

Comparison of the definition of innovation in the Oslo Manual and the definition used by the International Organisation for Standardisation (ISO)

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Abstract

This paper compares the definition of innovation in the third edition of the OECD/Eurostat Oslo Manual used for the purpose of statistical measurement and the definition of innovation used by the ISO (ISO 9000: 2015) and currently being elaborated upon by the ISO Technical Committee 279 on Innovation Management. The objective is to show how the two definitions are connected. This work is a contribution to the revision of the Oslo Manual and to the ongoing work of ISO TC 279.

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1. Introduction

This paper compares two definitions of innovation and shows how they are related.

The first is the definition published by the International Standards Organisation (ISO) (ISO 9000:2015) and which is being further described by the ISO/TC 279 Innovation Management with a view to publication as ISO 50500:2018 Innovation Management: Fundamentals and Vocabulary.

The second definition is published in the third edition of the Oslo Manual (OECD/Eurostat 2005).

The paper notes that the ISO definition has a different domain of application from the Oslo Manual (OM3) definition which is used for the purposes of statistical measurement. The ISO definition is more inclusive than the OM3 definition in that it goes beyond product, process and method innovation, but it is also more restrictive in its requirement that an innovation realizes or redistributes value.

The paper concludes with a suggestion that there be an ongoing dialogue between the ISO/TC 279 and the OECD/Eurostat community responsible for the revision of the OM3 leading to the fourth edition of the Oslo Manual.

2. The ISO definition

The ISO definition of innovation is found in ISO 9000:2015 paragraph 3.6.15. “An **innovation** is a new or changed object realizing or redistributing value”.

‘Object’ is defined in paragraph 3.6.1. as “anything perceivable or conceivable”. Examples of an ‘object’ are: product, service, process, method, model etc.

Given the definitions and examples provided, a description of innovation, consistent with the ISO definition, can be: “a new or changed product, service, process, method, model etc. realizing or redistributing value”.

The ISO definition requires an innovation to realize value (economic or non-economic value) for one or more stakeholders (e.g. producer, consumer, supplier etc.), to be called an innovation. The realisation (or redistribution) of value need not be intentional.

3. The Oslo Manual definition of innovation

The OM3 definition of innovation is given in paragraph 146 of the Oslo Manual.

”An **innovation** is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.”

‘Implementation’ is defined in paragraph 150.

”A common feature of an innovation is that it must have been *implemented*. A new or improved product is implemented when it is introduced on the market. New processes, marketing methods or organisational methods are implemented when they are brought into actual use in the firm’s operations.”

In the OM ‘new or significantly improved’ is described using three levels of novelty (para. 205): new to the firm; new to the market; or new to the world.

Similar to the ISO approach, an innovation is defined as an outcome of innovation activities, of which there is a long and not exhaustive list (para. 103). Innovation activities are defined in paragraph 40 where it is made clear that innovation activities are undertaken with the intention of innovation. They may not always result in innovation which is why information is collected on ongoing or abandoned innovation activities of firms (para. 215).

In the OM definition, innovation is the result/outcome of a product, process or method being ‘implemented’. For a product this means ‘introduced on the market’ and for a process or method it means ‘brought into actual use in the firm’s operations’.

4. Comparing the definitions

The ISO definition, by comparison with the OM definition, is succinct. However, ‘new or changed’ aligns with ‘new or significantly improved’ in the third edition of the OM. ‘object’ can be a ‘product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations’ but it is not restricted to the OM list. In this sense the ISO definition is more general than the OM3 definition.

Where there is a difference is in ‘realizing or redistributing value’ in the ISO definition. The OM3 definition is silent on value and requires only that the product/object be introduced on the market or that the process/method be brought into use in the firms operations – implicitly getting product to market in a better way. In this respect, the ISO definition is more restrictive than the OM3 definition.

One possible resolution, if the objective is to show that the ISO and the OM3 definitions of innovation are related, is for the ISO to impose a restriction on the OM3 definition to require that the OM3 innovation result in realized or redistributed value. With such a restriction, the ISO definition would fit into a class of restricted definitions of innovation. Other examples are green, sustainable, inclusive or pro-poor innovation, all of which require an outcome in addition to the innovation being introduced on the market or being brought into use in the firm's operations. The ISO restriction would be innovation that 'realizes or redistributes value'.

Another possible resolution is to argue that the ISO and OM3 in principle share the notion that value must be realized for something to be called an innovation. In the case of OM3, the definition is an operationalization for measurement purposes where 'introduced to the market' is a proxy for value realization that is easy to understand and possible to measure in a survey context. This means that 'value' is not a special class of innovation but a generic characteristic of the concept of innovation. As a consequence, there is no such thing as an innovation that is not realizing value. For example, a sustainable innovation, may realize environmental and/or social value.

While the definition of innovation is silent on value, the OM3 does address the question in Chapter 7 on "Objectives, Obstacles and Outcomes of Innovation" and recommends in paragraph 390 that data on the objectives or effects of innovations implemented by enterprises during the period under review be collected. This raises a question, for discussion as part of the revision of the Oslo Manual, leading to OM4 about adding to the present definition in paragraph 146 a phrase like 'with the intention of realising or distributing value'. There would have to be a discussion, some of which is present in Chapter 7 of the OM3, of the possibility that intention is not always realised and that innovation can happen without intention.

At this stage it is important to realise that the OM3 definition is for the purpose of statistical measurement of the activity of innovation. It does not exist to provide guidance on innovation management. The purpose of this section is to show that *for measurement purposes* the two definitions can be linked in a way that supports statistical measurement of innovation as defined in ISO 9000:2015 and is being elaborated in the forthcoming ISO 50500:2018. The link between the two approaches should be seen as matter for ongoing discussion.

5. Measurement issues

Innovation may be the outcome of innovation activities and in the EU Community Innovation Survey behavioural questions are put to respondents about products, processes and methods. The products, processes or methods are innovations if they conform to the OM3 definitions.

Questions are already asked in CIS about the percentage of turnover due to new or significantly improved products that were new to the market, or new to the firm, and about the percentage of turnover due to unchanged or resold products. Responses to these questions do not alter the definition of innovation, but they do reflect value realization.

For analytical purposes, the occurrence of ISO product innovation could be found by requiring that the product meet the OM3 definition and that it generate value.

For process and method innovations, some work would have to be done to identify the value created by better use of inputs and the changed outputs as well as changed product delivery, management practices, or market development. However, that these are manageable survey development tasks, not a conceptual issue.

6. Next steps

There are two issues in this note.

The first is demonstrating the compatibility of the ISO definition of innovation with the Oslo Manual definition for the purposes of statistical measurement.

The second is to decide how to bring this discussion into the revision process of the Oslo Manual leading to the fourth edition and into the ISO TC 279 discussion leading to a standard for innovation management.

References

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