



Examining the Impact of the Intellectual Property Rights (IPR) System on Innovation: A Case Study of DEWA

Summary

The UAE seeks to achieve highest global competitive ranks in different sectors. Hence, many campaigns, policies, strategies and laws have been executed to improve the country's global ranking. One of the important sectors for the UAE's economy is innovation. In 2015, the Federal Government devised the "UAE National Innovation Strategy" which aimed at building an environment that encourages and facilitates innovation by creating appropriate regulatory framework, delivering robust supporting tools, expanding supporting infrastructure for technological advancement and ensuring funding and availability of opportunities (Ministry of Cabinet Affairs, 2015). However, the UAE's ranks in global innovation indices are not in harmony with its ambitious vision, indicating a need for concentrated efforts to further advance innovation. A crucial supporting factor in innovation ecosystems is "intellectual property rights" (IPR). Therefore, this policy brief addresses the various challenges associated with IPR through exploring the impact of IPR management on innovation in the Dubai Electricity and Water Authority (DEWA), as a case study. Effective management of IPR is essential for advancing the UAE's innovation strategy, and that is true for local government entities. To gain a better understanding of how IPR management interacts with the overarching innovation ecosystem in DEWA, a number of interviews were conducted with public officials in DEWA and the Ministry of Economy (MOE). Analysis of data helped identify challenges in the IPR regulations and implementation process. Moreover, the research investigated IPR awareness among DEWA employees who belong to both technical and non-technical backgrounds. The significance of this brief lies in providing research-informed policy recommendations to aid policymakers in enhancing the IPR management in Dubai's public sector, and consequently, advancing innovation in the country.

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Introduction

In the UAE, IPR laws are aligned with international standards (Ministry of Economy, 2021) (Al Nuaimi, Al Mukhtar, Omar & Badr Al Din, 2021). Today, the UAE is a member in several IPR related institutions such as the World Intellectual Property Organization (WIPO), the World Trade Organization (WTO), the Rome Convention for Protection of Performers and the Paris Convention for the Protection of Industrial Property (Dubai Customs, 2018). Dubai has made considerable progress globally with regard to IPR laws and management across a variety of industries: Electronic and Electrical Industries, Machineries and Equipment's Industries and more (World Intellectual Property Organization, 2021).

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Although the UAE has taken considerable efforts to advance innovation, there are still challenges to overcome. In 2018, The UAE ranked 38 out of 126 countries in the Global Innovation Index (Cornell University, INSEAD & WIPO, 2018), 21 out of 125 countries in International Property Rights Index 2018 (Property Rights Alliance, 2018) and 27 out of 140 countries in the Global Competitiveness Report 2018 (World Economic Forum, 2018).

Some of the challenges that face UAE's innovation ecosystem stem from the way IPR are managed and processed. In the case of public sector organisations, such as DEWA, the effective formulation and implementation of IPR is not only an issue of legal formality or quality control, rather a crucial move towards ensuring the efficient and equitable delivery of public service. In government entities, specifically with reference to DEWA, some of the pressing contemporary challenges dwells in the form of both the formulation and implementation of patent laws and intellectual property laws. Further, even with having a standardized system for intellectual property laws was formulated in the UAE, the implementation process continues to be one of the biggest challenges. To explore current challenges in DEWA's innovation and IPR system, it is crucial to provide a brief explanation of how DEWA officially regards innovation and manages it.

Innovation Strategy in DEWA

Innovation is listed as one of the key values upon which the entire institution of DEWA and all its initiatives are founded and implemented, showing a glimpse of the inherent importance that is attributed to this core aspect within the organisation. As a part of the corporate strategy followed by DEWA, driven by their increased focus on sustainability and renewable sources of energy, the core driving forces that the organisation has adopted in recent years include 'practical research, development, innovative solutions and technology.' According to Alsaïdi (2017), there are five main goals that drive the innovation strategy at DEWA as showing below.

Owing to the fact that shared value is one of the most integrated parts of the innovation strategy in DEWA, IPR management has to be embraced by the organisation at early stages. This is particularly relevant because innovation does not only contribute to the diversification of revenue at DEWA, but also allows the organisation to represent its interests and brand in a futuristic and sustainable way. Hence, the importance of IP in this case is impeded in the organization's entire system, owing to the fact that innovation allows DEWA to thrive and establish itself as a brand that is line with the national objective of sustainability while also catering to its ever-changing and diverse revenue needs (Hewlett, Sh, & Marshall, 2013).

Research Methodology

The brief is based on a study that utilized qualitative methods of inquiry. Interview questions were designed to extract relevant information with the purpose of addressing the research objectives.

The interviews were divided into three sets of questions: one was directed towards employees within the MOE who have knowledge and experience in IPR laws and processes in UAE. The second set of questions were directed towards employees from different departments and divisions in DEWA who could offer insights into the IPR framework within the organisation. While the third set was targeted employees in DEWA working specifically within the Innovation and IPR department, namely those who form the link between the organisation and MOE.

Designing the interview questions borrowed heavily from the model in Figure 2 below which served as the core foundation for understanding, layer-by-layer, the relationship between innovation and intellectual property. Covering all the various aspects that can be investigated would help in providing a better understanding of the degree to which IPR management practices in an entity like DEWA are advancing innovation in it.



Figure 1. Main goals that drive the innovation strategy at DEWA (ALSAIDI, 2017)



Figure 2. The relationship between IPR and innovation (Asia Pacific Intellectual Capital Centre, 2020)

Results and Analysis

1. IPR and Innovation potential at DEWA

All participants ranked innovation levels at DEWA between 5 to 10 on a scale from 1 to 10. Generally, participants had positive outlook on innovation potential at DEWA. However, when asked about “knowledge sharing” within the organization under the umbrella of IPR, results were skewed, indicating that there is a need to develop more effective knowledge sharing platforms and enhance communication between the IPR department and DEWA employees regarding innovation and IPR.

2. Relationship between IPR and Innovation

All participants agreed that there is a connection between IPR and innovation, reflecting three layers of awareness: fundamental, framework-oriented and holistic. The fundamental level consists mainly of DEWA employees who consider IPR and innovation are linked directly. Their responses reflected the following views: innovation leads to IPR, and IPR protects innovators.

The next level of awareness among DEWA employees, the framework-oriented, included employees of the Innovation and IPR Department at DEWA who reported a strong link between IP and innovation. The importance of proper IP registration procedures for businesses was also identified by all the respondents in this category, particularly emphasizing the role of protecting IP in supporting innovation and all the effort, time and monetary investment that goes into it.

As far as the relationship between IPR and innovation is concerned, the respondents from the MOE have a much more holistic perspective compared to the organisational perspective that colours the views of DEWA employees. According to MOE interviewees, IPR is part of a legal framework that has been developed on a national level, specifically for ensuring a safe and fertile ground for innovation. In other words, their understanding of IPR in relation to innovation

is a more spatial one rather than being a procedural or process-oriented one as is evident from the answers of the DEWA employees in the Innovation and IPR department.

3. Core Challenges in IPR as Reported by Interviewees

The challenges associated with IPR has been outlined in different ways. First, the majority of DEWA employees have reported that their understanding of IPR is not complete, as many of them are aware of some aspects of the process only and not the whole process. Generally, the participating employees indicated that the core challenges stem from the need for mechanisms to filter innovation ideas, the possibility of intellectual property theft during lengthy IP processes, the amount of documentation and length of the IP process, as well as challenges at the level of individuals, such as lack of quality innovations or lack of motivation on the part of employees.

On the other hand, for those who are involved in the IPR department at DEWA, managing relationships and interests between different stakeholders (employees, customers, suppliers, and government entities) has been cited as a fundamental challenge. While some participating DEWA employees have reported challenges pertaining to process length and complexity, those who work in the IPR department do not share the same view. For IPR and innovation employees, the IP process itself is an adequate and functional mechanism. They reported instead that employees’ lack of awareness or the perceived need to overprotect their inventions is the issue. A fundamental challenge at an internal level arises from employees fear to have their innovations stolen during the lengthy process, and hence, they try to avoid going through the process completely.

In general, the IPR team, be it those involved in the development and upkeep of the IP

registration process or those involved in funding new innovations, believe that the general level of awareness among the majority of people about IPR is low. This lack of awareness is evident at multiple levels: the organisation level, whether it is two years ago when efforts started to build awareness or nowadays, and the nation level, which is also fairly young in terms of its history of development.

As far as the employees of the MOE are concerned, the main challenges appear to be related to a shortage of trained personnel in the field of IPR. Delays in processing applications in computer-mediated mechanisms, as well as the need for applicants to be present during the process of filing applications, results in cumbersome and lengthy process outcomes. A gap in the verification process is that there is no defined process to verify trademarks that consist of graphics only. Delay in legal amendments pertaining to regulations on patents and fees related to industrial properties, lack of action in terms of developing accelerated application processing systems, as well as a lack of procedures for considering applications filed by inventors below the age of 18 without a guardianship are also cited as fundamental challenges that need to be addressed.

4. Process-Oriented Aspects

Concerning the channels or procedures involved in filing IP registration application, DEWA interviewees reported that “Afkari” platform

allows applicants to submit ideas for review by the IPR team in the organisation. The responses from the IPR department of DEWA indicate that several other channels also exist, including mails and face-to-face consultation visits with the innovation and IP Management Team at DEWA.

The process of IP registration followed at DEWA is as follows:

An important part of the idea submission process at DEWA is completing the paperwork and conducting prior research needed for filing the IP registration forms, which is not the employee’s main responsibility. It is the IP team that does most of the work and fills out the majority of forms while doing required research and testing of ideas. In this case, the employee or inventor needs to submit an idea, and the rest is taken care of by the IP team.

Compared to DEWA, the procedures and processes at MOE are much more detailed. The processes at DEWA are reduced in terms of complexity, documentation, as well as time needed to complete, as the organisational department handles most of the paperwork and other commitments with MOE.

5. Fundamental Future Strategies

As discussed earlier, one of the challenges mentioned by DEWA employees in lack of



Figure 3. Process of IP registration followed at DEWA

awareness on IPR in general and the process of applying for IP. The analysis reveals that there is a number of core methods used to promote awareness amongst DEWA employees regarding IPR, including the following:

- Internal Awareness programs delivered by the in-house IP Team or by external global specialists in the field invited to DEWA.
- Media publications about the importance DEWA gives to IP protection.
- IP Harvesting workshops.

On the other hand, the interviews from the MOE reported some of the main plans for spreading awareness and overcoming core challenges on a national level with regards to IPR, and that included:

- Activating procedures and establishing systems for accepting international applications while establishing separate bodies for research into international IPs
- Using workshops, seminars to spread awareness about IP and about different laws and process as “Gulf Trademark Law”
- Activating the annual trademark prize than has been announced by MOE for encouraging development.

Another fundamental strategic objective for the future on the part of the MOE involves signing Memorandum of Understanding (MoU) with the Korean government for implementing artificial intelligence for the management of applications. The inclusion of such cutting-edge technological measures can make the process much smoother and more rapid.

Recommendations

1. Addressing Core Challenges with IPR at DEWA

One of the first challenges that DEWA has to address internally with regards to IPR management is to diversify and clarify communication between Innovation and IPR Department and DEWA employees to ensure better knowledge and awareness among employees. The use of group discussions and seminars are not the best way to reach out to all employees, who might not even receive prior notifications that such events are taking place. Another method of communicating effectively with DEWA employees is establishing departmental roles for IP and innovation representatives to cover all of the organisational structure. These employees then will work on encouraging others to develop novel ideas and “out-of-the-box” thinking during everyday activities, and they can also take note of new ideas that employees might suggest. The IP representatives in each department is also expected to have an understanding of the core responsibilities and roles pertaining to the department they serve. This is crucial for ensuring that IP representatives are able to identify core concerns and challenges in daily tasks, and hence, can facilitate internal, as well as intra-departmental sessions, during which novel ideas and solutions would be brainstormed with the aim of overcoming challenges and enhancing operations.

This mechanism has been implemented in one of the major divisions in DEWA. The initiative was newly implemented after it was suggested by the division itself to establish a committee to handle Innovation and IPR internally. The aim was to increase employees’ awareness about the subject and encourage their participation in the innovations pipeline at DEWA. This process can contribute to increasing the frequency of IP applications and issuance, thereby improving the rate at which innovations occur and at which new ideas are generated. More engagement with innovation in government organisations such

as DEWA can have a major impact on national policies, frameworks, initiatives associated with IPR management.

2. Knowledge-sharing in DEWA – IPR and Innovation

DEWA can make use of “Afkari” platform to develop and deliver proper internal employee engagement mechanisms, which can be directed towards sharing engaging content to enable greater degree of employees’ participation in innovation. Moreover, it is paramount to foster an environment for experiential and immersive engagement, and hence, the organization should utilize virtual reality (VR) and other methods based in advanced technologies for the purpose of training employees, interacting with them and increasing their awareness. This, in turn, can have a positive impact on enhancing accessibility to new ideas, and improving filtration processes relevant to IPR management which would be directed towards constantly sharing engaging content and motivational material to enable greater degree of participation amongst employees as far as IPR and innovation are concerned. As the quality of ideas pertaining to IPR and innovation improve, the processes and mechanisms surrounding them will adapt and evolve.

3. Improving Innovation Culture at DEWA

Employing the use of art and aesthetic/recreational activities at the workplace is a major aspect that can change the entire framework of innovation culture at DEWA, because such methods can interact with the psychology of motivation and creativity. For example, interventions could include periodic breaks in which employees are encouraged to participate in guided sessions or free-association sessions where they interact with various arts, such as music, debates, and sculpting. Sport-based events and recreational activities such as video games, board games and similar forms of intervention can also improve employees’ motivation to explore and work in teams. By inspiring employees through artistic and motivational activities, policies and

regulations pertaining to the organizational culture of innovation will experience a major change. Consequently, this can shape organizational environments that are developed specifically in alignment with innovation and IPR in general.

4. Process-Oriented Strategies Scale-up

On a national level, lessons can be learnt from DEWA’s experience to develop better innovation pipeline. DEWA’s IPR process was made easier and more accessible to employees, as the organization simplified it by allowing employees to fill “invention disclosure form”. This practice can be implemented in other organizations or even in academic institutions. Another step that can be taken to encourage innovation at a national level is to establish a multi-disciplinary unit to help applicants navigate the process or for consultation purposes, for instance, regarding which projects, software, and logos can be registered.

Globally, this practice has also been adopted by some top academic institutions like the University of California, where an IP office has been established to facilitate students’ participation, in addition to offering educational sessions on the subject. Moreover, it is recommended to have a centralized source of information regarding IP and application processes.

For this purpose, the MOE can source all essential information, data, and attachments and make them available on the its website, both in Arabic and English to ensure better accessibility. Enhancing IP processes, by making them more accessible and user-friendly, contributes to boosting innovation culture in the UAE, and consequently increase its rank in global indices. Besides, as the website will include all the information that will help answering users and clarify any doubts they might have regarding any of the ministry’s services under “ServiceCard”, it is recommended to have a brief explanation regarding this facility to help answering any of the user’s questions or wonders.

5. Fundamental Future Strategies

As seen by the legal implications that are a result of the strategic interventions that the MOE partakes in as far as the implementation of a safer and more holistic IPR environment in the UAE is concerned, numerous large-scale changes are possible. There were definitive links between ground-level challenges and issues enumerated by the employees of DEWA and the strategic initiatives that were taken by the MOE, which has the power to change the legal framework to overcome said challenges.

Hence, if DEWA becomes a channel of communication between inventors and the MOE, national environment for IPR management can be developed and nurtured further by bringing into the light many major challenges that the process of IPR management put forth. By considering the length and the time associated with the registration process, developing holistic platforms for application submission, creating community-oriented filtration and voting processes for applications and encouraging cultural frameworks in organisations that are built to help innovation, both DEWA and the MOE can cause massive shifts in the topography of IPR in Dubai. Inclusion into the international arena of IPR is another crucial aspect that needs to be considered as a learning curve for ironing out the last kinks in the chain. To do so, it is essential that organisations such as DEWA act as reservoirs of awareness and knowledge pertaining to core challenges and solutions in terms of IPR.

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