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BASCAP

Business Action to Stop
Counterfeiting and Piracy



Global Survey on Counterfeiting and Piracy



International Chamber of Commerce
The world business organization

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Survey findings report

29 January 2007

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The BASCAP Global Survey on Counterfeiting and Piracy and the Survey Findings Report were conducted by the International Chamber of Commerce in cooperation with the Cass Business School of the City University of London.

Principal Investigator: Professor Joseph Lampel, Cass Business School, City University, London; Associate Investigators: Dr. Ajay Bhalla, Cass Business School, City University, London; and Pushkar Jha, Business School, University of Newcastle.

The survey report is available on the ICC's website: www.iccwbo.org/bascap. For further information, contact Jeffrey Hardy, ICC BASCAP Coordinator: jhd@iccwbo.org

Executive summary

Overview

This report outlines key findings from the BASCAP Global Survey on Counterfeiting and Piracy. The main goal of the survey is to evaluate corporate perceptions of the degree to which countries protect – or fail to protect – intellectual property from the threat of piracy and counterfeiting. The additional goal of the survey is to develop a broader understanding of how corporate decisionmakers evaluate what we term the “intellectual property environment”, or “IP environment”: the set of legislative, enforcement, and public awareness dimensions that together make up the intellectual property system of a particular country.

This survey is the first in what is intended to be a series of annual surveys. The current survey is a snapshot based on a sample of 48 companies. Future surveys will enlarge the sample size, and crucially will also allow BASCAP to track change, for better or worse, in the IP environments of countries cited in the current survey.

Counterfeiting and piracy are among the biggest challenges facing business today. The problem, however, is particularly acute for firms that trade globally. These firms comprise the greater part of the survey population, providing first-hand country experience with counterfeiting and piracy, and thus are in a good position to provide an evaluation of the relative strengths and weaknesses of IP environments in different countries. Targeting large global traders has the added advantage of tapping the experience of companies with the resources needed to combat counterfeiting and piracy on a regular basis. Such direct engagement with the difficulties of enforcing intellectual property generates deeper understanding of the obstacles facing firms more generally. The experience of these large global traders therefore represents the most realistic on-the-ground assessment of an evolving situation.

Principal findings and interpretation

Below we present the principal findings and the interpretation of these findings. This interpretation puts the key findings into the wider context of piracy and counterfeiting in today's business environment. We reflect on key issues related to legislation, enforcement and public education that characterize the favourable or unfavourable IP environment in a country. The factors that impact business decisions on investing in a country are also considered in their wider context.

1. Of the 53 countries listed by respondents as having the *least favourable* IP environment, China and Russia are perceived to be the most serious offenders.

The singling out by a wide margin of China and Russia as countries with least favourable IP environments is consistent with other studies. In particular, our findings confirm similar conclusions by the European Commission survey of EU businesses, which identifies China as accounting for two-thirds of all counterfeit goods seized in the EU, with Russia, Ukraine, Chile and Turkey close behind.

Although countries at the top of the list of least favourable IP environment were singled out by virtue of their disproportionate share of piracy and counterfeiting, a review of the countries that make up the balance of the list – including Turkey, Taiwan, Indonesia, and Vietnam – provides a significant reminder that the problem is indeed worldwide and cannot be solved by focusing only on widely known problem areas. Notably, the four worst performers identified in the survey – China, Russia, India and Brazil – are four of the five so-called ‘BRICS’ countries.

Further support for the magnitude of the problem is provided by a part of the survey that focused on the direct experience of firms in countries in which they operated.

Respondents estimated that 50% percent of countries in which they operated lagged behind in providing legislation that properly enables criminal prosecution of IP infringement; about 63% of the countries did not adequately resource law enforcement agencies engaged in combating piracy and counterfeiting; and in about 42% of the countries in which responding firms operated the public had an unfavourable view of IP protection, viewing initiatives to improve IP protection as imposed from the outside by corporations and foreign governments.

- 2. The main factors contributing to a country’s being regarded as having a least favourable IP environment are: (a) the country’s unwillingness to fulfil its international IP obligations; and, (b) local media disregard for the importance of combating piracy and counterfeiting.**

- 3. Of the 29 countries listed as having the most favourable IP environments, the US, the UK, Germany and France are perceived to be the leaders when it comes to combating theft of intellectual property.**

Notably, the favourable ratings are concentrated on these top four countries, suggesting that these countries’ successful programs could serve as a basis for generating models to share with other countries. The mention of a long list of countries where the IP environment is perceived by companies to be favourable (Appendix 2) means that many countries have achieved at least some elements of creating an effective IP environment and suggests that further exploration and replication of these initial good practices could be extended within the country and could generate useful models to share with other countries.

- 4. Company rankings of the countries with most favourable IP environments are based primarily on: (a) effective role of the media in raising public awareness of the importance of combating piracy and counterfeiting; and, (b) strong public cooperation with enforcement agencies in combating piracy and counterfeiting.**

5. In a comparative analysis among factors contributing to perceptions of a country as having a 'most favourable' as opposed to a 'least favourable' intellectual property (IP) environment, the amount of resources a government commits to enforcement was a primary determining factor, followed by a clear government policy against piracy.

The survey is a 'snapshot' of the current IP environment in countries designated by respondents as having most and least favoured IP environments. More research is required to attain comprehensive understanding of the dynamics of IP environments as a system. In particular, comparative case studies of countries should be used to examine how IP environments evolve, which countries represent 'best models' of IP environment, and which have responded well to multilateral initiatives that target piracy and counterfeiting.

6. **On the whole respondents felt that legislation protecting IP is adequate even in countries with poor IP environments.**

This reinforces the finding that respondents saw the lack of enforcement, rather than legislation per se, as the crucial aspect of failure to protect IP in these countries. This suggests that in itself, further efforts to improve IP legislation are regarded as adding to existing regulations without delivering significant benefits. In the case of countries that are judged to have highly favourable IP environment this is not surprising: vigorous enforcement is clearly needed to complement strong existing legislation. What is surprising is the fact that the same perception applies to countries with poor IP environments.

Our interpretation of this finding points to the following factors. First, the finding may reflect a shift away from a decade that focused strongly on improving IP legislation to one that increasingly emphasizes compliance and enforcement. In other words, there is a trend in moving from the 'letter of the law' to implementing the "spirit of the law." Second, from a strategic perspective the finding may also reflect the possibility that corporations see time-consuming negotiations for additional legislation as affording countries with poor IP records the pretext for postponing compliance and enforcement until such legislation is in place.

7. **Allocation of more resources to enforcement is seen as by far the most effective way of government's utilization of additional resources.**

To assess how firms see the relative effectiveness of current efforts to combat piracy and counterfeiting, respondents were asked to allocate resources to following three areas: legislation, enforcement, and public information. Of the three, allocating more resources to enforcement is seen as by far the most effective way of utilizing additional resources, and by implication the area that should yield the most results for investment.

8. Private sector allocation of resources favours internal initiatives aimed at combating piracy and counterfeiting as opposed to allocating resources to initiatives that require reliance on external organizations.

Firms were asked to indicate in percentage terms how much they spent on the following areas: a) anti-counterfeiting technologies and use of product differentiation to reduce infringement; b) educating the public about counterfeiting and piracy, and c) funding local authorities to actively pursue counterfeiters and pirates. Resource allocation to the first area, i.e. technologies that combat counterfeiting and securing products against infringement, exceeded the other two areas significantly. This reflects a resource allocation favouring internal initiatives aimed at combating piracy and counterfeiting as opposed to allocating resources to initiatives that require reliance on external organizations. Understandably, responding firms have more confidence in the former than the latter. However, as the rest of our findings suggest, *allocating more resources to external initiatives, in particular aiding enforcement and educating the public, has considerable potential that has yet to be fully explored.*

9. Firms whose business relies on mass production demonstrate a greater preference for strengthening IP legislation than businesses that primarily produce in batch.

An interesting caveat to the preference for investment in enforcement, as opposed to working to increase the scope of legislation, is a difference detected between firms whose business relies on mass production (e.g. music CDs) and those whose business relies on batch production (e.g. aircraft). Firms whose business relies on mass production demonstrate a greater preference for strengthening IP legislation than businesses that primarily produce in batch. This preference is consistent with the greater revenues that counterfeit and pirate goods generate by mass production as opposed to what they might generate through (more difficult to copy and market) batch production. Greater revenues provide more incentives to expand piracy and counterfeiting, and *the preference for strengthening legislation is an indication of the desire for legal remedies that increase penalties on pirates and counterfeiters in proportion to their revenues.*

10. Firms see public education as an increasingly important method for combating counterfeiting and piracy.

In the case of most favourable countries, findings indicate that the media plays an important role in increasing public awareness about the need for IP protection, as well as informing the public of the consequences of infringement. These two factors also influence and catalyze other factors that contribute to a healthy IP environment and thus become important defining features of good IP environments. Furthermore, in the case of least favourable countries, we find that the role of media again shows up as a dominant factor. Here the implication is that *media apathy towards IP infringement tends to relegate IP issues to the margins of public discussions*, where they tend to resurface mostly when international pressure is brought to bear.

Media influence acts as an important catalyst that reinforces interaction among legislation, enforcement, and education. The more proactive the media in highlighting the importance of IP to strong economic activity, the more likely are legislative initiatives to mesh with enforcement, and the more likely is public education to feed into legislative willingness to tackle these issues.

11. Decisions to locate product development activities are closely linked to clear government policies that target piracy and counterfeiting in the host country.

As above, the same holds for technology transfer decisions, which are likewise linked to government policies against piracy and counterfeiting. But in addition, technology transfer decisions are also influenced by sufficient resourcing for enforcement and public cooperation in fighting piracy and counterfeiting. These additional factors may reflect the risks associated with technology transfer – specifically, the problems of containing technology ‘spillage’ and policing misappropriation of knowledge. In this area, public support for vigorous enforcement is particularly valuable if it helps to identify individuals who use their position to transfer technology illicitly, and singles out others who act as their collaborators.

12. Location of manufacturing units in a country also tends to be strongly linked with public cooperation with enforcement agencies.

This suggests a strong influence of widely reported instances of the ‘back door’ problem whereby authorized manufacturing facilities covertly produce pirated products and counterfeits for sale through private channels. The data also shows a link between public cooperation in controlling piracy and the impact of IP issues on sales and distribution decisions. The higher the incidence of illegal manufacturing, the more important public education becomes for communicating the implications of engaging in such activities at an individual and wider economic level.

13. Long-term damage to a country’s attractiveness as a location for high value-added economic activity outweighs perceived temporary economic benefits from piracy and counterfeiting.

The impact of a country’s IP policies, enforcement, and public cooperation on product development, technology transfer, and plant location constitute an important policy finding. Specifically, the finding suggests that long-term damage to a country’s attractiveness as a location for high value-added economic activity outweighs perceived temporary economic benefits from piracy and counterfeiting. This point should be urgently conveyed to policymakers and opinion leaders in countries with poor IP environment: Progressing to the ranks of advanced industrial economies is incompatible with an IP environment that deters inflows of committed capital and cutting-edge knowledge.

14. The IP challenge facing each industry is influenced by specific product and technological characteristics. Businesses where the IP content is embedded are more likely to see public education as an increasingly important method for combating counterfeiting and piracy.

The 48 companies surveyed belonged to approximately 27 industries. For purposes of statistical analysis the firms surveyed were divided into business categories based on (a) products and services; and, (b) business where intellectual property is 'embedded' in physical media that serves only to deliver IP content (e.g. music CDs) and 'contained' in products in a way that makes it difficult to separate from the physical media without destroying its intrinsic use value (e.g. branded sportswear).

The main finding of this part of the analysis is that businesses where the IP content is embedded are more likely to see public education as an increasingly important method for combating counterfeiting and piracy. Our interpretation of these findings is that the marketing of these goods has two characteristics that make them more amenable to public education: First, they are often sold openly as fakes. Second, consumers are concerned about their quality relative to their legitimate counterpart. Public education can target risk aversion by the public knowingly purchasing products that are of dubious quality. *This in turn suggests that public education based on recent behavioural theories of risk may prove useful in reducing the purchase of counterfeits and pirated goods.*

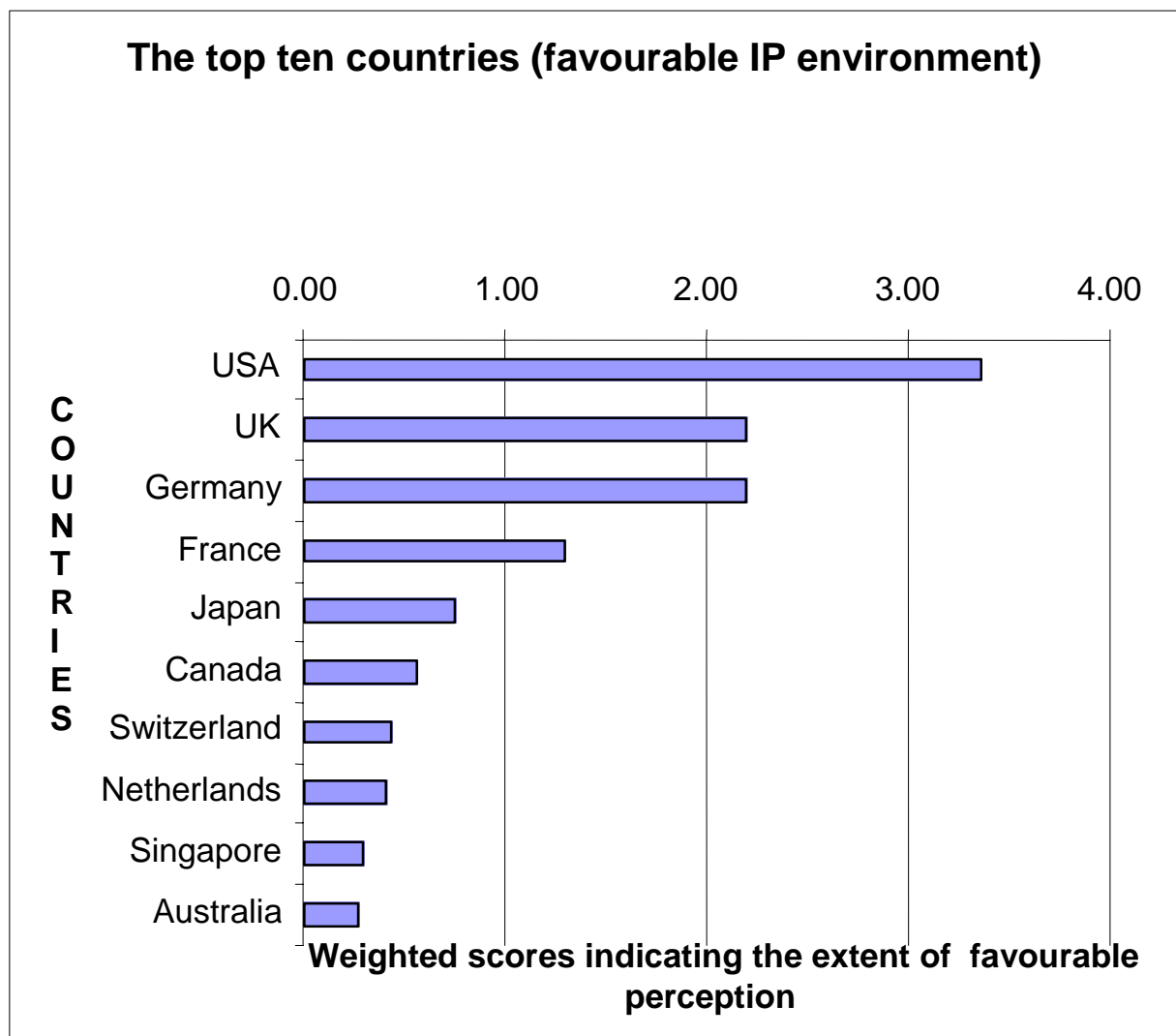
Survey analysis

1. Country rankings

The survey asked respondents to list the top five countries perceived to have the most favourable and least favourable IP environments. The responses were used to generate scores for countries listed based on the order in which they were reported by the respondents. These scores were subsequently aggregated for each country. Using the number of respondents in the sample as a baseline, these scores allowed us to generate rankings where the maximum possible standardized weighted score a country could get is 5. We also tabulated the number of times a country was cited in each of the two lists irrespective of the rank ordering by respondents.

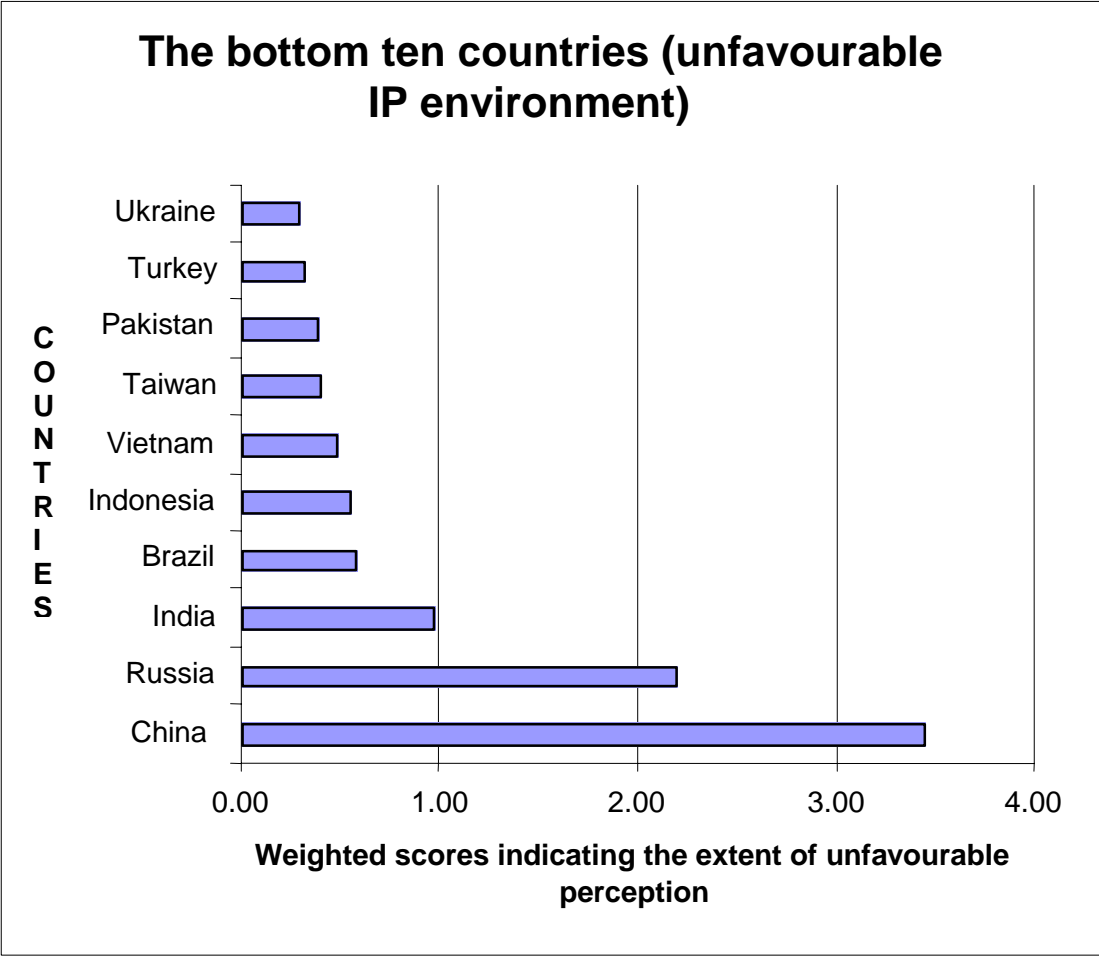
Appendix 2 presents a comprehensive list of countries that were rated as providing the most favourable IP environments. The US, the UK, Germany and France capture the top four spots. Other countries that make the top ten listing are Japan, Canada, Switzerland, Netherlands, Singapore and Australia.

Figure 1



Appendix 1 presents countries that were listed as having the least favourable IP environments. China and Russia are rated at the top as having the worst IP environment. India is rated as the third worst, while Brazil and Indonesia emerge as fourth and fifth worst offenders. Notably, the four worst performers identified in the survey – China, Russia, India and Brazil – are four of the five so-called ‘BRIC’ countries. Other countries that make the bottom ten listing are Indonesia, Vietnam, Taiwan, Pakistan, Turkey and Ukraine.

Figure 2



2. Perceptions of IP environment in all countries of operation

Asking firms to single out countries with the least and most favourable IP environments was useful for identifying conditions in countries that are regarded as worst offenders, and for singling out countries that represent best IP practice. Countries with least and most favourable IP environments represent the extreme ends of the distribution. We also sought to evaluate the overall global reality in which responding firms operate. Firms were therefore asked to divide countries of in which they operate into three categories – low, adequate, and high – for the following: legislation enabling criminal prosecution of IP infringement, adequate resourcing for law enforcement agencies engaged in combating piracy and counterfeiting, and consumer views of IP.

Figure 3

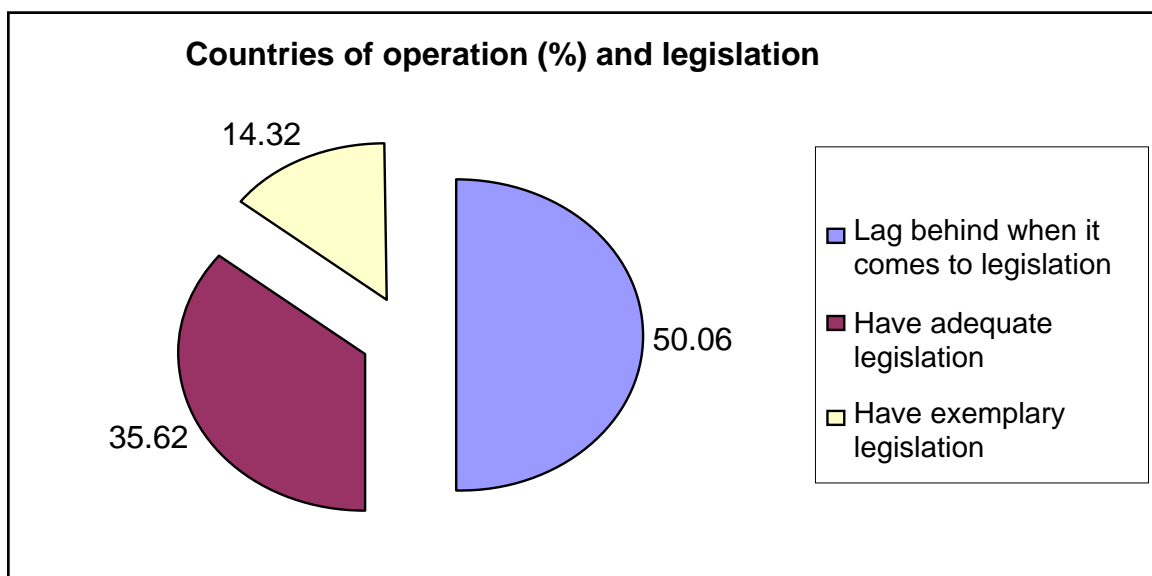


Figure 4

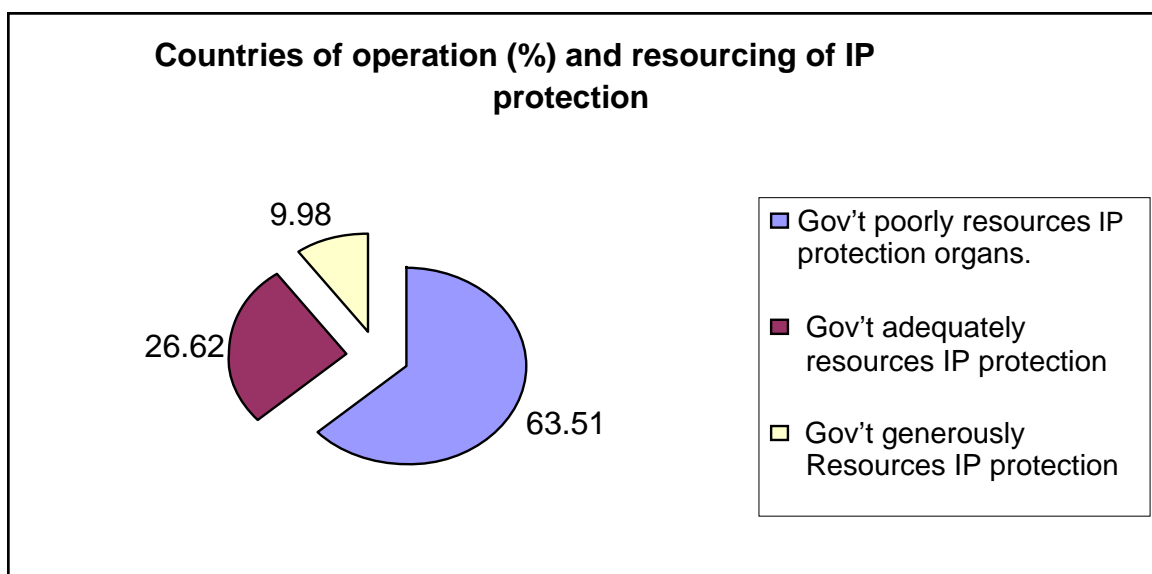
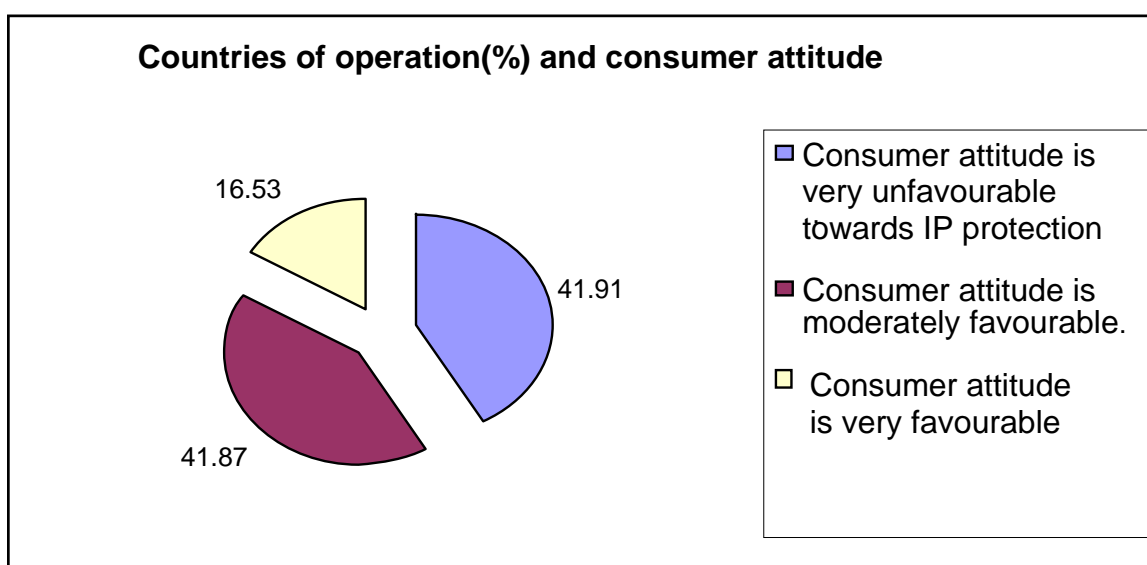


Figure 5



3. Factors impacting country rankings

The survey probed the reasons that companies give for listing countries as the best or worst from the point of view of counterfeiting and piracy. *This is important in as far as it is necessary to know which features of the IP environment play a crucial role in evaluating the damage done by counterfeiting and piracy, but also because selection criteria provide an indicator to policymakers when it comes to focusing resources on remedial action.*

We began the survey design with analysis of current country reports to determine which factors potentially play a role in shaping a country's IP environment. Based on this analysis, we generated a list of potential factors that may influence perception of IP environment. These factors are listed in Appendix 3. Using principal component analysis, we sought to identify the factors that play a dominant role in best/worse country selection. The following factors account for nearly 70 per cent of the influence in determining country favourability.

The two most important factors influencing selection of countries with **most favourable** environment were countries with high scores in the following:

- Cooperation of the public with IP enforcement agencies.
- Role of media in public education.

The three most important factors influencing selection of countries with **least favourable** environment were countries with low scores in the following:

- Extent to which a country met its obligations under international treaties.
- Cooperation of the public with IP enforcement agencies.
- Role of media in public education.

In a comparative analysis among factors contributing to perceptions of a country as having a 'most favourable' as opposed to a 'least favourable' intellectual property (IP) environment, the amount of resources a government commits to enforcement was a primary determining factor, followed by a clear government policy against piracy.

Analysis suggests that on the whole respondents felt that legislation protecting IP are adequate even in countries with poor IP environments. *This also reinforces the finding that respondents saw lack of enforcement, rather than legislation per se, as the crucial aspect of failure to protect IP in these countries.*

4. IP environment and business decisions

Counterfeiting and piracy impact not only the firms that depend on IP for their growth and survival, but also countries that want to develop knowledge-based and innovation-driven industries. It has long been suspected that an adverse IP environment influences foreign direct investment and business decisions by global firms. In this survey we have sought more precise data on this issue.


Based on the survey, we found the following results for the influence of IP environment on key business decisions:

1. Decisions to base product development in a given country tend to be linked with the extent to which the country has a clear policy against piracy. This means clear and unambiguous standards, and guidelines that stipulate with adequate precision conformance to IP protection.
2. Decisions relating to technology transfer to partner firms in a country are strongly linked with two factors: (a) public cooperation with enforcement agencies in that country; and (b) legislation providing sufficient resources to combat counterfeiting and piracy.
3. Decisions relating to placing of manufacturing units in a country are linked to the extent of cooperation enforcement agencies get from the public in a candidate country.
4. Decisions on procurement, product development, and locating of manufacturing units in a given country are linked to the extent to which local media contributes to better IP environment by raising public awareness about the importance of IP issues.

In Figure 6, we summarize these key linkages between factors and business decisions. The shaded cells indicate a significant statistical association.

Figure 6

Impact of IP considerations on decisions relating to...	...product development	...manufacturing investment	...technology transfer	...procurement
Public cooperation with enforcement				
Role of media				
Legislation providing sufficient resources				
Clear policy against counterfeiting and piracy				

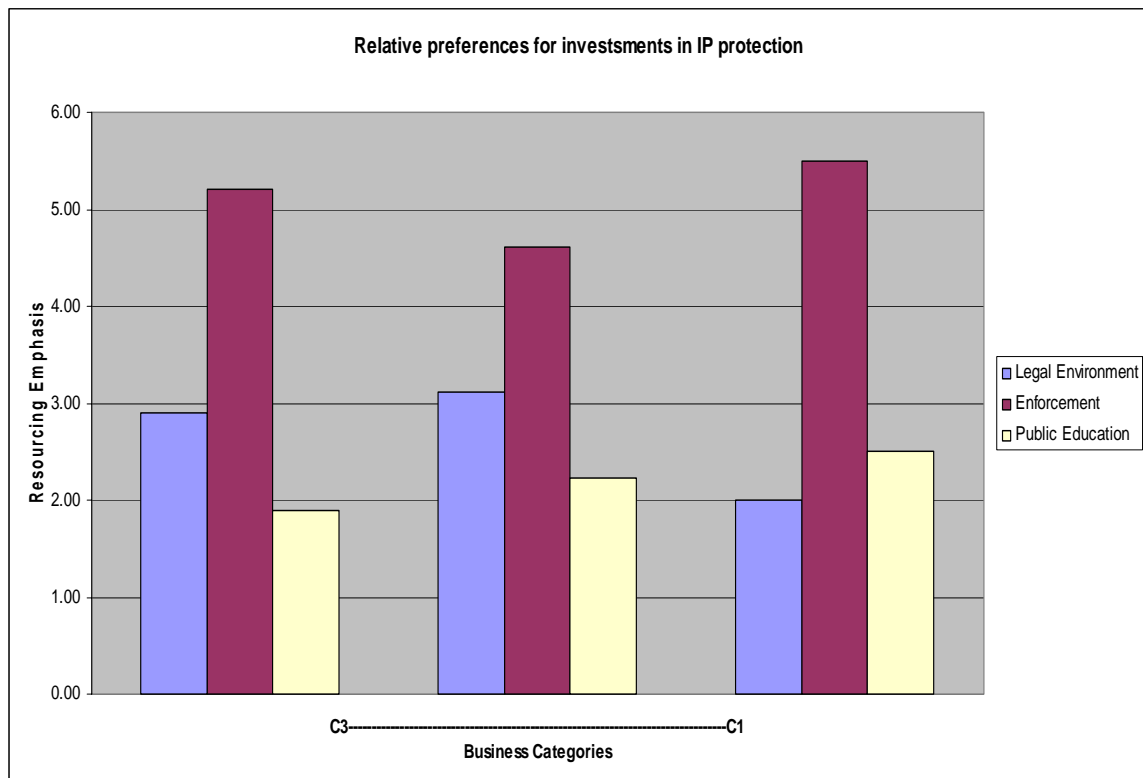
 = Significant association.

5. Combating counterfeiting and piracy

The survey also focused on factors that firms regard as important tools for combating counterfeiting and piracy. Analysis of all companies surveyed reveals the following attitudes regarding methods for combating counterfeiting and piracy:

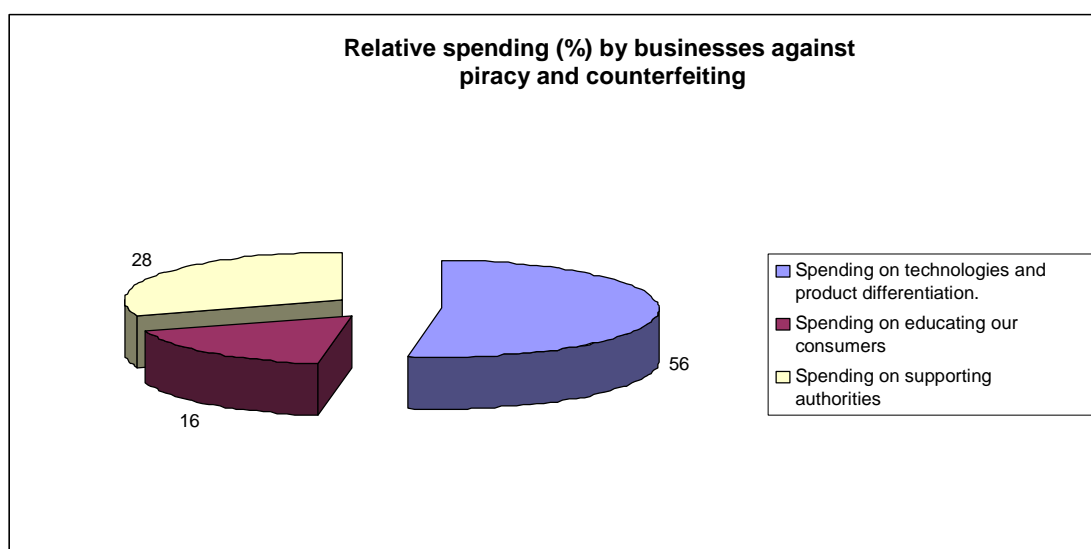
1. On the whole, firms consider allocating more resources to enforcement as a better strategic option than allocating more resources to legislation and education (results summarized in Figure 7).

Figure 7



2. Analysis of responses according to the number of business areas shows that the higher the number of business areas in which a firm operates, the greater its preference for strengthening IP legislation.
3. Companies in the survey were asked to allocate expenditures across the following three mechanisms for effective IP protection: (a) investing in anti-counterfeiting technologies and securing products against infringement primarily through product differentiation; (b) educating customers about the need for, and consequences of, IP infringement; and (c) supporting local authorities in locating and prosecuting IP infringement. Analysis shows that on the whole, companies expressed a preference for spending more on technologies and product differentiation as barriers to counterfeiting and piracy (results summarized in Figure 8). However, such spending on technologies and product differentiation is also very strongly linked with spending on public education related to IP issues by firms.

Figure 8



4. Firms whose business relies on mass production (e.g. music CDs) rather than batch production (e.g. aircraft) demonstrate a relatively higher preference for strengthening IP legislation.
5. Companies in the survey also provided data on their spending over the last year for two activities: (a) civil actions to counter counterfeiting and piracy; and, (b) educating consumers about counterfeiting and piracy. With the exception of a single company where a reduction in such spending has been reported for consumer education, all other companies in the sample reported either no change or an increase in spending for these activities over the last year.

A separate analysis of responses according to business categories reveals differences in attitudes when it comes to combating counterfeiting and piracy. Specifically, our analysis showed the following differences:

1. Firms concentrated in mass production (e.g. music) consider spending on IP- related public education to be a more effective means of combating counterfeiting and piracy than do firms concentrating on batch production or fast moving consumer goods (Appendix 5, Table 2a).
2. There is no difference between business categories when it comes to expenditure on pursuing civil actions to fight counterfeiting and piracy (Appendix 5, Table 2b).

6. Business categories and country rankings

The survey sought to identify and analyze the experience of IP environments by industry or business category. This is important for two main reasons: First, the IP challenge facing each industry is influenced by specific product and technological characteristics. Second, the impact of industry characteristics on IP environment should facilitate more precise remedial action.

The 48 companies that we surveyed belonged to approximately 27 industries. For purposes of statistical analysis, however, it was necessary to aggregate these industries into more inclusive categories. We used two criteria to construct the classification. The first is between products and services, and the second between products where intellectual property is 'embedded' in physical media that serves only to deliver IP content (e.g. music CDs), and products where the intellectual property is 'contained' by the product in a way that makes it difficult to separate from the physical media without destroying its intrinsic use value (e.g. branded sportswear).

The first distinction between products and services addresses the differences between consumption where intellectual property is provided via the mediation of human agents, for example legal services. The second distinction addresses a basic difference in the relationship between intellectual property and the products in which the intellectual property is contained. This difference is reflected in the technologies used to appropriate intellectual property for illicit use, and economics of mass reproduction of pirated goods.

Appendix 4 lists the classification of industries according to the three business categories: Category 1 for firms operating in industries where intellectual property is contained by the product, Category 2 for firms operating in industries where intellectual property is embedded in the product, and Category 3 for firms operating in industries where this criterion does not apply primarily because firms are providing services.

The classification of responding firms into three business categories allowed for statistical analysis of how different business types evaluated country IP environment. Our analysis shows the following results:

- Business category affiliation influences how firms evaluate countries with unfavourable IP environment (Appendix 5, Table 1a).
- Business category affiliations have no influence on how firms evaluate countries with favourable IP environment (Appendix 5, Table 1b).

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Appendices

Appendix 1

Ranking of countries with an UNFAVOURABLE IP environment: based on weighted scores from rankings given by respondents			
RANK	Country	Weighted scores	Frequency: irrespective of rank order
1	China	3.49	37
2	Russia	2.26	29
3	India	0.98	15
4	Brazil	0.59	10
5	Indonesia	0.57	8
6	Vietnam	0.50	7
7	Taiwan	0.41	6
8	Pakistan	0.39	6
9	Turkey	0.33	5
10	Ukraine	0.30	8
11	Romania	0.26	6
12	Paraguay	0.26	5
13	Canada	0.26	3
14	Thailand	0.26	6
15	Korea	0.26	4
16	Mexico	0.24	4
17	Poland	0.22	3
18	Nigeria	0.22	4
19	Sweden	0.17	1
20	Greece	0.15	4
21	Colombia	0.13	3
22	Saudi Arabia	0.13	2
23	Bangladesh	0.11	1
24	Sri Lanka	0.11	2
25	United Kingdom	0.11	2
26	Bulgaria	0.11	1
27	United States	0.11	2

28	Myanmar	0.11	1
29	Tanzania	0.09	1
30	Morocco	0.09	1
31	Portugal	0.09	1
32	Iraq	0.09	1
33	Libya	0.09	1
34	Philippines	0.07	1
35	Kazakhstan	0.07	2
36	UAE	0.07	1
37	Italy	0.07	1
38	Spain	0.07	2
39	Argentina	0.07	1
40	Iran	0.07	3
41	Hungary	0.04	1
42	Belize	0.04	1
43	Israel	0.04	1
44	Ghana	0.04	1
45	South Africa	0.04	1
46	Angola	0.04	1
47	Kenya	0.02	1
48	Albania	0.02	1
49	Tunisia	0.02	1
50	Azerbaijan	0.02	1
51	Lithuania	0.02	1
52	Guatemala	0.02	1
53	Serbia	0.02	1

Appendix 2

Ranking of countries with a <u>FAVOURABLE</u> IP environment: based on weighted scores from rankings given by respondents			
RANK	Country	Weighted scores	Frequency: irrespective of rank order
1	United States	3.40	42
2	United Kingdom	2.23	34
3	Germany	2.23	29
4	France	1.30	22
5	Japan	0.76	15
6	Canada	0.57	12
7	Switzerland	0.43	7
8	Netherlands	0.41	7
9	Singapore	0.30	4
10	Australia	0.28	8
11	Denmark	0.24	5
12	Austria	0.24	3
13	Italy	0.20	3
14	Spain	0.17	4
15	Hong Kong	0.13	3
16	New Zealand	0.11	2
17	UAE	0.09	2
18	Sweden	0.09	1
19	Ireland	0.09	2
20	Russia	0.07	1
21	Korea	0.07	2
22	Rwanda	0.07	1
23	Benelux	0.07	1
24	Poland	0.07	1
25	Holland	0.07	1
26	Luxembourg	0.04	1
27	Norway	0.04	2
28	Israel	0.04	1
29	Belgium	0.04	1

Appendix 3

Factors determining perceptions of favourable vs. unfavourable IP environment

1. Government policy against piracy is unambiguous: It lays down clear standards of conformance and precise guidelines.
2. Enforcement authorities are backed up by legislation.
3. The IP-related legislation fully reflects the obligations under international treaties.
4. The media plays a significant role in public education / understanding of IP rights and protection.
5. The public cooperates with enforcement by reporting infringements to the appropriate authorities.
6. Legislation provides sufficient, enabling resources (e.g. budget, manpower) for effective IP enforcement by government agencies (e.g. regulatory, border control, adjudication).
7. Legislation has kept pace with different forms of IP infringement (e.g. both physical and virtual-internet enabled).
8. Legislation provides for deterrent fines for IP infringement.
9. The judicial process for dealing with IP theft is transparent and fair.
10. Criminal prosecution of IP infringement is swift.
11. The mechanism for launching civil cases against IP infringers is accessible and cost-effective.
12. Civil actions proceed quickly and effectively.
13. Enforcement authorities are adequately resourced.

Appendix 4

Classification of businesses based on coupling of intellectual property with products : 1: Loosely coupled to 3: Tightly coupled	
Business/ Industry	Classification
Automotive	2
Ceramics and home interior	2
Chemicals, plastics, electronics, bio materials, coatings, packaging	2
Commercial finance, consumer finance	2
Confectionary	2
Education: publications	1
Electronics and telecommunication products	2
Fast moving consumers goods	2
Filmed entertainment	1
Food & beverage	2
Household goods	2
Legal services	3
Media and information society services	1
Media/entertainment	1
Music industry	1
Networking and consumer products	2
Packaging, consumer goods, trading and distribution	2
Pharmaceutical and healthcare	2
Port services, bulk storage, personal care, manufacturing, marketing and distribution.	2
Product safety testing	3
Professional advisory services	3
Retail	2
Software	1
Sports products: footwear, apparel, equipment; leisure footwear and accessories	2
Tax, arbitration, mediation and litigation	3
Tobacco	2

Appendix 5: Tables

Table 1a: ANOVA: Countries with an unfavourable IP environment - groups based on business types: category 3 = C3, category 2 = C2; category 1 = C1 [Statistically significant result]

ANOVA						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
C3	5	16.22	3.24	0.30		
C2	31	59.82	1.93	2.02		
C1	11	30.11	2.74	1.11		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	10.73	2	5.36	3.24	0.05	3.21
Within Groups	72.95	44	1.66			
Total	83.68	47				

Table 1b: ANOVA: Countries with a favourable IP environment - groups based on business types: category 3 = C3, category 2 = C2; category 1 = C1 [Statistically NOT significant-inconclusive]

ANOVA						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
C3	5	11.93	2.39	2.02		
C2	31	77.72	2.51	1.25		
C1	11	34.3	3.12	0.87		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	3.39	2	1.69	1.37	0.26	3.21
Within Groups	54.20	44	1.23			

Total	57.59	47				
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Table 2a: ANOVA: Increase in spending on customer education between groups based on business categories [Statistically significant result]

ANOVA: Single Factor						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
C3 & C2	36	82	2.28	0.26		
C1	11	30	2.73	0.22		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1.70	1	1.70	6.72	0.01	4.06
Within Groups	11.40	45	0.25			
Total	13.11	47				

Table 2b: ANOVA: Increase in spending on civil legal actions to fight counterfeiting and piracy between groups based on business categories [Statistically NOT significant-inconclusive]

ANOVA: Single Factor						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
C3 & C2	36	90	2.50	0.26		
C1	11	29	2.64	0.25		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.16	1	0.16	0.61	0.44	4.06
Within Groups	11.55	45	0.26			
Total	11.70	47				