

## **Committee on Development and Intellectual Property (CDIP)**

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### **SUMMARY OF THE STUDY ON UNDERSTANDING THE USE OF INDUSTRIAL DESIGN IN SOUTHEAST ASIAN COUNTRIES – THE CASE OF INDONESIA, THE PHILIPPINES AND THAILAND**

*prepared by the Secretariat*

1. The Annex to this document contains a summary of the study on Understanding the Use of Industrial Design in Southeast Asian Countries – the Case of Indonesia, the Philippines and Thailand, undertaken in the context of the Project on Intellectual Property and Socio Economic Development - Phase II (document CDIP/14/7).
2. The study has been prepared by the WIPO Secretariat in partnership with local expert consultants in each of the three countries: Dr. Yose Rizal Daimuri, Dandy Rafitrandi and Ilma Fadli at the Centre of Strategic International Studies (CSIS) in Indonesia; Dr. George Manzano, Mary Grace Agner and Nikka Pesa at the University of Asia and the Pacific (UA&P) in the Philippines; and Dr. Deunden Nikomborirak and Weerawan Paibunjitt-aree at the Thailand Development Research Institute (TDRI) in Thailand. It has been reviewed by Professor Myriam Mariani from Bocconi University in Milan, Italy.
3. *The CDIP is invited to take note of the information contained in the Annex to the present document.*

[Annex follows]

## Understanding the Use of Industrial Design in Southeast Asian Countries – the Case of Indonesia, the Philippines and Thailand

Few insights are available on how industrial design (ID) protection contributes to design innovation, business growth and economic development more broadly. WIPO statistics indicate that high income countries and China account for the great majority of ID applications worldwide.<sup>1</sup> Studies have shown that industrial designs often complement other forms of IP rights to support the commercialization of new products incorporating technological innovations. In addition, in certain “low-tech” consumer goods industries, design appeal can play an important role for firms in creating a differentiated consumer experience and thereby gaining an edge on competitors.<sup>2</sup>

In low- and other middle-income economies, the number of ID filings is frequently low; sometimes non-residents drive domestic filings. There are exceptions however. Certain middle-income countries in Southeast Asia – notably Indonesia, the Philippines, Thailand, and Viet Nam – show intensive use of the system with several thousand ID filings each year. In addition, local users account for most applications in those countries, in contrast to patents where non-residents constitute the largest user group.

To better understand the contribution of industrial design protection in a middle-income context, WIPO’s Economics and Statistics Division (ESD) initiated a regional study involving three Southeast Asian countries, namely Indonesia, the Philippines and Thailand.<sup>3</sup> At its core, the study sought to collect primary data on intellectual property (IP) use in middle-income countries by surveying local ID users in these three countries.

It is worthwhile noting that Thailand already participated in the first-phase of the umbrella CDIP project on IP and Socio-Economic Development.<sup>4</sup> The Philippines and Indonesia are new countries to this Project.

The study took 27 months to complete, from March 2016 to June 2018.

This document summarizes the implementation of the study and its main outcomes.

### Study Objectives

This objectives of the study were to better understand the circumstances and process of design innovation in the countries concerned, what motivated design innovators to seek this form of protection, how ID rights contributed to the appropriation of investments in design innovation, and what challenges applicants faced when using the ID system.

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<sup>1</sup> For a statistical overview, see WIPO document SCT/27/4 ADD available online at [http://www.wipo.int/meetings/en/doc\\_details.jsp?doc\\_id=237526](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=237526).

<sup>2</sup> See ROTHWELL, R. & GARDINER, P. 1983. The role of design in product and process change. *Design Studies*, 4, 161-169, CREUSEN, M. E. & SCHOORMANS, J. P. 2005. The different roles of product appearance in consumer choice. *Journal of Product Innovation Management*, 22, 63-81, VERYZER, R. W. & BORJA DE MOZOTA, B. 2005. The impact of user-oriented design on new product development: An examination of fundamental relationships. *Journal of Product Innovation Management*, 22, 128-143.

<sup>3</sup> These three countries were selected based on their ID filing volume and the availability of their historical unit-record data.

<sup>4</sup> See WIPO documents CDIP/12/INF/6 and CDIP/14/INF/4 available online at [http://www.wipo.int/meetings/en/doc\\_details.jsp?doc\\_id=253571](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=253571), and [http://www.wipo.int/meetings/en/doc\\_details.jsp?doc\\_id=286176](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=286176), respectively.

## Coordination and Execution

WIPO-ESD presented the study's objectives to the three countries during the 2015 WIPO General Assemblies. All three countries expressed their interest in participating in the study.

WIPO-ESD was the technical and organizational focal point for the study's implementation. It partnered with local expert consultants in each of the three countries to carry out the study's underlying survey: Dr. Yose Rizal Daimuri, Dandy Rafitrandi and Ilma Fadli at the Centre of Strategic International Studies (CSIS) in Indonesia; Dr. George Manzano, Mary Grace Agner and Nikka Pesa at the University of Asia and the Pacific (UA&P) in the Philippines; and Dr. Deunden Nikomborirak and Weerawan Paibunjitt-aree at the Thailand Development Research Institute (TDRI) in Thailand.

The Indonesian Directorate General of Intellectual Property (DGIP), the Intellectual Property Office of the Philippines (IPOP HL), and the Thai Department of Intellectual Property (DIP) provided strong and important support throughout the study's implementation. WIPO's Regional Bureau for Asia and the Pacific (ASPAC) provided support in liaising with the national IP offices.

Finally, the study was reviewed by Professor Myriam Mariani from Bocconi University in Milan, Italy. Dr. Mariani provided critical feedback on the design of the survey questionnaire, the analysis of the results, and the four study outputs.<sup>5</sup>

## Process and Methodological Design

The study was carried out in three stages. The first stage involved consultations with the relevant in-house WIPO colleagues in the Brands and Design Sector as well as the ASPAC bureau to formalize the direction of the study. At the same time, the Secretariat carried out desk research in designing the survey questionnaire for implementation in the three countries.

The study work formally started in March 2016 with back-to-back workshops and meetings held in the Philippines and Thailand. In each country, a half-day workshop was held to bring together relevant stakeholders of the ID system. The aim of the workshop was to receive comments and feedback on the survey questionnaire as well as the survey's implementation strategy. Participants of the workshop included ID applicants, design and trade associations, law firms specializing in ID applications, and designers. Bilateral meetings were also held with officials from the two IP offices, such as the ID examiners, to better understand the ID application processes.

The second stage of the study involved collecting unit-record ID application data to establish an empirical overview of the ID filings in the countries. Results from this exercise were used to identify the target ID applicants as well as their applications for the survey. In addition, the descriptive analysis of this exercise helped in identifying the potential bias of the responses obtained through the survey instrument.

The survey questionnaires were launched during the third stage of the study. The questionnaires were sent to ID applicants through their e-mail address extracted from the

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<sup>5</sup> Three separate national reports were produced for the DGIP, IPOP HL and DIP. In addition, a manual detailing how the survey instrument was designed and implemented was created to enable other researchers to run the same study in their countries. These four documents will be available for download on the WIPO-ESD website at: [http://www.wipo.int/econ\\_stat/en/economics/studies](http://www.wipo.int/econ_stat/en/economics/studies)

unit-record data obtained from the three IP offices. After two e-mail reminders were sent, hardcopies of the questionnaires were then sent to the remaining survey respondents at their mailing addresses as listed in their ID applications.

Thailand was the first country where the survey was rolled out, in March 2017. The survey was then launched in the Philippines in July and later in Indonesia in October of the same year.

Consultants in the three countries employed different strategies to get survey respondents to fill-in the questionnaire. In Thailand, the TDR team was able to call ID applicants to encourage their participation in the survey. In both the Philippines and Indonesia, the UA&P and CSIS teams each held an additional workshop, targeting the ID applicants identified for the survey, to encourage their response. The Indonesian team later deployed researchers to conduct face-to-face interviews with the ID applicants. These strategies had varying levels of success.

The table below provides a summary of the responses received. In total, 268 applicants submitted a partially or fully completed survey questionnaire. Those 268 applicants accounted for 512 ID applications in total. The ID survey was sent to both individual and company applicants. The Philippines had the highest response rate of 12 percent, compared to 8 percent for Indonesia and 9 percent for Thailand. However, reflecting a larger applicant population, Indonesia accounted for the largest number of responses, followed by Thailand and the Philippines.

<b>No. of applications</b>	<b>Indonesia</b>			<b>Philippines</b>			<b>Thailand</b>			<b>sum</b>
	<b>Firm</b>	<b>Individual</b>	<b>Total</b>	<b>Firm</b>	<b>Individual</b>	<b>Total</b>	<b>Firm</b>	<b>Individual</b>	<b>Total</b>	
<b>1<sup>st</sup> application</b>	57	55	112	23	28	51	45	60	105	268
<b>2<sup>nd</sup> application</b>	31	20	51	15	10	25	26	23	49	125
<b>3<sup>rd</sup> application</b>	20	7	27	11	6	17	13	10	23	67
<b>4<sup>th</sup> application</b>	16	4	20	9	6	15	9	8	17	52
<b>Sum</b>	124	86	210	58	50	108	93	101	194	512

## Survey Design

The WIPO research team devoted significant time at the outset to designing the survey questionnaire. Several design-specific questionnaires, such as those employed in Denmark and the United Kingdom, were reviewed. Previous WIPO-run surveys on the use of IDs in Argentina and Morocco were consulted as well. While informative, these questionnaires only partially addressed the study's research questions.

The research team then turned to a set of inventor surveys conducted in several high-income countries, in particular the European PatVal-EU survey.

Unlike the inventor surveys, the present survey instrument was targeted at the applicant rather than the designer. Moreover, the process of design innovation is different from that of

technological innovation and this difference was reflected in the final list of questions included in the questionnaire. Some of the questions related to the importance of design in the firm's business. For example, the questionnaire asked whether the design department is under the R&D department or closer to the marketing department, and if it has a self-standing budget. Other questions focused on the different sources of inspiration giving rise to a design innovation, such as customer feedback or design fairs.

The survey questionnaire was divided into two parts. The first part focused on the characteristics of the ID applicant and posed questions to identify their characteristics such as their line of business, whether they export and their size. If the applicant was an individual, a slightly adapted questionnaire was used. In particular, this adapted questionnaire asked questions related to the individual's employment status and whether the applicant had a connection with the commercial entity that produced the ID protected design.

The second part of the questionnaire then turned to examining the ID protected designs of these users. Among other elements, it asked about the characteristics of the designers listed in the IDs, whether and how the ID was commercialized, its market value, and whether the underlying design was imitated.

Most survey respondents received a tailored questionnaire which included the image of the design for which an ID application was filed for. For the few survey respondents who applied for more than one ID application in the surveyed years, each respondent was asked to fill out a separate survey form for a maximum of four ID applications.

## **Main Findings**

The descriptive analysis of the survey results offers a wide range of insights that can be summarized as follows:

- Most ID users are private and locally-owned companies, with state-owned companies and subsidiaries of foreign companies playing a relatively minor role. Most companies were 21 or more years old. Small firms account for most users, followed by medium-sized firms and large firms.
- Around 22 percent of ID users indicated that they engaged in exporting, with a relatively wide distribution of export revenues. This share exceeds the typical export shares in the general population of firms. It suggests that design innovation may be a way of breaking into foreign markets. Other ASEAN economies were the most frequent export destination, followed by other Asian economies.
- Design innovation is predominantly an in-house process. However, for some designs, companies draw on a mix of internal and external capability and/or inspiration.
- Except in the Philippines, the majority of the designers were between 35 and 50 years old. In the Philippines, the majority were even older, above 50. This finding suggests that accumulated professional experience seems to matter for design innovation.
- Inspiration for new designs comes from a variety of sources. Customer feedback emerges as the most important one. Within companies, there were two principal origins giving rise to the ideas behind new designs. One origin is the department responsible for design innovation or R&D more broadly. The other is senior management, including the CEO's office. Beyond those two principal origins, sales and marketing departments were a source of ideas for a considerable number of designs surveyed.
- ID holders assign considerable value to their ID rights, with the median value lying in the 30,000 to 100,000 USD range. The distribution of ID values is skewed to the right. However, compared to technological innovation, design innovation seems less risky.

- The main motivation for seeking ID protection follows the classic rationales of preventing imitation and ensuring freedom to operate. Licensing and selling of ID rights is rare but it does sometimes occur.
- An imitation rate of around one-fifth suggests that the risk of imitation is real. In addition, the ID holders perceive a high financial loss associated with imitation.
- High legal costs of ID enforcement discourage many applicants from trying to stop infringement of their designs. Where they do pursue infringers, enforcement actions have a mixed success rate.
- Most ID applications are filed without relying on external agents. Applicants then face challenges in navigating through what they perceive to be a long and difficult-to-understand application process.

These descriptive findings will need to be validated and further explored in more in-depth research. In particular, WIPO-ESD plans to analyze the survey responses in an econometric setting, where the statistical significance of different hypotheses can be tested more formally.

### **Lessons Learned and Policy implications**

Running a regional survey requires significant resources. Its implementation took more time than had been initially planned. Several lessons learned in the course of carrying out this study could be used for future studies.

Firstly, the unit-record data used to identify the survey respondents had varying levels of completeness. This was particularly the case in regards to the applicants' contact details. Prior to launching the survey instrument in the countries, the research teams invested significant time in filling in the missing contact details through publicly available information. With the strong backing of the national IP offices, the researchers reached out to trade and design associations to complete the survey respondents' details.

Secondly, WIPO-ESD and the local research teams were concerned with the length of the survey questionnaire. Two pilot tests were carried out before the surveys were launched. The first set of interviews with designers was conducted at two internationally known design conventions held yearly in Milan, Italy.<sup>6</sup> The second pilot test was carried out in the Philippines with a small group of Filipino ID applicants. In both instances, the survey respondents were able to fill out the questionnaire despite its length.

During the implementation of the surveys, the local research teams offered the respondents the possibility of filling out a shorter version of the questionnaire, and/or to conduct phone interview when encouraging them to respond to the survey.

In addition, the staggered launch of survey questionnaires in the three countries proved useful in helping each research team to learn from their different experiences when reaching out to the respondents.

Third, many respondents were hesitant to fill out the questionnaire. The strong backing from the three IP offices proved crucial in helping elicit additional survey responses. The additional workshops organized in the Philippines and Indonesia helped the local research teams to contact the survey respondents directly.

Turning to policy implications, the survey responses reveal that design innovators are using ID rights as a means of recovering their returns to investment in creating new designs. They also

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<sup>6</sup> Milan Design Week 2016 and *Salone del Mobile 2016* held in Milan, Italy April 14 to 17, 2016.

reveal that design innovators face a real risk of imitation. Overall, the ID system thus plays a supporting role in stimulating a form of innovation that firms in middle-income countries – including small and medium-sized firms – undertake. In contrast to patents, firms do not have to be at the cutting edge of technology to be successful at creating new designs. They mainly require human talent, for which there is ample supply even in more resource-constrained environments.

Finally, the study offers some preliminary evidence that design innovation may be a way of breaking into foreign markets and increasing exports. This is in line with research in the field of international trade that emphasizes the special capabilities of firms in explaining exporting success.<sup>7</sup> At the same, the design innovation-exporting link is bound to be automatic. Asking what barriers successful domestic design innovators face in entering international markets could yield further policy-relevant insights.

[End of Annex and of document]

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<sup>7</sup> For an overview, see BERNARD, A. B., JENSEN, J. B., REDDING, S. J. & SCHOTT, P. K. 2007. Firms in International Trade. *The Journal of Economic Perspectives*, 21, 105-130.