Book Review - Handbook of Innovation and Standards

Dr Mohamed Buheji
Correspondence: Mohamed Buheji, International Institute of Inspiration Economy- Bahrain.
E-mail: buhejim@gmail.com

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1. Introduction to the Importance for Reviewing this Handbook

We are living in era that have a high potential for being ready towards effective transformation towards Innovation Economy. The Handbook of Hawkins and his team (2017) explores the potential relations between standards and innovation and try to understand where both coincide to create more sustained economy. Both the editors and the authors in different chapters try to see first how standards function and then try to see how innovation might benefit from this comparatively. Then some of the chapters try to see whether standards have some evolutionary economics built in them, similar to the environmental standard ISO 14000. The handbook is considered to be one of the early attempts to build a holistic view of this relation through a strong literature review.

2. Absorbing the Relation between Innovation and Standard

Overall this handbook is considered a courageous attempt to dilute innovation into the capital economy. However, it fails to address the requirements of innovation economy which is expected to change all the rules of any capital based economy including standardizations. The editors Hawkins et al. (2017) goes through constructing the ways that would lead to building the standards (i.e. through convention, then fiat, then negotiation) to show how the standardization as a process induce a certain practice on behaviour and conformity. Therefore, the handbook would brilliantly address the needs of the readers and the researchers that are looking to explore the potential scope for standardizing innovation. However, it would not address those who are looking for innovating the standards. For example, we’ll find the handbook would help those working in standardization and arbitration business, including development designers and engineers.

The editors and the authors managed to help the reader see how to standardize an innovative products or a service, but they didn’t clearly address yet the dilemma the engineers or designers face when they try to overcome the constrained rigid standards that prevent them from seeing the blind spots or trying new perspectives or insights. The book is more written for researchers and academics, rather than practitioners. The editors might want to bundle all the chapters more cohesively together for the reader, specially the practitioners if they relate how each chapter address the sequence of product/service lifecycle during the early and then latent stages of innovation, commercialization and standardisation. The definition of innovation as being “the changes to any technology, idea and practice” could have been more elaborative to address how it coincides with standardization definition, i.e. as being an attempt to maintain a certain minimum or maximum level of practices of these changes. Again the clear definition of innovation could have sharpened the scope of whether it being meant to be the stage with final tune-up of changes or it is covers also the stages of discovery and inventions?

The work of Hawkins et al. (2017) also explains how innovation makes economies grow the entrepreneurial destabilization of the existing economic activities and structures which lead to a change of conduct in the economic life, based on the work of Josef Schumpeter (1939). Here, the book link, in very interesting way, the two paths that entrepreneurs can go through to bring in new services or products, either through the path of innovation or the path of standardization. Hence, we see for example in section 1.3; the editors try to explain how standards leads to growth, however, failed short to add that innovation would lead to more development. However, and in section 1.4, the editors bring in a very provoking argument that standardisation can bring in new innovation when designers and developer try to meet both the market demand and the standards constraints. Thus one could say that the book is a good reference for researchers looking to see how standards have good effect on the current or the coming innovation. Figure 2.1 Shows also a very good illustration of the relation between standards of quality measurement, codified knowledge and
compatibility with variety of reduction mechanisms as health, safety and environmental systems. With sources of innovation systems as labour divisions, competencies, barriers to entry, network effects, transactions costs, precision, trust and risk, research and complementary knowledge the different sections in part two lead the reader to see innovation through the different variables.

3. Reflections on the Book

Handbook of Innovation and Standards by E-Elgar bring the reader to conclude that both standards and the various mechanisms developing and implementing have some integration with the processes and systems of innovation. Certainly, this work leaves you with the impression that both innovation and standardisation meet in creating “value added” and also are both “value-driven”. Both literature and experience shows that accelerating the process of change is often facilitated by reducing the number of the variables that may be subject to change through the common communication language that the standards offer thus establishing new pathways for learning and knowledge sharing.

Reflecting back on this huge work, as a researcher and a reviewer makes us appreciate the issues of risk and trust. So, while standards can align the balance between trust and risks, innovation would depend on trust and the calculated or the uncalculated risks to create its ignition. Here, standards would be needed more, as during the different stages it would raise both the accuracy and precision of the innovative product and services in specific areas. The book shows how standards are crucial for economies of organisation; therefore, it is used as a catalyst for innovation. Through standards researchers and innovators can have a basis for their development. However, the economic impact of innovation can only be seen only when the innovative products or services hits the market.

With standards, the innovative product or service can move to the critical mass as per (Choi et al., 2011; Featherstone et al. 2016). With standards, the developer can do the necessary benchmarking for amount innovation achieved. With standards organizations of the industry would ensure the compatibility of the products/services. Through open standards, competition would be fiercer but fare. Therefore, the handbook can be considered a comprehensive illustration of the impact of standardization on innovation. With standards as shown in Figure 3.1 innovation be it in technology, or in services, or in products, can be transferred to other parts of the world. The standards would ensure the smooth knowledge transfer, as per Figure 4.1, where the functional model of a system’s innovation would go through Combination, Application, Disruption which represent the (Instability Stage), then as we go the Stability Stage we would experience steps of (Consolidation, Industrialization and Standardization).

4. Recommendations on the Book

Investigating the relation of standards with innovation is as if we trying to investigate the paradox of the continuation of wealth. This Handbook, therefore, helps, in the end, to optimize the functions of different knowledge intensive industries that is today needed during many stages of its development both innovation and standardisation. As a reviewer, one could see that the framework Handbook which summarise the relation of standardization and innovation can be shown in Figure 8.4. The figure shows the spillover effects on productivity and economy and therefore justify how the study of this relation is very important. The reviewer believe that adopting figure of 8.4, as a proposed framework, would help to show the outcome when the standards are implemented. The proposed framework of figure 8.4, if generalised, would help to show be lots of technical opportunities that could be linked to innovative products and processes. This, in turn, would lead to more possibility for building more trust in the profitability of innovation and propensity to innovate (depending on nature of competition). Therefore, it is highly recommended that Figure of 8.4 be adopted, in the first part of the Handbook specifically, to be the framework that would raise the curiosity of the readers and researchers about the great purpose and potentials of this huge work.

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