

Table 6 Creation and Ownership Challenges of IPRs

- Currently, in order to be protected under copyright law, work must originate from an author's own sufficient skills, labor, and judgment. This law poses a great challenge when trying to determine whether or not AI has used these factors sufficiently to produce such work
- Intellectual property rights are controversial because their stronger international protection may come at the expense of higher prices and reduced availability of products, particularly in developing countries.
- The protection of intellectual property is still rather expensive. The costs include mainly the designing and implementation of a management strategy regarding industrial property protection, the costs of legal services related with obtaining exclusive rights, administration fees, costs of legal disputes, in and out of court
- Counterfeiters are getting cleverer. They are exploiting technological advances to produce copies hardly distinguishable from the originals, in some cases even outsmarting the proprietors
- Fundamental shifts in technology and in the economic landscape are rapidly making the current system of intellectual property rights unworkable and ineffective.
- The intangible nature of intellectual property presents difficulties when compared with traditional property like land or goods
- Unlike traditional property, intellectual property is indivisible – an unlimited number of people can "consume" an intellectual good without it being depleted.
- Investments in intellectual goods suffer from problems of appropriation – while a landowner can surround their land with a robust fence and hire armed guards to protect it, a producer of information or an intellectual good can usually do
- Very little is done to stop buyers from replicating products or services and selling it at a lower price
- Novelty is a patentability requirement. An invention is not new and therefore not patentable if it was known to the public before the date of filing of the patent application, or before its date of priority if the priority of an earlier patent application is claimed. The purpose of the novelty requirement is to prevent the prior art from being patented again
- Criticism of the term *intellectual property* ranges from discussing its vagueness and abstract overreach to direct contention to the semantic validity of using words like *property* and *rights* in fashions that contradict practice and law
- A case referring to one dominant challenge facing African entrepreneurs on exploitation of indigenous innovations
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The Kenyan example occurred in the 1970s when the US National Cancer Institute (NCI) collected the Maytenusbuchananii plant from the Shimba Hills of Kenya. The NCI collected tons of the shrub based on the knowledge of the Digo community who predominantly live around this area and have used this knowledge for years to treat cancerous conditions. The shrub contains maytansine, which is considered as a potential treatment for pancreatic cancer. All the material collected was traded without the consent of the Digo, neither was there any recognition of their knowledge of the plant and its medicinal properties.

(WIPO, 2003; Black's Law Dictionary, 2014; Gottlier, 2000; Lie bowtitz, 2008; Kingstone, 2001; Kameri-Mbote, 1994; Mrundula et al., 2009; Coy, 2007; Calandrilla, 1998)

Source: Compiled by Researcher (2020)

1.6 Results and discussions

Available literature and observed evidence show is that there is very little evidence of IPRs understanding and adoption in Africa (Musungu, 2014; Mpeirwa, 2004; WIPO, 2003). In a period of globalization, developing competitive and innovative economies through improving the intellectual property protection can provide better results for common activities resulting in institutional and global efficiency. Previously studies (WTO,2016; Harroch,2017; Pikon, 2015; Mrudula,2009) confirm vividly what the theoretical and empirical literature amply demonstrates, that is, intellectual property rights play a critical role in delivering on the promise of the world's entrepreneurs, whose innovative new technologies fuel domestic and international economic growth, and help raise global standards of living. The quality of entrepreneurial ability can be improved through incentives that will entice those individuals with the highest entrepreneurial ability to become entrepreneurs. Intellectual property rights provide precisely the kind of incentives that can enhance the quality of entrepreneurship. Literature studied shows that entrepreneurs play a significant role in bringing emerging technologies to the market, but quite often young firms have a limited awareness of the role that IP plays in commercializing their ideas (WTO, 2016; Biskupski, 2017; Breschi et al., 2018). Intellectual property policy is a key component of growth strategies for the development of innovations. It should be noted that patents are granted by national patent offices or by regional offices that carry out examination work for a group of countries – for example, the European Patent Office (EPO) and the African Intellectual Property Organization (OAPI). IP management is most helpful to SMIEs at their earliest stage of development; that is, before the firm gains traction and starts making revenues. Indeed, during this period, IP is the only real asset available to these companies, which in some cases conditions their business model. Entrepreneurs increasingly recognize IP as a key business asset. IP is the basis for a significant portion of venture capital investments. Building patent portfolios around the core capabilities allows businesses to control sectors of technology, adding increasing value through new products and services associated with it. At the same time, such strategy prevents competitors from developing parallel technologies. This is critical for a startup, as the competitor may be better positioned to exploit his incumbent market position, or his cost-advantage (attained through imitation, rather than R&D), thereby displacing the pioneering firm, if the latter has his core unprotected. Getting the right mix of IP protection, therefore, involves not only an assessment of how much protection the institutional setting provides to IP owners, it

also includes selecting the right mix of IPRs that best suits the entrepreneur. In terms of failure to protect property rights, a number of reasons came out as to why start up business found cumbersome to protect their creative work. Among the stated reasons include the need to avoid start-up costs if one was to pursue the IPRs, with or without the right business can operate, lack of knowledge of what exactly is required in seeking for IPRs. New enterprises have to decide on the intellectual property management strategies, and this strategy is recommended to be active. On the one hand, this way of protection can be costly and demanding. SMIEs' perception about the irrelevance of learning how to use IP is not only a problem of personal sheer ignorance or lack of acumen, but stems from the institutional milieu where they operate (BRESCHI ET AL., 2018).

Table 7 Snapshot survey: Empirical results

A snappy survey of six young entrepreneurs in the city of Francistown in Botswana and Bulawayo in Zimbabwe on their IPRs status presented the researcher with shocking results. The study sought to find whether these entrepreneurs had registered their companies, together with the registrations of their trademark, copyrights and trade secrets. None of the six entrepreneurs understood what IPRs are. 80% of them acknowledged they know about patents, trademarks and trade secrets but could not align these to their businesses. The two who understood the issue of patents and claimed to have originality in the products they were offering expressed the cumbersome process of securing patent rights and one professed ignorance of where the patent offices were located in the country. Asked on what they would do if another company infringes and imitate their innovations, 68% indicated that that would be unfortunate but would not do anything except to remodify and change the design of their product. The result from the snap survey resembles deep-seated challenges faced by entrepreneurs in Africa and lack of knowledge is predominant. The same gap is seen in those who are expected to disseminate knowledge and conscientise the SMEs sector to be wary of co-opting an IPR strategy in their planning. An empirical study, through the ministry responsible for SMEs is proposed to examine circumstances of IPRs from the African entrepreneurial perspective. Ignorance has no defense; hence lack of knowledge on IPR on the part of entrepreneurs in Africa cannot be used to justify their failure.

1.7 Recommendations

The importance of strategic thinking on IP for SMEs and entrepreneurs as they set out to commercialize their ideas in the global economy cannot be overemphasized. Innovation should not be viewed within the narrow prism of intellectual property monopolies but framed within a holistic, knowledge ecosystem that includes open innovation, open knowledge approaches and de-linkage of R&D costs from product prices. Protection of IPR issues and how this meets national priorities is a necessary consideration in achieving IPRs efficiency. Instituting an IPRs strategy requires that the intellectual assets once they have undergone a process of transformation through validation protocols that include IP legislation, but also other rules

emerging from the way the ecosystem is structured: case law, technical standards, professional guidelines, and IP auditing and valuation to name a few becomes valuable. Devising and managing these rules is the purpose of IP management. For entrepreneurs a viable IP strategy is therefore important both for identifying and managing their IP assets as well as for understanding the legal and regulatory frameworks by which these assets might be protected and enforced. The study recommended that when an individual or institution develop an innovative product, it is critical to engage a patent attorney or specialists to verify whether the product or service qualifies for patent protection (in other countries only attorneys who will have passed a separate patent bar exam are qualified to work with patents). In circumstances where the product or service fails to qualify for a patent, it is fundamental to find other ways to make the product or service stand out, such as strong trademark branding and enforcement. The study reiterates that where copying is a very common issue for your product or service –and restricting other players from selling the same type of product may not be possible, institutions should develop a distinct trademark-eligible name the institution, register the trademark, and adopt the usage of that trademark name in all institutional events-from packaging to marketing. An owner of copyright or trademark should adopt the use “notice symbols” on their products, such as © and ®. Thus for copyrightable works, the owner can proceed and place the copyright designation – the “C in a circle” © - on their work from the time the work is created. The other recommendation is that there is need of concerted effort to protect a business’s intellectual property. There is need to have member agreement contracts which should state that all intellectual property developed by employees staff or members, shareholders, and other interested stakeholders belongs purely and absolutely to the institution and that those who develop any intellectual property will execute knowing that any and all documents necessary to protect the company’s rights belong to the company. This is more so very relevant and useful to smaller and medium enterprise sector businesses where the owners are the ones developing most or all of the creative ideas. It is prudent to ensure that any independent contractors and employees involved in the trade secrets make-up appendure their signatures of non-disclosure and non-competition agreements. Effective management of intellectual property should be one of the basic elements of the company’s development policy, which may significantly influence its increase in competitiveness in the market. Mechanisms for measuring alternative rights as opposed to current IPR system that does not capture local innovativeness. There is also need to put effective

strategies for increasing information flow and awareness on IPR at both national and regional levels. African countries need to re-engineer foundations for intellectual property rights, evaluate present policies from various angles with purposes to change local thinking and approaches of international community and inspire them to respect African dignity on her indigenous creative works. A coordinated and multi-sectoral approach involving all interested parties is needed. All this needs to be supported by resources and adequate knowledge dissemination, awareness and campaigns programmes and specific training on the discourse of IPRs for individuals and institutions intending to do so.

1.8 Conclusions

By making the company's intellectual assets the focus of its strategic planning, new opportunities are likely to be identified. Of significance to draw from this study is the need for a comprehensive system of law, which protects intellectual property rights of our people by providing creators of ideas a safe and conducive atmosphere in which to develop those ideas. The study advances the notion that there is if a product is new, it is necessary to seek for a patent as this is critical to compete and stand out from competitors. The management of IP and IPR is a multidimensional task and calls for many different actions and strategies which need to be aligned with national laws puts off majority of SMEs, African entrepreneurs need to be supported and get exposed to the commercial value of IPRs. Researchers and other stakeholders have to deepen their role in bringing to the surface the fundamental benefits of mentoring entrepreneurs to begin to respect and bend to the requirements of IPRs for them to be competitive and sustain their business-making Africa a better place for business.

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