Role of Technology Transfer Offices in UAE Universities in Advancing Innovation and Patenting

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UNIVERSITIES IN THE MIDDLE EAST HAVE A STRUCTURED SYSTEM OF TECHNOLOGY TRANSFER OFFICES DESIGNED TO MANAGE PATENTS AND ALLOW THEIR RESEARCHERS—STUDENTS AND FACULTY MEMBERS—TO CONTINUE INVENTING. THESE OFFICES LEAD TO EXPANDED UNIVERSITY PATENTING AND LICENSING.

Examples (not exhaustive):

The Office of Technology Management & Innovation, Khalifa University (public)

Technology Transfer Office, American University of Sharjah (private)

Technology Transfer Office, University of Sharjah (private)

Duties and Functions

Technology transfer offices can eliminate some of the difficulties facing inventors in Middle East by facilitating an easier patent process for university inventors than independent inventors.

Technology transfer offices can help inventors commercialize their inventions.

Lots of education efforts. One job of a technology transfer office is to educate the community it serves.

Education of the university community includes educating inventors on the importance of pursuing a patent, determining what constitutes patentable material, and giving credit to inventors on a patent application.

Technology transfer offices generally provide accurate, easily digestible information regarding the patent process on technology office websites.

Process

The technology transfer office collects patent disclosures and decides whether the university will pursue a patent on the disclosed invention (invention disclosure forms/Information on conception process and dates)

In a technology transfer office setting, the disclosure may remain private until a decision-maker decides to file an application.

A patent will only be rewarded to an inventor who publicly discloses their invention in a patent application. Disclosure to a university entity is insufficient for patent protection because it is not a public disclosure.

Costs

Each patent application may cost between \$6,400 and \$15,000 to prepare and file. Many UAE universities file many patents overseas such as with the USPTO.

Technology transfer office can provide a readily available option for funding if an inventor does not have the immediate means to pay for an application.

In exchange for using this process, the university will retain a share of any royalty generated from the patent.

Faculty members and students may pursue patents outside of the university's ownership. This may be more likely if the university chooses not to fund the patent process.

Application

Once the technology transfer office chooses a patent application, most university inventors undergo a far easier process. The university is the applicant.

Universities have access to any number of attorneys and draftsmen available to assist inventors in the patent drafting process.

Incorrect patent application comes with legal consequences.

If a person is not named as a joint inventor on a patent application and the patent issues, the patent may be invalidated. The technology transfer office, responsible fo the commercialization of these patents, will rectify these errors and ensure patent applications are filed correctly.

Inventors' and owners' statements determine who should be named on a patent application. The patent application lists every person who meaningfully contributed to the patent claims.

Universities are legally obligated to name all inventors on their patents and the lack of recognition demonstrates that the unnamed person did not contribute to the claimed invention's conception.

Patent Commercialization (Licensing)

Once a patent is granted, the technology transfer office also helps inventors in the licensing process.

In the licensing process, patent owners (licensors) license their patents to other individuals and companies (licensees) who want to use the claimed invention.

The licensor negotiates and authorizes the licensee to use the claimed invention in exchange for a royalty.

Process is complex: finding licensees, contract fees, enforcement fees, and other logistical infrastructure.

How many granted patents are commercialized or licensed?

Solution: give a higher percentage of royalties directly to inventors to speed the journey from lab to market.

University inventions are general and not directed to solve a specific industry problem. Hard to determine the invention's eventual value or potential for commercialization.

The UAE Patent Law of 2021

No special treatment/provisions for universities

All provisions that apply to "ordinary" inventions and inventors apply to universities

Grace period (art.5.4) (an inventor can wait a year after their own disclosure to file)

U.S. patent law:

- 1) immunity from the prior commercial use defence (35 U.S.C. § 273 (e)(5))
- 2) instituting micro entity fees (35 U.S.C. § 123(d))

Issues/Limitations

Lack of adequate staff: attorneys, contract drafters, and IP specialists.

Professor bias against contributions from undergraduate or graduate students.

Because of high costs, technology transfer offices may not be able to file applications for every disclosure.

Low percentage of disclosure were from women and low percentage of faculty inventors were women (gender gap).

How much universities make money out of inventions? Or just pursue patents for non-monetary economic motivations.

Teaching vs. research universities.

Lack of statistics or revenue generated from technology transfer activities.

The publishing/conference culture in academia (filing early/file prepublication/ no disclosure at all).

No enforcement of university patents. University technology is usually at very early stage.