be perceived, with his youth and dynamism acting as a symbol of the firm's desired identity as a rapidly advancing young company. The slogan and particularly its reference to "the global market" further emphasizes Yue Yuen's ambition.

The message of global reach is further reinforced and expanded with a reference to quality in the section below that on the left-hand side. The Yue Yuen name and logo are again used with a prominent slogan: "the world's largest branded footwear manufacturer". Yue Yuen emphasizes that it is a manufacturer of a quality branded goods – by implication, not a low-cost sweat shop. What it does not explicitly state, is that it manufactures not its own brands, but those of the well-known sports goods firms, including Nike whose use of sweat shops has previously caused such a furor!

The Yue Yuen website communicates the tension between wishing to assert an own firm identity and wishing to benefit from the association with powerful firms. The firm on the one hand wishes to express that it is more than a simple assembly operation, and instead a firm with its own identity. In addition to the slogans on its homepage, its corporate information page also emphasizes its independence:

Its strength lies in providing a fully integrated supply chain infrastructure with dedicated and flexible production as well as research and development facilities for its clients.

On the other hand, Yue Yuen clearly aspires to global recognition, and the status that Yue Yuen can derive from its high-profile customers is much greater than the status it can derive from the fairly limited geographic scope (only China, Vietnam and Indonesia) of its operations. The site therefore prominently displays the logos of its immediately recognizable customers – Nike, Adidas, New Balance, Puma, Timberland and the likes. The earlier content analysis section indicates that developing country firms often rely on their association with global leaders rather than their actual degree of multinationality to establish global credibility, and this website provides quite rich evidence of how this process takes place.

Acer

Unlike Yue Yuen, Acer competes with its own brand in the global marketplace, and the difference in how they self-represent is striking. Acer, which was founded in 1976 and is headquartered in Taiwan presents its history (on four webpages, for four phases, under the "Milestones" category of the "About Acer" section of the website) mainly in terms of technological advances. A few incidental mentions are made of its Taiwanese origins; e.g., the 1983 milestone points out that "Acer is the first company to promote PC/XT products in Taiwan." The silence about its origins permeates the design of the homepage as well.

[Figure 6 about here]

The text on the homepage of Acer's website (Figure 6) is laid out to form a frame. The top consists of hyperlinks to the standard categories, including a drop-down menu to "Worldwide Locations". In addition, the left-hand side of the homepage provides (and makes visible) links to all the regional headquarters – Acer's global reach is given extensive space on the site. On the right-hand side of the text "frame" of the site, there is a news category with a variety of news items. The bottom of the frame comprises a series of logos with particularly noteworthy items: Acer's sponsorship of the Formula 1 racing team of Ferrari, Scuderia Ferrari, its good performance in the IF design awards, and a smaller logo "Empowering Technology", the counterpart to the corporate logo, "Empowering People".

Many of the themes that emerge from the content analysis are again visible. Like many other developing country firms, Acer boosts its credibility through displaying international connections. It not only clearly communicates its success in a global design award, but also relies on its connection with a well-known and well-regarded brand to signal the qualities of its own products. Acer evokes Ferrari twice on the website. It not only sponsors the Ferrari racing team, but also advertises a range of laptops named "Ferrari", clearly hoping to benefit from the brand's association with quality and speed.

[Figure 7 about here]

The visual erasure of its Asian origins is also found in the set of constantly changing images that are portrayed within the text "frame". The looping images (a selection is collated in Figure 7) display different products in different settings, but follow basically the same visual logic. A few images rely only on text and graphics ("Acer: first-to-market with full line of Intel Centrino Duo mobile technology computers"), but most of the pictures consist of one or more customers using a product. Pleased-looking customers (all of the people portrayed on the site are smiling) achieve surround sound with Acer3DSonic speakers and the Acer BarSonic subwoofer, use TravelMate 8200 or Aspire 9800, and so on. In all the images the focus is on the people, not the product, a strategy that was perhaps necessitated by the difficulties involved in visually differentiating products like laptops from each other. The images of the people reflect existing race and gender stereotypes. The work settings are dominated by men and only a single woman (the woman portrayed in Figure 6) is portrayed working. The few other women portrayed are young, beautiful and at leisure – a slogan "Take entertainment to a whole new level" appears in the same block as three smiling women. And perhaps unsurprisingly, all the people imaged on the site are Westerners.

Acer differs from Yue Yuen in that it has its own brand and cannot rely on a firm like Nike or Reebok to interface with customers. Many of the strategies used to establish legitimacy found in the content analysis are very clearly in evidence on the Acer website. The site emphasizes that it is a credible global company, with two sets of links to communicate Acer's international presence, as well as repeated references to its relationship with Ferrari. In addition, Acer relies on a gallery of images of pleased Westerners to communicate its acceptance among customers from North America and Europe, rather than highlight that a large proportion of its customers are from economically less developed regions like Greater China and Asia Pacific (where two of its four regional headquarters are).

Summary

This paper provides evidence that developing country firms do not function in a neutral social context. Even though they are the dominant and most powerful firms in their less developed home countries, the evidence from this paper suggests that developing country firms are not only marginal players in the global economy, but also that they are aware of their marginal status and trying to manage it.

A comparison of the websites of the leading MNCs worldwide and from developing countries suggests that developing country MNCs actively construct an image of themselves as firms that are bone fide participants in the global marketplace by underemphasizing elements that may set them apart from leading firms: They avoid mention of the (more limited) geographic scope of their operation, disclose less about their (often commodity-type) products and less often portray images of people from their own (less developed) regions than images of Westerners. Instead, firms from the UNCTAD Top 50 developing country list emphasize connections with firms from developed countries. Their websites often report their association with leading MNCs from the developed world, whether as their suppliers, sponsors (e.g. Petronas's sponsorship of BMW for Formula 1, or Acer's of Ferrari's racing team) or occasionally alliance partners. In short, the websites are characterized by a tension between developing country firms' desire to connect with the more developed world and their concern that their origins in a less developed context may thwart that attempt.

References

- Anderson, C. J. & Imperia, G. 1992. The Corporate Annual Report: A Photo Analysis of Male and Female Portrayals. Journal of Business Communication, 29(2): 113-128.
- Dou, W., Nielsen, U., & Tan, C. M. 2002. Using Corporate Websites for Export Marketing. Journal of Advertising Research, September/October: 105-115.
- Dougherty, D. & Kunda, G. 1990. Photograph Analysis: A Method to Capture Organizational Belief Systems. In P. Gagliardi (Ed.), Symbols and Artifacts: Views of the Corporate Landscape: 185-206. New York: Aldine de Gruyter.
- Eisenberg, D., Thigpen, D., & Robinson, S. 2004. Big Brew-Haha! The Battle Of The Beers, Time, Vol. 164: 48.
- Glaser, B. G. & Strauss, A. L. 1965. The Discovery of Substantive Theory: A Basic Strategy Underlying Qualitative Research. The American Behavioral Scientist, VIII(6): 5-12.
- Goldstein, A. & Miroux, A. 2006. Emerging Multinationals in the Global Economy: Trends and Issues. Paper presented at the Emerging multinationals meeting, Paris.
- Griffith, D. A. & Krampf, R. F. 1998. An Examination of the Web-Based Strategies of the top 100 U.S. Retailers. Journal of Marketing Theory and Practice, Summer: 12-23.
- Hamill, J. 1997. The Internet and international marketing. International Marketing Review, 14(5): 300-323.
- Khaire, M. 2005. Great oaks from little acorns grow: Strategies for new venture growth. Paper presented at the Academy of Management, Hawaii.
- Lall, S. 1983. The new multinationals: The spread of Third World enterprises. Chichester & New York: Wiley.
- Lall, S. 1998. Exports of manufactures by developing countries: Emerging patterns of trade and location. Oxford Review of Economic Policy, 14(2): 54-73.
- Lee, K. & Pennings, J. M. 2002. Mimicry and the market: Adoption of a new organizational form. Academy of Management Journal, 45(1): 144-152.
- Lynch, P. D., Kent, R. J., & Srinivasan, S. S. 2001. The Global Internet Shopper: Evidence from Shopping Tasks in Twelve Countries. Journal of Advertising Research, May/June: 15-23.
- Okazaki, S. 2005. Searching the web for global brands: how American brands standardise their web sites in Europe. European Journal of Marketing, 39(1/2): 87-109.
- Ozawa, T. 1992. Foreign direct investment and economic development. Transnational Corporations, 1(1): 27-54.
- Penrose, E. 1955. Research on the business firm: Limits to the growth and size of firms. American Economic Review, 45(2): 531-543.
- Philport, J. C. & Arbittier, J. 1997. Advertising: Brand Communications Styles in Established Media and the Internet. Journal of Advertising Research, March/April: 68-76.
- Podolny, J. M. 2005. Status signals. Princeton: Princeton University Press.
- Quelch, J. A. & Klein, L. R. 1996. The Internet and International Marketing. Sloan Management Review, 37(Spring): 60-75.
- Rodgers, S., Jin, Y., Rettie, R., Alpert, F., & Yoon, D. 2005. Internet Motives of Users in the United States, United Kingdom, Australia, and Korea: A Cross-Cultural Replication of the WMI. Journal of Interactive Advertising, 6(1): 79-89.
- Rugman, A. 2003. Regional strategy and the demise of globalization. Journal of International Management, 9(4): 409.
- Sachwald, F. 2001. Globalization and Korea's Development Trajectory: The Roles of Domestic and Foreign Multinationals. In F. Sachwald (Ed.), Going Multinational: The Korean Experience of Direct Investment: 361-382. London: Routledge.

- Sharrad, P. 1994. Speaking the unspeakable. In C. Tiffin & A. Lawson (Eds.), De-scribing Empire: Post-colonialism and textuality: 201-217. London and New York: Routledge.
- Stuart, T. E. 2000. Interorganizational alliances and the performance of firms: A study of growth and innovation rates in a high-technology industry. Strategic Management Journal, 21: 791-811.
- Tolentino, P. E. 1993. Technological innovation and Third World multinationals. London: Routledge.
- UNCTAD. 2005. World Investment Report: Transnational Corporations and the Internationalization of R&D: 332. New York and Geneva: United Nations, United Nations Council for Trade and Development.
- Yeung, H. W.-C. 1994. Third World multinationals revisited: a research critique and future agenda. Third World Quarterly, 15(2): 297-317.
- Yuthas, K., Rogers, R., & Dillard, J. F. 2002. Communicative Action and Corporate Annual Reports. Journal of Business Ethics, 41: 141-157.

Table 1: Comparison of international presence of top 50 firms from developed and developing world respectively

		Mean	Std. dev.	t-test for equality of means				
				t-value	df	Sig.	Mean difference	Std. error difference
Foreign assets	Top MNCs	62,472	51,503	7.785	98	0.000	57,499	7,386
	Developing country MNCs	4,973	8,666					
Total assets	Top MNCs	120,285	108,822	6.781	98	0.000	106,068	15,641
	Developing country MNCs	14,218	19,743					
Ratio of foreign to total assets	Top MNCs	0.57	0.19	3.229	98	0.002	0.14	0.04
	Developing country MNCs	0.43	0.23					
Foreign sales	Top MNCs	43,510	37,113	7.408	98	0.000	39,425	5,322
	Developing country MNCs	4,085	6,228					
Total sales	Top MNCs	81,520	60,841	8.040	98	0.000	71,271	8,865
	Developing country MNCs	10,249	15,081					
Ratio of foreign to total sales	Top MNCs	0.57	0.20	0.511	98	0.610	0.03	0.05
	Developing country MNCs	0.54	0.30					
Foreign-based employees	Top MNCs	91,208	70,953	6.066	98	0.000	69,667	11,484
	Developing country MNCs	21,541	39,494					
Total employees	Top MNCs	192,225	218,165	3.368	98	0.001	130,294	38,688
	Developing country MNCs	61,931	165,055					
Ratio of foreign-based to total employees	Top MNCs	0.53	0.20	1.367	98	0.175	0.07	0.05
	Developing country MNCs	0.46	0.32					
Foreign affiliates	Top MNCs	260	202	3.842	98	0.000	183	48
	Developing country MNCs	77	269					
Total affiliates	Top MNCs	382	280	4.099	98	0.000	254	62
	Developing country MNCs	128	337					
Ratio of foreign to total affiliates	Top MNCs	0.68	0.16	4.043	98	0.000	0.19	0.05
	Developing country MNCs	0.49	0.28					

Significant at the 0.01 level

Source: UNCTAD 2005 World Investment Report; asset and sales values in millions of US dollars

Table 2: Comparison of hyperlinks on homepages of developed and developing country firms

Category	Hyperlinks on homepages of:		Pearson Chi-square	
	Firms from developed countries	Firms from developing countries	Value	Asymp. Sig. (2-sided)
About us / Corporate profile / Who we are / Explore X / Our Group	94%	90%	0.543	0.461
Products / Services / Brands / Solutions	84%	70%	2.767	0.096
Investor relations / Financial information / Shareholders	74%	60%	2.216	0.137
News center / Media center / Press	70%	68%	0.047	0.829
Careers / People / Jobs / Join us / Recruitment	60%	46%	1.967	0.161
Social Responsibility / Our environment / Community / Corporate citizenship / Good works	44%	32%	1.528	0.216
Option(s) to view site in languages other than English	56%	52%	0.161	0.688

Significant at the 0.1 level

Table 3: Comparison of representation of multinationality of top firms from developed and developing world

Dimension	Reported on homepages of:		Pearson Chi-square	
	Firms from developed countries	Firms from developing countries	Value	Asymp. Sig. (2-sided)
Scope of operations explicitly indicated, e.g. "Operating in more than 100 countries"	76%	40%	13.300	0.000
Scope of operations suggested in general terms, e.g. "Pan-Asian Multinational"	66%	38%	7.853	0.005
International relationships like business partners, alliances, or contracts mentioned (e.g. sponsorship of BMW, supplier for HP)	20%	40%	4.762	0.029
International recognition, like awards or certifications mentioned (e.g. Fortune Global 500 or ISO)	2%	12%	3.840	0.050

Significant at the 0.05 level

Significant at the 0.01 level

Table 4: Comparison of representation of nationality of top firms from developed and developing world

Dimension	Reported on homepages of:		Pearson Chi-square	
	Firms from developed countries (without state ties)	Firms from developing countries (without state ties)	Value	Asymp. Sig. (2-sided)
National origin explicitly indicated, e.g. "Founded in Italy in 19.."	14% (5%)	42% (36%)	9.722 (11.819)	0.002 (0.001)
National origin suggested, e.g. through location of headquarters, domain name not ending in .com but alternative (e.g. .de or .za) or listing on a regional (e.g. Taiwanese) stock exchange	38% (44%)	38% (33%)	0 (0.857)	1.000 (0.355)

Significant at the 0.01 level

Table 5: Comparison of representation of ethnicity of people of top firms from developed and developing world

		Mean	Std. dev	t-test for equality of means			
				t-value	df	Sig.	Mean difference
% of images where ethnicity of subject can not be distinguished	Top MNCs (with no state ties)	20.57% (22%)	0.27 (0.27)	-0.228 (-0.238)	64 (45)	0.821 (0.813)	-0.016 (-0.022)
	Developing country MNCs (with no state ties)	22.24% (22.34%)	0.32 (0.38)				
% of images where subject is representative of the majority ethnic group of the region	Top MNCs (with no state links)	61.55% (54.44%)	0.40 (0.41)	2.210 (1.959)	64 (45)	0.031 (0.056)	0.221 (0.236)
	Developing country MNCs (with no state ties)	39.36%	0.41				
		30.83%	0.42				

Significant at the 0.1 level

Significant at the 0.05 level



Figure 1: Depiction of ethnic origins on websites

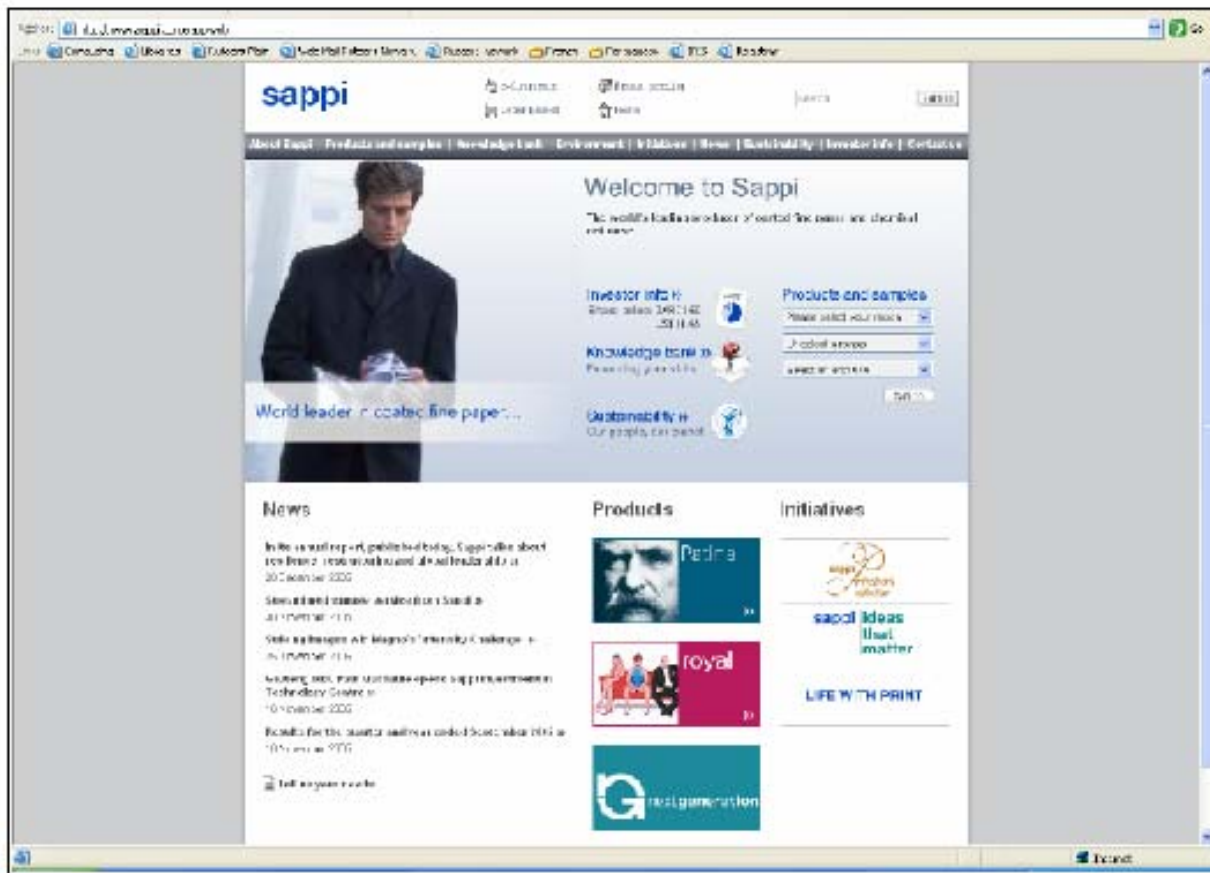


Figure 2: Homepage of Sappi



Figure 3: Changing images on the Sappi homepage

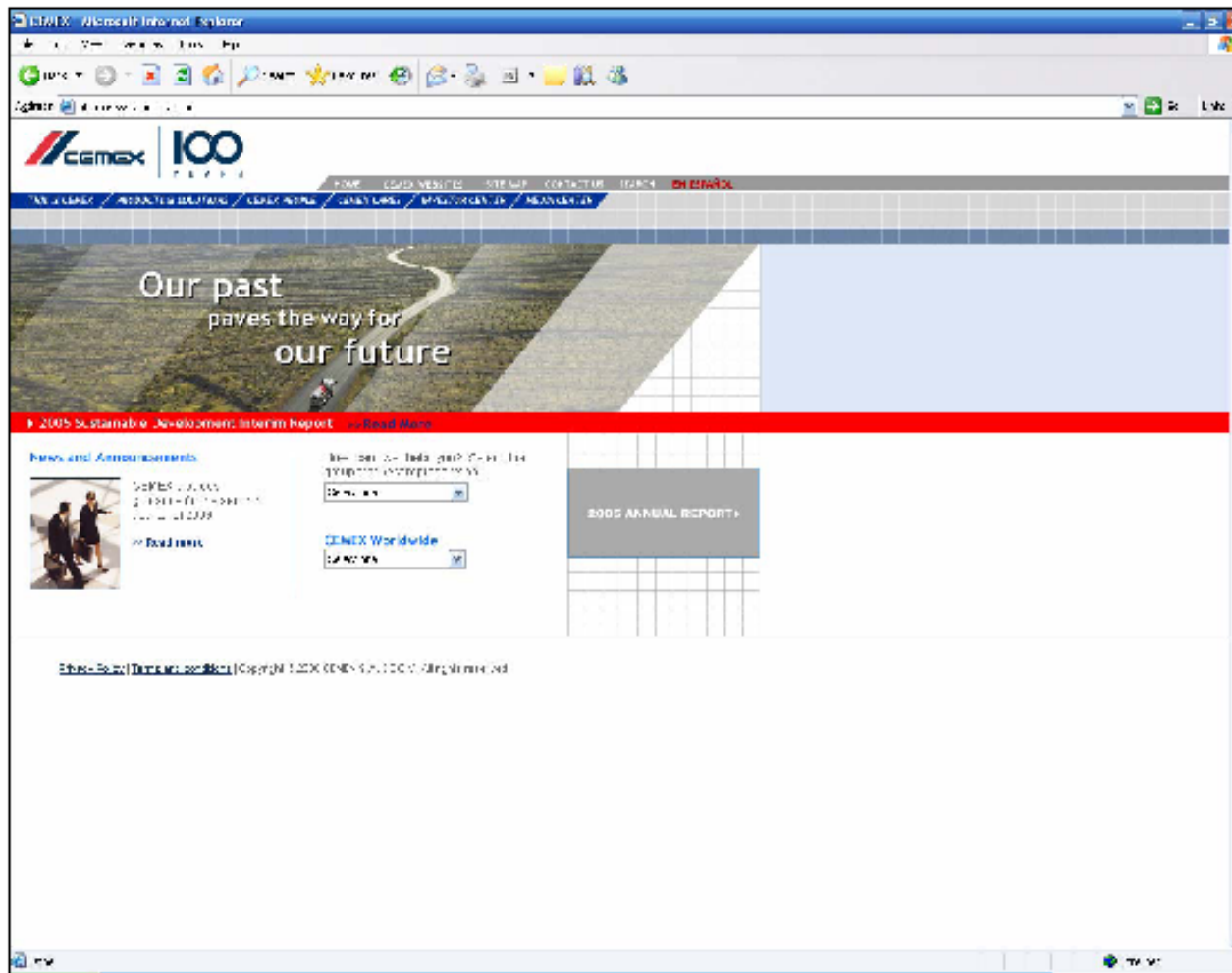


Figure 4: Homepage of Cemex

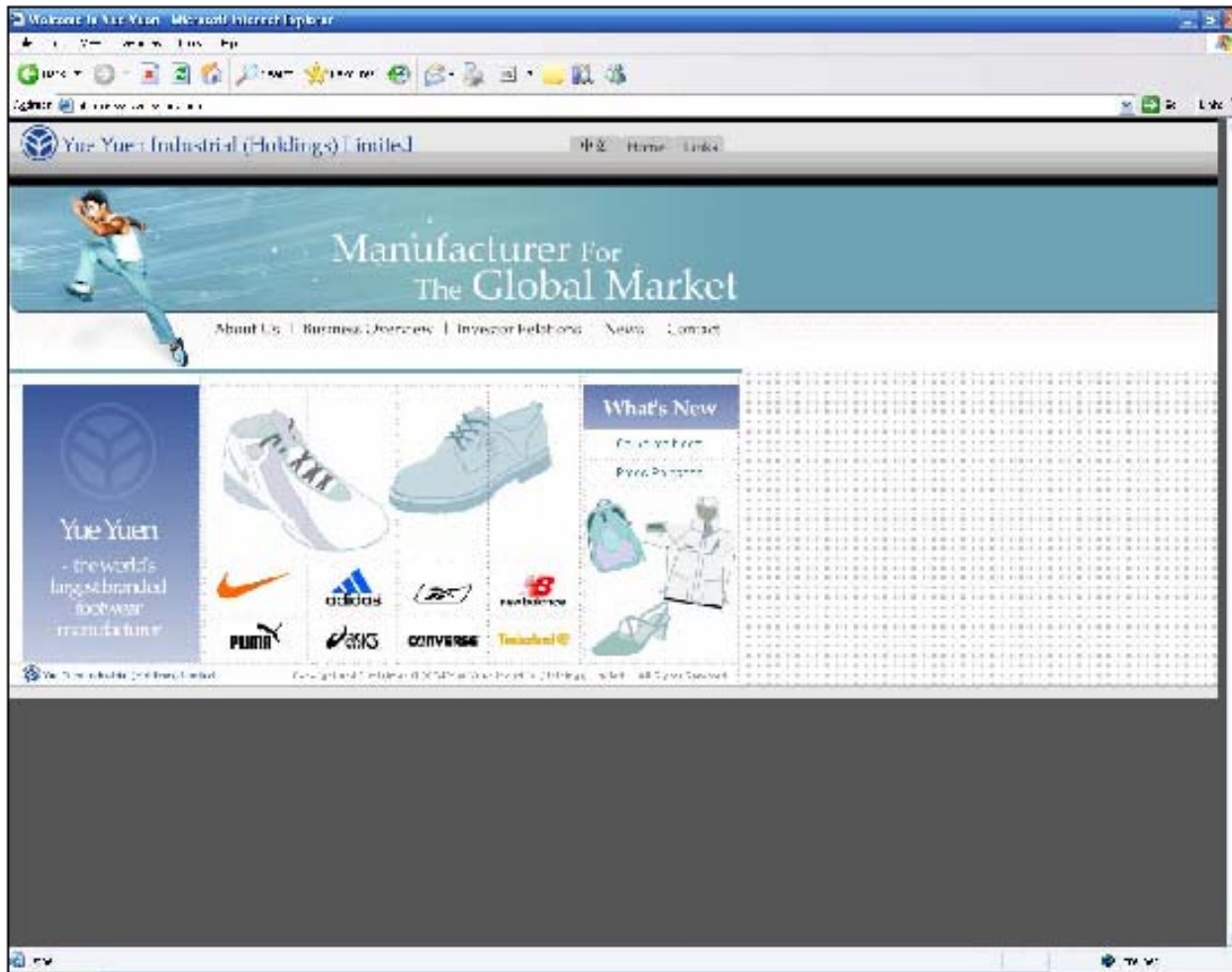


Figure 5: Homepage of Yue Yuen

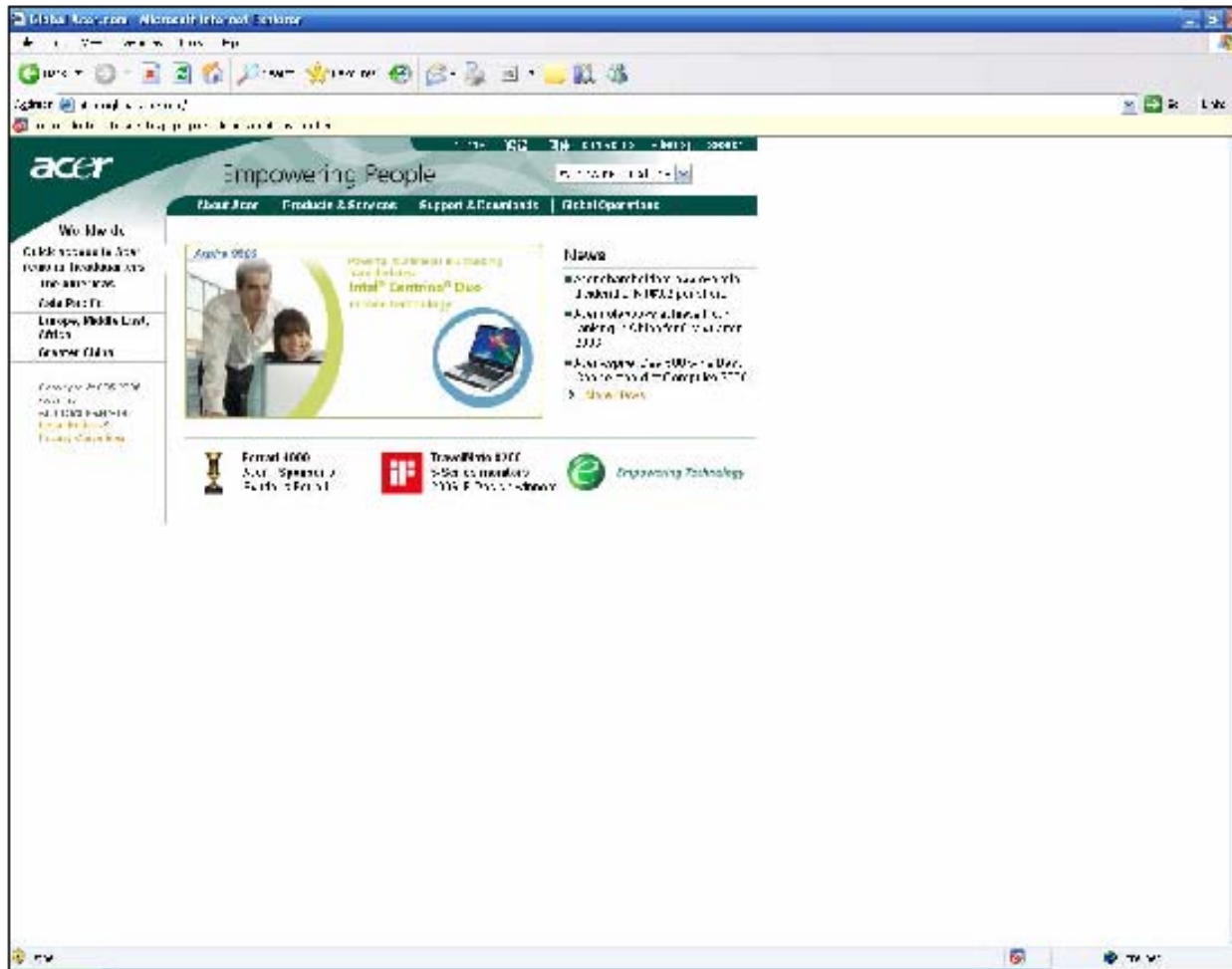


Figure 6: Homepage of Acer



Figure 7: Selection of changing images from Acer homepage