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Copyright Industries in Arab Countries

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Summary: The paper describes and explains empirically the economic performance of four key copyright industries (the book publishing, music sound recording, film production and software industries) in five Arab countries (Morocco, Tunisia, Egypt, Jordan and Lebanon). Using the Porter (Diamond) model as its theoretical background, a survey was conducted in the years 2002-03 among 242 experts, covering firm representatives, industry and government experts. The results were incorporated into five national case studies. This paper synthesizes the results of those national reports, giving a comparative account of the performance of the four copyright industries in these Arab countries. The overall results of the study suggest that copyright industries in Arab countries are substantially underdeveloped, and there remains a great potential that should systematically be mobilized. A discussion of how this can be achieved is offered, based upon a well-designed and implemented process of upgrading and innovation in companies, industries and clusters related to copyright activities. Public policy can play in this process an important role.

1. INTRODUCTION

In general terms, copyright industries include all those industries that depend heavily on the Copyright and Related/Neighboring Rights Laws for maintaining exclusivity in the marketplace, and thereby help such industries to overcome/prevent unauthorized copying, duplication, or reproduction of their products and services. Copyright and related/neighboring rights are themselves a subset of intellectual property rights. Copyright law deals with the rights of intellectual creators; it protects the form of expression of ideas only, not the ideas themselves. The creativity protected by copyright law is creativity in the choice and arrangement of words, musical notes, colors, shapes and so on. Copyright law protects the owner of rights in literary and artistic works against those who "copy"-- that is, against those who take and use the form in which the original work was expressed by the author.

The types of subject matter which is protected under most national copyright laws includes literary works (such as books, newspapers, journals, novels, short stories, poems, dramatic works, etc), musical works, artistic works (drawings, paintings, sculptures, architectural works, etc.), maps and technical drawings, photographic works, motion pictures (cinematographic works), and computer programs. Many copyright laws also protect "works of applied art" (artistic jewelry, lamps, wallpaper, furniture, etc) and choreographic works.

In Economic terms, creative activities protected by Copyright and Related/Neighboring Rights Laws are also economic activities that generate income, create jobs and contribute to the foreign trade of their countries of origin. Their contribution to gross domestic product (GDP) can be substantial, as illustrated in the following figures for some selected countries: The share of copyright-protected activities in the value added of Argentina is 6.6% (1993), of Brazil 6.7% (1998), of Uruguay 6.0% (1977), of Paraguay 1.0% and of Chile 2.0% (see World Intellectual Property Organization (WIPO) and State University of Campinas (2002:9). Figures obtained for developed countries are as follows: Australia 3.1%; Germany 2.9%; Netherlands 4.5%; New Zealand 3.2%; Sweden 6.6%; UK 3.6%; USA 3.3% for the core industries and 5.8% for the total copyright industries (see Alikahn, 2001).

In Arab countries there has been a widespread impression that there has been a decline in creative and artistic activities which, in turn, has led to a decline in the output of copyright industries in those countries. Since there has been no systematic collection of data/statistics for verifying this impression, a systematic empirical study was needed, in order to provide scholars, business leaders and policy makers with a sound advice and assist them in making informed policy decisions concerning this important issue. It could have been, however, quite costly and time consuming to conduct such an analysis for all copyright industries and for all Arab countries. Therefore, a selective approach was required. This consisted of choosing four key copyright industries in five selected Arab countries (Morocco, Tunisia, Egypt, Jordan and

Lebanon) and thus conducting five national case studies (the final reports of these case studies are listed in the reference list)¹.

The present paper synthesizes the results of the national case studies and thereby gives a comparative account of the performance of the four copyright industries in the five selected Arab countries. The rest of the paper proceeds as follows: the next section describes the objectives of the study; section 3 outlines the methodology and section 4 summarizes the major results. The last section concludes with recommendations for public policy.

2. OBJECTIVES OF THE STUDY

The overall purpose of the project is to help estimate the economic importance of the copyright and related or neighboring rights industries in five Arab countries, as well as to identify the main problems that those industries are currently facing. It should therefore be seen as an important step towards fulfilling the following objectives:

- (a) To describe the economic performance of key copyright industries in Egypt, Jordan, Lebanon, Morocco and Tunisia, including the contribution of each category of industries to GDP, employment and foreign trade;
- (b) To understand the economic performance of those industries, the focus here being on qualitatively analyzing the major determinants (positive and negative factors) affecting the growth process of those industries; the determinants include cultural, economic, legal (notably IPR), social, technological and political factors;
- (c) To provide policymakers and business leaders in the Arab region and international development institutions with theoretically sound, evidence-based advice on the issues analyzed in the project.

3. METHODOLOGY OF THE STUDY

In order to achieve the objectives of the study, we have followed a standard approach used in applied economics. Inspired by the state of the art in this field, we first developed a common theoretical understanding of the questions at hand and then tried to find empirical evidence for those questions. Both steps are discussed in more detail below.

3.1 Theoretical Background

In order to illustrate the economic importance of copyright industries (first objective of the study), economists have so far used the following three indicators:

- Gross Added Value of all copyright industries as a percentage of total Gross Domestic Product (GDP);

¹ In January 2001 the World Intellectual Property Organization (WIPO) launched such a research project. Under the overall supervision of WIPO the author of this paper served as the international project coordinator. He coordinated the whole project, organized interaction among the participants, monitored the progress of the country studies and supervised the production and delivery of the various national reports. The author is grateful for financial support and for very useful comments.

- Share of employment in all copyright industries as a percentage of total national employment;
- Share of foreign trade in all copyright industries as a percentage of total national foreign trade.

However, the actual computation of the three economic indicators as applied to copyright industries - see, for instance, Miller & Strooberger (1993) and Siwek & Mosteller (1999) – came up against both methodological difficulties and the crucial problem of a lack of appropriate data.

The first methodological difficulty is that of defining exactly what industry should be considered a copyright industry. Secondly, what are the (upstream and downstream) boundaries of the copyright industries? In other words, what parts of the value-chain of the copyright industry should be included in the analysis? In publishing, for example, around the central activity of writing and organizing the production of publications there is the manufacture of paper and the retailing of books and periodicals. Should those peripheral activities also be included in the calculation of the economic importance of the publishing industry or not?

An empirical answer to these questions has been given in a study by the International Intellectual Property Alliance (IIPA). It distinguishes between “core” and “total” copyright industries. The “core” industries are those that create copyright works as their primary product. They include the motion picture industry (television, cinema and home video), the recording industry (records, tapes and CDs), the music publishing industry, the book, magazine and newspaper publishing industry, the computer software industry (including data processing, business applications and interactive entertainment on all platforms), legitimate theater, advertising and the radio, television and cable broadcasting industries. The “total” copyright industries encompass both the “core” industries and portions of many other industries that create, distribute or depend on copyright works. Examples are the retail trade (a portion of which involves the sale of video and audio material and books, for example), the doll and toy industry and computer manufacture (see, for instance, the 2002 IIPA Report compiled and edited by Siwek, 2002).

A third methodological problem is that the number of copyright industries varies over time. The computer software industry, for example, has been an important component of all recent studies, but was mentioned only as a secondary feature in some earlier studies. Comparisons of the economic importance of copyright industries at different times and between different countries are therefore difficult to make.

Last but not least, the problem of availability of reliable data, especially in developing countries such as the Arab countries, has to be emphasized (for more country-specific and industry-specific data problems the interested reader is advised to look at the national case studies).

A few empirical studies on the economic importance of copyright industries have been conducted in a number of countries on the basis of the methods briefly discussed above. They all had to find a solution to the difficulties and problems mentioned (for a survey of some of the studies, see Silberston 1998 and Alikhan 2001). For the USA, for example, the IIPA has been regularly publishing studies on the economic importance of copyright industries. For the MERCOSUR countries (Argentina, Brazil, Paraguay and Uruguay) and Chile, WIPO and the

State University of Campinas (Argentina) have for the first time conducted a joint study on the economic importance of copyright industries. Some results of that study are used for comparative purposes (see introduction).

With regard to the second objective of the study - understanding the factors that affect the economic performance of copyright industries in five Arab countries -, we have chosen a theoretical background based on a model (the Diamond Paradigm) developed and used by Michael E. Porter of Harvard University (see Porter 1990), which is itself derived from the structure-conduct-performance (SCP) paradigm in economics (Bain 1956). According to this model, the economic performance (or competitive advantage) of any industry is affected by the following four major forces:

- Production factor conditions;
- Demand conditions;
- Related and supporting industries;
- Corporate strategy, structure and rivalry.

Production factors include basic inputs such as land, labor, capital, infrastructure, natural resources, scientific knowledge, etc. In addition to these general-purpose factors Porter emphasized the need for specialized inputs that include highly specialized pools of skills, applied technology, infrastructure and even sources of capital that are tailored to the actual needs of particular industries. These specialized factors are not natural endowments; firms and governments create them. Their presence or absence in an industry is critical to its economic performance.

The second determinant of competitiveness is demand conditions. They include the contribution of both the size and the character of the home-market demand to the industry's product or service. National and international success grows out of having local customers who are among the most sophisticated and demanding in the world for products and services. Size, while important, is nevertheless less crucial than character. Sophisticated, demanding local buyers provide a window on advanced customers' needs; they prevail on local firms to meet high standards in terms of product quality, features and service. By meeting such demands local companies often gain a competitive advantage in foreign markets.

The presence or absence of suppliers and related industries that are internationally competitive is the third point of the Porter Diamond. A firm may not need local suppliers for all of its inputs, but it clearly benefits from having a critical mass of competitive suppliers of specialized components, machinery and services nearby. Far more significant for competitive advantage than mere access, says Porter, is the advantage that home-based suppliers provide in terms of innovation and upgrading based on proximity and close working relationships. Suppliers and end-users located close to each other can take advantage of quick and constant information flow, joint work on improvements and mutual motivation to progress. In addition to supplier industries, home-based competitors in related industries, or industries with similar skills, technologies or customers provide similar benefits: information flow, technology interchange and opportunities for sharing, which in turn increase the rate of innovation and upgrading.

The fourth determinant of performance and competitive advantage and the fourth point of the Porter Diamond is corporate strategy, structure and rivalry. These determinants encompass the conditions in a country that govern how companies are created, organized and

managed, as well as the nature of domestic rivalry. According to Porter, intense local rivalry is one of the most significant pressures on companies to innovate and upgrade.

The four determinants of the diamond – production factor conditions; demand conditions; related and supporting industries; corporate strategy, structure and rivalry – shape the environment for competing in particular industries. The determinants themselves are subject to the influence of two other variables: (1) government and (2) chance. It would be tempting, as Porter has argued, to regard government as a fifth determinant, especially because its role is so prominent in most discussions on competitiveness. Yet this would be wrong: government is best seen not as independent determinant of competitiveness but as an agent that makes its presence felt through the four determinants of the diamond. The other outside influence on the diamond is chance. Such events as major technological discontinuities and significant shifts in key factor costs such as energy, not to mention wars and other massive economic and political dislocations, alter conditions in the diamond and can cancel out the advantages of entrenched competitors. While chance events may make for shifts in competitive advantage in an industry, the attributes of local environment determine what nation, state or city exploits them. The locality with the most favorable diamond will be the most likely to convert chance events into competitive advantage.

Another point Porter emphasizes a great deal is that the four determinants of competitiveness constitute a dynamic system that is as important as its parts – or perhaps more so. The effect of one part of the diamond on competitive advantage depends on the state of the others. Serious weakness in any one determinant will hamper an industry's potential for advancement. The four determinants are thus self-reinforcing. In sum, the system (diamond) can work both as a virtuous and as a vicious circle of mutually supporting forces at industry level.

The last point in the Porter model that should be mentioned here is the relationship between the diamond and the building of clusters. On the basis of numerous industry case studies, Porter observes that a firm's ability to perform and upgrade continuously is strongly influenced by its proximity to advantages in the diamond. Having capable rivals, suppliers, sophisticated customers and providers of specialized factors nearby ensures more rapid information flow, more fluid working relationships and greater pressure to perform. Such dynamics lead to the formation of clusters of nationally or internationally competitive industries (including at a regional level involving two or more countries). Clusters of industries that compete nationally and internationally are the driving force behind economic development in a nation or region; their mutually reinforcing character energizes performance, fosters upgrading, spawns new firms and new industries and stimulates demand for local industries.

3.2 Empirical Approach

With regard to the first objective of the study - estimating the economic importance of copyright industries - we have relied basically on facts and figures published by national and international institutions. Unfortunately, data on copyright industries from those sources are either not available or insufficient in the Arab countries under consideration. This is due to a number of factors: first, relevant economic data, if available, are highly aggregated (national accounts data), and cannot therefore be used for assessing the economic importance of copyright industries. Secondly, since the existing Standard Industrial Classification (SIC) used by national statistical agencies for collecting data at corporate and industry levels are

also highly aggregated (mostly at the three-digit level), they are not suitable for adequately analyzing the value chain of copyright industries. Thirdly, additional statistical sources (such as corporate and household surveys data) are not available in all five countries, and even if they are they use heterogeneous definitions, concepts, sampling methods, etc.

This last remark is unfortunately also true for the national research teams working within the present WIPO study. They have not, for instance, always used the same definitions, sampling methods etc. for their country studies. For example, while the Egyptian study considers the film industry exclusively in terms of the production of films, the Lebanese study looks also at the production of advertisements and video-clips, firms involved in the retail distribution of films and also schools and training institutions. There is a more complex problem in the Jordanian statistics: official statistics do not make a clear distinction between the audiovisual sector and music or other sound recording, either at the production level or regarding international trade. For a comparison of the similarities and differences between the industry studies in the five Arab countries, see Tables 1 & 2.

The consequences of these problems are first that we can say very little in quantitative terms about the economic importance of copyright industries in the selected Arab countries and secondly that, even if data are available at the national level, comparisons between the countries are very difficult to make, as we shall see below. Finally, since the present study analyzes a selected group of only four core industries, the results can only partly reflect the importance of the entire copyright sector in the economy, apart from which it is not appropriate to make international comparisons.

As for the second objective of the study - understanding the factors affecting the economic performance of copyright industries in five Arab countries - the research teams collected original qualitative and quantitative data themselves. For that purpose we developed a comprehensive questionnaire (88 items) based on the Porter model briefly described above. It covered all major aspects of the model and thus contained general questions on the firm (10), on the economic performance of firms (2), on supply conditions (13), on demand conditions (9), on related and supporting industries (13), on market structure and firm strategy (20), on government policies (13) and, lastly, concluding questions on the future expectations of firms in copyright industries (8). The questionnaire – its detailed structure can be found in Appendix A - was designed as a guide for face-to-face interviews for a basically exploratory analysis of the four copyright industries in the selected Arab countries.

Owing to the limited financial resources available, it was agreed that the survey would not cover a “representative” sample – in statistical terms - of all firms and experts in the five countries, but rather a limited number of “important” firms and experts in all four industries located in the five Arab countries. The national research teams were thus able to conduct 242 interviews not only with representatives of firms, but also with industry and government experts. Of those interviews, 15% were conducted in Morocco, 14% in Tunisia, 15% in Egypt, 25% in Jordan and 31% in Lebanon. In terms of industry coverage, 32% of the interviews were done in the book publishing industry, 17% in the music recording industry, 22% in the film industry and 29% in the software industry (for more detail see Table 2). The survey was conducted in the five countries in 2002 and 2003.

In addition to the quantitative limitations on the number of firms and experts interviewed, the national case studies – with the exception of Lebanon – do not focus much (if at all) on the opinions of creators, artists, actors, directors, musicians, etc., but almost

exclusively on those of firms involved either in the production or in the distribution of copyright goods and services, and seldom on firms operating in the whole value chain. The focus has largely been on the “core” industries and thus has not included (in most cases) distributors, retailers, etc. (parts of the “total” industries). In other words, important parts of the value chain in the four copyright industries are under-represented in the survey and analysis.

Last but not least, one important point should be kept in mind while reading and interpreting the results of those interviews given below: all the survey data used in this study were the product of subjective judgments based on imperfect information². In sum, from a methodological perspective the present study is an exploratory, primarily qualitative analysis of four copyright industries in five Arab countries.

4. MAJOR RESULTS

The purpose of this section is to present the main results concerning the two major objectives of the study: (1) estimating the economic importance of copyright industries and (2) understanding the factors affecting that performance. The emphasis will be more on the comparison of those results among the five Arab countries. The reader interested in the details of the individual countries is referred to the national country studies presented separately.³

4.1 Overall view

The economic importance of copyright industries is measured, as mentioned above, by three indicators: (1) Gross Added Value in relation to GDP; (2) share of national employment and (3) share of foreign trade (export and import). In the case of the five selected Arab countries Table 3 summarizes the major quantitative results.

With regard to the first indicator, Lebanon seems to have - in relative terms - the highest contributions from copyright industries to its GDP, followed by Jordan, Tunisia, Morocco and Egypt.

As for the second and third indicators, data are unfortunately not available for most of the countries in the study. For Lebanon and Jordan only, rough estimates suggest that 1.2 % of the overall labor force is employed by the four copyright industries in the former and less than 0.5% in the latter. As for the estimated contribution of the four copyright industries to foreign trade, data are available for Jordan only: 2.4% of all exports and 1.2% of all imports come from the copyright industries of this country.

Of all copyright industries, book publishing seems to be the most important in most Arab countries with the exception of Jordan and Egypt. Its contribution to GDP seems highest in Lebanon, followed by Tunisia, Morocco, Jordan and Egypt.

² See Bertrand and Mullainathan (2001) for a general discussion about problems related to subjective survey data

³ A word of warning: when reading and interpreting the figures given in this section, one should keep in mind all the methodological and statistical difficulties mentioned above.

The contribution of the music recording industry to GDP varies from country to country. Its contribution to GDP seems highest in Lebanon, followed by Morocco, Jordan, Tunisia and Egypt.

In most of the countries under consideration the film industry contributes less than 0.1% to GDP. The highest contribution is in Lebanon, followed by Jordan, Morocco, Tunisia and Egypt.

Of all the copyright industries, software is either the most important - in Egypt and Jordan - or the second most important – in Lebanon and Tunisia. Only in Morocco is it the least important.

4.2 Book Industry

The overall economic performance of book publishing varies from country to country. It has been seen as positive in Lebanon and Jordan, as negative in Tunisia and as very negative in Morocco (see Table 4).

The good economic performance of book publishing in Lebanon and Jordan can be explained basically by a combination of positive production factor conditions (labor in Jordan and capital in Lebanon), positive demand conditions (domestic in Jordan and foreign in Lebanon) and favorable interaction with the upstream and downstream industries. In contrast, the perceived adverse position of the book publishing industry in Morocco and Tunisia is due to poor production factor conditions (mainly lack of capital), weak support from peripheral industries (especially downstream firms) and insufficient government support (lack of demand stimulation).

The position of the Egyptian book publishing industry is mixed. On one hand the industry enjoys positive production factor and demand conditions, positive support from downstream industries and healthy domestic competition, but on the other hand it faces serious obstacles to its further development. There is for instance a lack of support from upstream industries, such as paper manufacturing or book and publishing equipment (printers, ink cartridges, etc.). These important ingredients are not produced locally, and must therefore be imported on terms that are not always beneficial (high tariffs and taxes). This situation indicates that the critical requisites for a local cluster of firms to operate in the Egyptian book publishing industry are missing.

In all countries the enforcement of IPRs in the book publishing industry is weak. Copyright protection is not widely used as a positive means of enhancing the economic performance of this industry.

4.3 Music Industry

The overall economic performance of the music recording industry also differs from country to country. It is considered positive in Egypt and Lebanon, negative in Morocco, very negative in Tunisia and unchanged (neutral) in Jordan (see Table 5).

The encouraging performance of this industry in Egypt and Lebanon can be understood as a result of a favorable combination of good production factor conditions (especially labor and human capital), demand conditions (especially the possibility of exporting to other

countries), adequate support from upstream and downstream industries and lively domestic competition. In both countries the performance of the music industry is due to private sector effort and not to government support. On the contrary, public policy is seen (especially in Egypt) as having an adverse effect on the music industry.

The poor economic performance of this industry in Morocco and Tunisia is attributed to unfavorable production factor conditions (lack of capital), adverse demand conditions (both domestic and foreign) and insufficient support from downstream industries (in Morocco) and upstream industries (in Tunisia). In neither country is public policy perceived as helping to mitigate those serious problems.

In all countries under consideration the enforcement of IPRs in the music recording industry is very weak. This seems to be seriously detrimental to the economic performance of that industry.

4.4 Film Industry

The overall economic performance of the film industry is considered positive in Lebanon, negative in Morocco and Tunisia and mixed in Egypt⁴ (see Table 6).

In Egypt experts have identified both positive and negative factors affecting the development of this industry. The positive include favorable production factor conditions, good demand conditions (especially the opportunities for export, especially to other Arab countries), adequate support from upstream and downstream industries and supportive public development of human resources and technology. On the other hand, competition (both domestic and foreign) and the role of public policy (especially with respect to infrastructure building, stimulation of demand and lack of IPR enforcement) are regarded as having an adverse effect on the development of this prestigious industry in Egypt.

In Morocco and Tunisia lack of capital, weak demand (both domestic and international), inadequate support from downstream firms, limited distribution channels, fierce foreign competition and insufficient public policy (especially the deficient infrastructure in Tunisia) are the major negative factors explaining the poor economic performance of this industry. That low performance has been recorded in spite of the availability of adequate labor and government efforts to develop human resources and technology.

In Lebanon there is hardly any film industry, and current output is very small (one or two films a year). This is due to a vicious circle of poor production factors (lack of finance and competent professionals), unfavorable demand conditions (lack of interest in locally produced films both inside and outside Lebanon) and strong foreign competition. Consequently there are practically no local supporting and related industries. Government support is weak. Corporate and expert expectations are understandably bleak for this industry.

⁴ In Jordan the research team reported on the audiovisual sector in general, as this country does not have a film industry.

In most of the countries in the study the enforcement of IPRs in the film industry is seen as weak. The impact of copyright protection on the economic development of the industry is perceived as negative.

4.5 Software Industry

Of all the copyright industries studied here, only the software industry has been unanimously seen as performing well or very well in all five Arab countries. Almost all factors of the Porter Diamond register positively. This optimistic view is not only true of the recent past development of the industry: it also holds for its future. Corporate expectations are good in all countries (see Table 7).

So, what explains this special case? It is basically the combined beneficial effect of major components of the Porter Diamond, such as good production factors (availability of finance and credit), sufficient demand (from both the private and public sectors), adequate support from upstream and downstream industries (ICT industry and others), strong domestic competition and deep involvement of public policy, coupled with international aid, both private and public (see for instance the case of Jordan).

The only dark area in this picture is the persistence of piracy and the illegal use of software in Arab countries, especially Lebanon and Morocco.⁵ As in other copyright industries, the enforcement of IPRs in the software industry remains weak.

5. RECOMMENDATIONS

The third objective of the present study, as already mentioned above, is to provide Arab policymakers, business leaders in the Arab region and international development institutions with theoretically sound, evidence-based advice on the issues of the copyright industry. On the basis of the evidence submitted in the Arab national case studies and on evidence from other countries we will be able to draw up some general recommendations. For industry and country-specific recommendations, the reader is referred to the national case studies presented separately.

In the light of the evidence that copyright industries in the Arab countries selected for this study have not yet achieved the level of development (in either absolute or relative terms) of both other developing and developed countries (see figures in the introduction), we can conclude that there is great potential, which should be systematically mobilized. This can only be achieved by a well-designed and implemented process of upgrading and innovation in companies, industries and clusters. Public policy can play an important part in this process; indeed it should play four fundamental parts in the process of development of the economy in general and of copyright industries in particular.

⁵ In Egypt, according to Ahmed Ghoneim, team leader of the Egyptian national study, “software development does not suffer from IPR problems.” However, software in general, which is normally imported from abroad, is still facing the problem of piracy (mainly due to its high price), although this problem has been lately “narrowed and scaled down” (see A. Ghoneim: e-mail dated July 14, 2003).

The first such part is that of improving the quality and availability of the generalized inputs that companies draw upon, such as educated human resources, physical and technological infrastructure and capital.

Secondly, government should encourage upgrading and innovation with the aid of rules, regulations and incentives. Through regulations, tax policies, the enforcement of IPR & antitrust laws and many other measures, governments influence the climate in which companies compete. That influence should be used to encourage investment and other determinants of economic performance.

Thirdly, government should leverage its investment in skills, research capabilities and infrastructure to facilitate the process by which all local clusters form and develop. Such investment feeds whole groups of firms and industries. Thinking in terms of clusters rather than industries also encourages firms to work closely with suppliers and customers.

Fourthly, and most subtly, government leaders should challenge local companies and people in their regions to raise their sights and strive for greater competitiveness. The ability of government to signal the future fosters economic upgrading.

Looking at these four government roles more closely, we can see that they are consistent with a modern view of the role of the State in the economy. They advocate neither a laissez-faire nor a strongly interventionist industrial policy. They operate in tandem with the Porter Diamond presented earlier (see Porter 1990). With reference to this model let us see what kinds of action policymakers in Arab countries should take in order to influence positively the different components (the dynamics) of the diamond as applied to their copyright industries.

(1) Policies affecting production factor conditions:

- Invest in human resources by building a strong basic education system for all citizens, thus eradicating illiteracy, by setting high educational standards, by supporting institutions that develop specialized skills and, last but not least, by creating incentives for company investment in training;
- Support science and technology by creating incentives for private R&D, backing research and technological infrastructure for crosscutting technologies and industries and promoting wide dissemination of basic scientific knowledge;
- Invest in physical infrastructure; the special needs of copyright industries should also be taken into consideration.

(2) Policies affecting demand conditions:

- Stimulate early demand;
- Act as a sophisticated buyer in purchasing;
- Use regulation to foster upgrading and innovation.

(3) Policies affecting related and supporting industries:

- Facilitate cluster development;
- Base regional policy on clusters.

(4) Policies affecting strategy, structure and rivalry:

- Introduce a capital allocation system that encourages investment;
- Promote local competition by deregulating the structure of industry and strictly enforcing antitrust policy and IPRs;
- Expand interregional and international trade and investment by opening markets, promoting exports and attracting appropriate foreign investment.

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Appendices

Appendix A: Structure of the Questionnaire

Section I. General questions on the firm

- Corporate name
- Field (s) of corporate activity (music, software, book publishing, audiovisual, etc.)
- Position in the value-chain of the industry (supply of inputs - author of book, software etc. - production, distribution, etc.)
- Position in the firm of person interviewed
- Date of foundation
- Number of employees in 2000/2001
- Capital in 2000/2001
- Volume of physical output 2000/2001
- Volume of sales 2000/2001 (in national currency)
- Past evolution (growth rate) of sales over the past five years

Section II. Questions on the performance of firms

- Growth of sales in the last two years
- Growth of market share in the last two years
- Growth of number of employees in the last two years
- Growth of profits (after taxes) in the last two years
- Growth of cash flow in the last two years
- Growth of other indicators (specify) in the last two years
- Overall performance in the last two years

Section III. Questions on supply conditions

- Number, skills, training, etc. of employees in the firm
- Availability, structure and sources of financing
- Price/quality ratio of other inputs (electricity, postal services, telephone, domestic transport, port services, airport services, shipment)

Section IV. Questions on demand conditions

- Size and determinants of domestic demand
- Consumers targeted
- Character of domestic demand (demanding, anticipating foreign demand, etc.)
- Foreign demand (exports)

Section V. Questions on related and supporting industries

- Number of and cooperation with local suppliers
- Availability of specialized inputs
- Horizontal cooperation with other firms
- Contribution of supporting industries (insurance, legal services, banking, marketing, etc.)
- Contribution of public institutions (universities, R&D organizations, etc.)

Section VI. Questions on market structure and corporate strategy

- Market structure (number of firms, etc.)
- Intensity of domestic competition
- Market access and other market entry barriers
- Entry barriers for foreign competitors (foreign competition)
- Existence of an explicit business strategy (number of people involved, goals, strengths and weaknesses of the firm, etc.)
- Image of the firm (held by customers, competitors, etc.)
- Existence of an explicit IPR strategy

Section VII. Questions on government policies

- Government policies in human resource development (education, health, training, etc.)
- Government policies in science and technology
- Government policies in physical infrastructure (transport, shipment, utilities, etc.)
- Government as a buyer of cultural goods (demand stimulation)
- Government policies in industry-specific investment, building clusters, protecting IPRs, protecting competition, setting price controls, attracting foreign investments, etc.

Section VIII. Concluding questions: future expectations (sales, profits, employment, market, etc.)

Appendix B: Tables

Table 1: Industries covered by the study (X: covered by the national case study; O: not covered by the national case study)

	Morocco	Tunisia	Egypt	Jordan ^(*)	Lebanon
Motion Picture Industry <ul style="list-style-type: none"> • Television • Theatrical and • Home video 	X O X	O O O	O O O	X X X	O O O
Recording Industry <ul style="list-style-type: none"> • Records, • Tapes and • CDs 	X X X	X X X	X X X	X X X	X X X
Music Publishing Industry	X	O	X	X	X
Publishing Industry <ul style="list-style-type: none"> • Book, • Journal and • Newspaper 	X O O	X O O	X O O	X O O	X X X
Computer Software Industry, including <ul style="list-style-type: none"> • Data processing, • Business applications • Interactive entertainment on all platforms 	X X X	X X O	X X O	X X X	X X O
Legitimate Theatre	O	O	O	O	O
Advertising	O	O	O	X	X
Broadcasting industries: <ul style="list-style-type: none"> • Radio • Television and • Cable 	O O O	O O O	O O O	X X X	O X X
Other industries (specify) <ul style="list-style-type: none"> • Film production • Film distribution 		X X	X X		Printing, Live shows, Concerts, Festivals Schools and Training Institutions

* For Jordan: since there is no film industry in this country, the Jordanian research team examined the audiovisual sector instead. In addition, owing to overlaps and minute size, Advertising has been combined with Radio, TV and Cable broadcasting.

Table 2: Number of Interviews for the Four Copyright Industries of Arab Countries

	Morocco	Tunisia	Egypt	Jordan*	Lebanon	Total	
Book							
• Firms	16	09	07	09	12	53	
• Experts	00	01	02	06	16	25	
Total	16	10	09	15	28	78	32%
Music							
• Firms	04	04	03	05	03	19	
• Experts	05	01	01	07	09	23	
Total	09	05	04	12	12	42	17%
Film*							
• Firms	05	09	10	10	04	38	
• Experts	01	00	02	02	10	15	
Total	06	09	12	12	14	53	22%
Software							
• Firms	04	08	10	15	08	45	
• Experts	02	01	02	06	13	24	
Total	06	09	12	21	21	69	29%
Total	37	33	37	60	75	242	100%
	15%	14%	15%	25%	31%	100%	

* For Jordan: since there is no film industry in this country, the Jordanian research team examined the audiovisual sector instead.

Table 3: Economic Importance of the Four Copyright Industries in Selected Arab Countries

	Morocco (1999)	Tunisia (2000)	Egypt (2000/01)	Jordan (2000)	Lebanon (1999)
Share in GDP (in %)					
• Book	0.299	0.37	< 0.02*	0.2	0.843
• Music	0.161	0.02	< 0.02*	<< 0.1	0.216
• Film	0.045	0.09	< 0.02*	< 0.1	0.108
• Software	0.030	0.16	< 0.05**	0.4	0.451
Total	0.534	0.64	< 0.1	0.7	1.618
Share in Employment (in %)					
• Book	n.a.	n.a.	n.a.	0.1	0.79
• Music	n.a.	n.a.	n.a.	<< 0.1	0.19
• Film	n.a.	0.2 ^(a)	n.a.	< 0.1	0.12
• Software	n.a.	1.2 ^(b)	n.a.	0.2	0.13
Total	n.a.	n.a.	n.a.	< 0.5	1.22
Share in Exports and Imports (in %)	in X in M	in X in M	in X in M	in X in M	in X in M
• Book	n.a.	0.04 ^(c) 0.5 ^(c)	n.a.	0.6 0.2	3.36 0.39
• Music	n.a.	0.06 ^(d) 0.03	n.a.	0.1 0.1	n.a.
• Film	n.a.	n.a. n.a.	n.a.	0.4 0.2	n.a.
• Software	n.a.	0.3 ^(e) n.a.	n.a.	1.4 0.9	n.a.
Total	n.a.	n.a. n.a.	n.a.	2.4 1.2	n.a.

For Egypt: * of GNP (not GDP) in 2000; ** for 2001

For Tunisia:

(a): average of new jobs created over the period 1996-2001

(b): average of new jobs created over the period 1998-2001

(c): Printed material (year 2000)

(d): Recorded tapes (year 2000)

(e): Software only (year 2000)

For Jordan: since there is no film industry in this country, the Jordanian research team examined the audiovisual sector instead.

Table 4: Synthesis of Results for the Book Industry

Indicators	Countries				
	Morocco	Tunisia	Egypt	Jordan	Lebanon
Overall performance	--	-	(?)	+	+
Role of Supply					
Labor	+	0	+	+	-
Capital	--	-	+	0	+
Role of Demand					
Domestic demand	--	0	+	+	-
Export market	--	0	+	0	+
Role of Related Industries					
Upstream	-	+	-	+	+
Downstream	-	-	+	+	+
Other firms	-	-	0	0	0
Role of Market Structure					
Domestic competition and strategies	0	+	+	-	-
Foreign competition	0	0	0	0	-
Role of Public Policy					
Development of human resources and technology	+	+	-	-	--
Infrastructure and investment	+	+	-	-	--
Stimulation of demand	-	0	0	0	--
Enforcement of IPRs	--	0	-	0	-
Firms' Expectations	+	+	0	0	0

Note: 0 = None

- = Poor

-- = Very poor

+ = Good

++ = Very good

(?) = Cannot be determined

Table 5: Synthesis of Results for the Music Industry

Indicators	Countries				
	Morocco	Tunisia	Egypt	Jordan	Lebanon
Overall performance	-	--	+	0	+
Role of Supply					
Labor	-	+	++	+	-
Capital	-	--	+	0	+
Role of Demand					
Domestic demand	-	--	+	-	-
Export market	-	-	+	0	+
Role of Related Industries					
Upstream	+	-	+	0	+
Downstream	-	0	+	0	+
Other firms	0	0	0	0	0
Role of Market Structure					
Domestic competition and strategies	0	-	+	-	+
Foreign competition	-	0	0	0	+
Role of Public Policy					
Development of human resources and technology	-	+	-	-	+
Infrastructure and investment	-	0	-	-	-
Stimulation of demand	0	0	-	-	++
Enforcement of IPRs	--	--	-	--	--
Firms' Expectations	--	-	+	0	+

Note: 0 = None

- = Poor

-- = Very poor

+ = Good

++ = Very good

Table 6: Synthesis of Results for the Film Industry

Indicators	Countries				
	Morocco	Tunisia	Egypt	Jordan*	Lebanon
Overall performance	-	-	(?)	+	+
Role of Supply					
Labor	+	+	++	0	-
Capital	--	-	++	0	-
Role of Demand					
Domestic demand	--	-	+	-	-
Export market	--	0	++	+	-
Role of Related Industries					
Upstream	0	+	++	+	+
Downstream	--	0	+	+	+
Other firms	0	-	-	+	0
Role of Market Structure					
Domestic competition and strategies	0	0	-	0	+
Foreign competition	--	-	-	0	--
Role of Public Policy					
Development of human resources and technology	+	+	+	-	--
Infrastructure and investment	+	-	-	-	--
Stimulation of demand	0	-	-	0	--
Enforcement of IPRs	-	0	-	-	--
Firms' Expectations	+	-	0	+	-

Note: 0 = None

- = Poor

-- = Very poor

+ = Good

++ = Very good

(?) = Cannot be determined

* For Jordan: since there is no film industry in this country, the Jordanian research team examined the audiovisual sector instead.

Table 7: Synthesis of Results for the Software Industry

Indicators	Countries				
	Morocco	Tunisia	Egypt	Jordan	Lebanon
Overall performance	+	+	++	++	+
Role of Supply					
Labor	-	++	++	+	+
Capital	++	-	+	+	+
Role of Demand					
Domestic demand	+	+	+	-	-
Export market	+	+	+	+	+
Role of Related Industries					
Upstream	0	++	+	+	+
Downstream	+	0	+	+	+
Other firms	++	+	+	+	0
Role of Market Structure					
Domestic competition and strategies	+	+	+	-	+
Foreign competition	-	+	-	0	+
Role of Public Policy					
Development of human resources and technology	-	+	++	+	+
Infrastructure and investment	+	+	++	++	+
Stimulation of demand	0	+	++	+	-
Enforcement of IPRs	--	+	-	+	--
Firms' Expectations	++	+	+	+	+

Note: 0 = None

- = Poor

-- = Very poor

+ = Good

++ = Very good