Heaviness in Business Interaction

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Abstract

One important result in the IMP-studies is that the business interaction has a certain substance. This was already seen in the first study (Håkansson ed 1982) and it was one of the key aspects in the IMP 2 (Håkansson & Snehota 1995). Here we want to discuss how we in these studies and in the large empirical study reported in Håkansson & Waluszewski (2002) have tried to capture and measure this substance and its heaviness. By doing this we want to discuss three specific questions: (i) why it is important to measure heaviness in business interaction; (ii) how it was measured in these studies; and (iii) the need to develop better measures of heaviness. We conclude that heaviness has been a key aspect, that how it has been measured has developed in quite a remarkable way and that we need to continues this development in future if we want to have an impact on economic analysis.

Introduction

Why are exchange so difficult to change? Why is it so hard for new products and services – which correspond to obvious economic and societal needs – to become embedded into exchange interfaces which can guarantee their production and use?

In all economic analysis, the conceptualization of the phenomenon of exchange is central, and it has always been at the heart of marketing research (Kotler, 1967). What can be achieved through economic exchange has over the last decades also been exposed to high expectations by economic policy. In the OECD as well as in EU policy, exchange is acknowledge as an important mean to distribute knowledge advances; from the knowledge producing setting to market and society (Rider et al, 2013; Eklund and Waluszewski, 2015).

What mainstream economic analysis and contemporary policy has in common is that the conceptualization of the empirical phenomenon of economic exchange is based on a rough simplification. In both these settings exchange is modelled as a rather simple mechanism, consisting of a price comparison between alternatives that in all other aspects are identical (Eklund, 2007; Eklund and Waluszewski, 2015) This implies that changes in exchange interfaces is assumed to occur instantly. As soon as a price comparison indicates that the relative performance of one economic resource is better than the other, it will also replace the previous exchanged resources. Hence, the basic policy recipe to create change is to make knowledge advances available for economic exchange; when that is done they will; if they correspond to an identified demand and if their relative performance are better than existing economic resources, be the object of exchange; available for customers in the private as well as in the public setting.

Economic exchange is in this interpretation a phenomenon that is possible to calculate (Blau, 1964). Before the exchange is done, both sides can calculate the total effect of the exchange; what they are giving out as well as what they are receiving. Economic exchange has no (and should not have) any history or any impact on future exchange situations. An ongoing exchange should not be affected by what was done previously – and should not affect future exchange. It is a closed and final exchange in one moment of time, without being influenced of or influencing the context in which it takes place. In this way the economic exchange has no own content – and consequently, it creates no substance that is affecting other exchange situations in time and space. All the description and analyses of the exchange can be done by focusing on the features of the exchange and the valuation of what is exchanged.

Hence, in mainstream economics and in approaches closed to it, *to change an exchange interface is not an issue* – exchange interfaces are assumed to change all the time, in relation to price reactions.

Almost opposite interpretation is made of the phenomenon of social exchange Social exchange is conceptualized as having a content over time (Blau, 1964). Different exchange situations are assumed to be connected to each other over time – and therefore cannot be calculated for immediately. For example, sometimes one of the counterparts in the social exchange has to wait for a shorter or longer period in order to get the exchange benefits. Hence, he/she has to trust the other side to give anything back in the exchange in a later stage (Blau, 1964).

But is the latter type of content really unique for social exchange – or is it actually what characterizes economic exchange of any significance? At least, this is what's suggested when economic exchange is investigated from an interactive point of view. In observations made by economic anthropologists, even the simplest economic exchange appears to have a content; what's exchanged is reacted upon by both sides and each exchange situation is leaving traces in behind; on the exchange object as well as on the parties involved (Gudeman, 2001). This is also close to observations made in a number of early empirical studies on industrial marketing and purchasing, which eventually triggered the IMP project. The common denominator of these studies; carried out in Sweden (Johanson, 1966; Håkansson and Wootz, 1975), in UK (Cunningham & White 1974, Ford, 1976) and in Germany (Kirsch & Kutschke, 1978) was that they all indicated that industrial purchasing and marketing had a way of functioning which were rather far away from how it was depicted in economic and marketing theory.[1] The observations suggested that industrial buying and selling were closer to Blau's (1964) characterization of social exchange compared to the mainstream economic idea of content-free price reactions.

Since then, the basic mission of IMP research has been to investigate the content and consequences of business exchange in its widest sense. The investigations has focused on the content of exchange and the more or less 'heavy substance' that it creates; in terms of relationships and imprints on social and material resources involved. Furthermore, on the consequences this substance have; for individual companies, the parties involved in exchange, for the larger business landscape and for society at large (Håkansson et al, 2009).

A basic consequence of the substance that economic exchange creates is that time and space matters. This in turn implies that to change an exchange interface is an issue – that creates reactions on and from related exchange interfaces. Furthermore, the substance created through economic exchange implies that business relationships becomes important means – to increase and/or to reduce this, and above all, to utilize it in combinations over time and space.

One important questions that appear as soon as any counterpart aims to utilize the substance created through exchange; for example, in order to change an exchange interface or in order to embed a new social or material resource in a producer-user interface, concerns how heavy it is (Håkansson and Waluszewski, 2002). How heavy is the substance and how does the heaviness impact on attempts to create change? Does it mainly appear as a hindrance – or can it also be taken advantage of in a change process?

In this paper we argue that in order to understand the consequences of economic exchange, and above all; the ability to create change, it is necessary to understand the role of heaviness; its positive and negative consequences included. This in turn raises questions concerning the reasons for and the ability to estimate heaviness, which leads to following main research issue and two related issues:

Why is it important to estimate heaviness in economic exchange?
- How has heaviness been estimated in IMP studies?
- Is there a need for further development of how to estimate heaviness?

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[1] Similar observations was empirically oriented market researchers, such as Aldersson (1957) and (1965)

The paper is organized as follows: In the next section we discuss the importance of heaviness, based on observations made in IMP research. Then we focus on if and how heaviness has been estimated in this setting, a discussion that is illustrated with examples from three published empirical studies. Finally, we discuss how estimations of heaviness can be developed.

The importance of heaviness

One indication of the importance of substance is the high failure rate for attempts to embed new products/services in exchange interfaces (Harrison and Waluszewski, 2008). A number of longitudinal studies of product development and innovation, carried out by researchers in history of technology, (Basalla, 1988), in economic history (Hughes, 1987) and innovation studies (van de Ven et al 1999) as well as in the IMP setting (Håkansson, 1989; Håkansson and Waluszewski, 2002) underlines the heavy economic investments that are behind the development of new products, services and facilities (such as a new car, a new telecom system or a new production plant). Behind todays mundane products and services; an item such as a mobile phones, or a service such as a journey made by bus, train or air, there are enormous capital invested; in systems responsible for their development, production and use. Numbers of social and material resources have been related to each other over time and space, and an important mean in these processes is business relationships – into which content and function there also is a large capital invested (Johanson & Wootz 1986).

Hence, any attempt to change an exchange interface will be faced by more or less heavy substance of established and related exchange interfaces (Håkansson and Waluszewski, 2002). To identify and to estimate the heaviness of these can give an indication of a) the existing economic substance, and b) how to relate to it.

The existence of substance gives the phenomenon of business relationships a specific role which definitely not is recognized by mainstream economics. The content of economic exchange, which over time results in a substance, gives business relationships an important role in terms of the ability to influence both specific exchange relations as well as the total economy. The created substance will affect the involved parties as well as the use of resources and performance of activities, in two ways: Firstly the substance in the relationships will be added to the total economic substance, and secondly, the feature of the substance existing within the companies will be affected by the features of the substance in the relationships. Thus, this substance will be of importance in a lot of different situations as will be outlined below.

The heaviness of the substance; as well as how it is structured, is important for change (and for efficiency, which is implicitly touched upon in this paper); for the individual firm, its counterparts and for the larger business landscape. For the individual firm it is important both from a strategic as well as an operative point of view.

If we start with considering how substance affect the development issue, all changes will face the existing substance and all changes have to be done in relation to the existing substance. Small changes; that are only affecting the total heaviness restrictedly and stepwise, and are in line with the existing structure will be easier to get embedded and can even be supported by the existing substance. Larger changes; and especially those that are not in line with the existing structure, will always meet resistance. The more that is invested in the existing substance the larger the resistance against larger changes are. Thus, conservatism in these issues is not just an attitude – it is very sound economic behavior as it is a protection of existing investments. The reason lies in the existing efficiency. A substance must be structured in order to fit with other substances. The efficiency is dependent on this structuring of substances. Each substance has to both be structured in itself in relation to the different internal parts but it has also to be structured in relation to at least some of the other external substances. Here relationships can be such linking substances. Thus, they are crucial for the efficiency of the involved companies.

The possibility to take advantage of substance in terms of efficiency and in terms of incremental development steps has however a dark side. Each substance can be structured in an efficient way to some other substances – but not to all other substances. The established structure will in this way function as a selection of what development paths that are beneficial in relation to existing investments. The situation can be described as a paradox. The more structure a company has in its substance and the heavier the substance is the more efficient will it be in relation to some counterparts – but the less suitable will it be for some others. Consequently will it be less possible (or more costly) to combine with new developments paths implying radical changes.

Hence, anyone that want to create change; managers, policy and other stake-holders, has to consider heaviness in the existing business relationships and its consequences, in short as well as long run. All strategic decisions will face a world of heavy business relationships and have to be realized in among these relationships. Any larger internal investment will build on some and challenge other relationships – and in all cases heaviness in the latter is crucial. In the same way the heaviness in the relationships is central for all operative decisions; within areas such as purchasing, marketing and research and development. In all these cases the relationships and their heaviness will affect both the possibility to make changes and the consequences that will appear.

Heaviness is also an indication how to treat the relationships – who should be responsible for them and how they should be related to. The heavier the more important they are from an economic point of view, and the more they have to be accounted for in all type of decisions. This should imply that there are more functions involved – and that these also are very central ones.

There is also a variety in the heaviness (Håkansson and Waluszewski, 2002). The total heaviness varies to a very large degree from very heavy to very light relationships. But more importantly there can also be a variety in the content creating the heaviness. There can be those that are heavy due to the volume sold or bought and there might be others that are heavy due to technical or other type of cooperation. All together it means that it is important to measure heaviness and its content and function.

How has heaviness been estimated in earlier IMP-studies

The discussion is based on the implicit and explicit estimation of the content of business exchange, the substance it creates and its heaviness, made in three IMP studies; Håkansson ed, 1982; Håkansson and Snehota, 1995; Håkansson and Waluszewski, 2002).

The triggering forces of the IMP project was, as mentioned above, the indication that economic exchange had a content and that this gave imprints on those involved: their social terms of heaviness, different aspects of the content and the substance it created was taken into consideration.

*A **first important aspect of the content of economic exchange***; indication substance as well as its heaviness of a specific relationship, was estimated in terms of relative volume exchanged. The relative volume is important; it gives an indication of how important the counterparts are for each other and how much they are dependent on each other. If the counterpart takes for example 20% of the total volume bought or sold, the exchange is significant – although volume in itself just indicate a certain importance which may for example make it might be difficult to quickly change counterpart (Håkansson, ed, 1982). A substance related aspect is the adaptations made; that is the degree to which the two counterparts have made adaptations in relation to each other; technical, organizational and/or administrative. In combination with volume this gives an indication of how heavy the relationship is for the two parties in terms such as economic investments or cost for maintenance. Another related dimension to take into consideration is the time the interacting parties have spent in order to establish and maintain the relationship; in terms of number of persons involved as well as the total time the two counterparts have worked together. A related dimension is what type of positions (level as well as specialization) represented by those involved in the exchange.

When these investigations were made in the first IMP-study, the result were striking (Håkansson, ed, 1982). Every investigated company had some very important and thereby potentially heavy relationships. The most significant relationships included a number of technical, organizational and administrative adaptations and were handled by groups of managers and specialists on both side of the exchange interface. Hence, the first IMP-study did confirm that important economic exchanges have a content and that they create a substance; manifested in related technical and organizational resources and in business relationships. Furthermore, it suggested that the latter might be the most important asset of a company.

A second important aspect of the content of economic exchange and the substance it creates is its context; that is the set of relationship to which each specific exchange situation is connected. This aspect, which was in focus of the second joint IMP study (Håkansson and Snehota, 1995) can be investigate in terms of the set of relationships in which a particular exchange takes place. The investigation of a relationship in a network of connected relationship is an aspect that affects the content of the exchange. Hence, it can be used as an indication of the substance created as well as of its heaviness.

An important consequence is the need to identify and typify the connections among business relationships in several different dimensions; technical as well as organizational. In the second IMP project, this was made through investigations of the content and effect of three different layers of business relationships; how activities, resources and actors could be systematically related by activity links, resource ties and actor bonds. These investigations indicated three types of substance that might have been created; its heaviness as well as its connections.

Activity links is connecting activities performed by the involved actors through adaptations or administrative routines to each other creating activity chains or activity patterns. They can be identified by investigating how the activities are systematically related to each other within companies but also across boundaries. The existence of chains and different activity patterns means that the activities are highly interdependent and that increases the economic heaviness of each of them – they are not just important in themselves but also as a complementary activity to a number of others. They are bound to the activities performed by the others. Cost of change increases which is a good indicator of heaviness in action.

Resource ties develops when resources are systematically related over time. The resources will be adapted to each other and again the economic heaviness of them increases as they become part of a larger totality. The basic reason behind is that the resources seldom are totally known, they have unknown features that can be developed by systematically combine them with other resources. The interface between them can often be developed creating specific ties. The existence of ties bind the resources together and through relationships this take place across firm boundaries. Every single resource will be embedded in a number of other resources including the relationships.

Actor bonds is a result of social ingredients in the exchange processes. The counterparts get to know each other and there are often social consequences of the personal interactions. Actors invest in other words in each other and these investments are important to utilize. Through well established relationships a company can be much heavier than can be seen in the internal investments. Through relationships developed into a network companies can create a much larger totality than if they try to develop in an independent way. They become part of a larger totality and they can benefit in terms of heaviness.

Together, links, ties and bonds gives an indication of different types of substance; in a certain relationship, and/or for a certain actor, and how this substance is related to the substance of other actors and thereby to the total substance and heaviness of a network. Hence, the identification of a network of relationships can also be seen as an instrument for estimating how a single relationship and its substance is part of a network of relationships and how this affects/multiplies the heaviness of the relationship.

*A **third aspect of the content of economic exchange***, the substance and heaviness this creates is technological development. In Håkansson and Waluszewski, 2002, heaviness and variety is central concepts in the investigation of how technological development is related to business relationships. This is accomplished with investigations of how different type of resources are combined. The identification of four different type of resources (two types of physical and two types of organizational resources of which one was relationships) was made in order to explicitly estimate heaviness and variety.

Furthermore, a number of indirect effects of the exchange needs to be captured; in terms of how technical and social resources are combined with each other. Through identification of interfaces among the four types of resources involved, indications of total heaviness of a relationships and how it affected other resources can be made. It is a way to get an indication of the variety of the total embeddedness of every actor in the total network of relationships. These indirect connections are of high importance and they are critical to catch in order to understand the total heaviness and its impact. It was in this way possible to identify an important multiplying factor in all network of relationships.

To summarize, the content of economic exchange, and the heaviness of the substance it creates can be estimated on three levels. The first is quite simple items such as relative volume, adaptations, contact pattern and length of interaction in the single relationship. This can give an estimation of both the direct costs as well as the direct revenues of the single relationship. On the second level these estimations can be complemented with how the combination of single relationships affect the three layers activities, resources and actors. This type of estimation of links, ties and bonds give indicators for how the single relationship is connected in different ways to the larger network of relationships. This help us to find indicators not just of the degree but also specific effects of the heaviness. Finally on the third level we can catch at least some of all indirect effects on the total structure of how all the resources including relationships are effecting and become embedded into each other through relationships developed within a network of relationships.

In the next section we will use two short empirical examples to illustrate the role of heaviness in attempts to create change.

Heaviness and change – empirical examples

The empirical illustrations both concern attempts to embed new products in economic exchange interfaces in developing, producing and using settings (Håkansson and Waluszewski, 2007) and both are facing a severe resistance, before they eventually are becoming successful innovations.

Opera – embedding a new type of web-browser in producer-user exchange

The first example concerns the development of a new type of web-browser; an innovation journey that also lead to the spin-off of the unit responsible for its development from the Norwegian telecom company Telenor, as presented in Svendsen et al 2014 and Håkansson & Olsen 2015.

When Opera is started it can build on substantial investment in a development project of web-browsers, which is already paid for by Telenor, and the two founders is also supported by Telenor in the company establishment. A new type of web-browser, especially adapted for use in mobile phones is developed, and one of the largest company' in this setting, Nokia, shows interest in the browser and the ability to use it as one of the system delivered together with its mobile phones. For a small fee, Nokia gets the permission to include the browser in its products and Nokia delivers it in their cheapest model which is sold all over the world.

Suddenly Opera's web-browsers get numbers of users; most from distantly located low-income regions where the internet infrastructure is poorly developed. In these regions, the mobile phone is the shortcut to use internet, and Opera's web-browser and its reduction of information capacity needed is

highly valued. For example, Nigeria is one of the countries where Opera; through the widespread use of Nokia's cheapest mobile phones, is a large body of users; in 2014 they are accounted to 11 million.

Opera is however facing a severe problem. None of the users are paying for the web-browsers and Opera is struggling with how to be able to economically benefit from its widely used innovation. It is not until Opera manage to develop relationships with some of the main mobile operators in these regions; and gets the chance to deliver special and joint services together with these, that Opera finally manages to get paid for the use of the browsers.

The Opera case, which is extensively presented in the sources mentioned above, is an illustrating example of how a new product system, launched by a newcomer, have to relate to the existing heaviness; in its development, producing and using setting. First, by getting the opportunity to spin-off a development project which had drawn significantly from the development resources of Telenor, but eventually is considered to not fit into the product system of the latter company. Second, by getting the web-browser embedded into the production and sales of company with global activities in the mobile phone industry. And finally, by managing to establish close cooperation with the indirect users of the web-browsers, the mobile phone actors. The story is a nice illustration of a how a newcomer has been able to utilize the heaviness in its developing, producing and using setting, through its close cooperation with established and significant counterparts – which also have financed the main part of this substance.

Tavi – embedding a new type of heart surgery in producer-user exchange

The second short example is the development and embedding of a new type of heart surgery in producer-user exchange. The development of Tavi was triggered by a medical advancement concerning a minimal invasive technique, made by a physician at rather small hospital in Denmark. The physician behind the technique is filing a patent in the late 1980s which he also manages to sell to a small Stanford based med tech company, which gets the patent for a small fixed fee and a percentage of future sales.

The first company owning the patents does however not engage in the development of the technique – it appears to not fit into the overall development of the company. For 5 years the technique exists just as a patent – nothing else is happening to it.

However, the Danish physicist still trust he's technique and manages to mobilize a senior manager at a larger established med tech company to engage in it. The manager at the larger company consider the technology as promising and together with internal and external internationally recognized experts within the field of heart surgery he engages in the development of the technique. The patent is bought and utilized as a base to further develop the technology, and after five years of development endeavors a prototype for minimal invasive heart surgery is presented.

With the prototype at hand, another company which is backed by an international med tech group becomes interested and takes over the project. The new company is through its development and supply of surgery equipment well established among hospitals worldwide. It makes large efforts to get new operation technique established and manages to get it FDA approved.

To embed the new minimal invasive technique into a user setting still requires heavy investments. The technique is sold to the hospitals as a system solution; which implies that the supplier is responsible for installing the system and for training of physicists and other personnel involved in the operations. This is provided by specialists on the technique and by proctors responsible for how to develop each clinic in order to be able to perform the new type of operations. In total, the suppliers' role includes aspects from the design of the operation facilities over to how the operation team should be designed. About 25 years after the discovery was made at the Danish hospital, about 100 000 operations has been made with the new minimal invasive technique.

The second empirical example gives an indication of the heavy investments needed to establish a new technology for heart surgery – and to get it embedded into producer-user interfaces worldwide. It gives a hint about how important it is with heavy actors involved, which have significant relationships to expertise in the developing, producer and user setting, in order to get a new, alternative surgery technique the chance to be evaluated, tested, improved and eventually embedded. The resources that need to be mobilized and adapted in the development, producer and user settings are huge – it is not enough that some leading physicists in some few hospital engages in an alternative technique. In order to get it embedded changes have to be made in a number of interfaces on a number of levels – and also health care systems on national and transnational levels must be convinced that a change is motivated.

The need for estimations of heaviness

The example presented above illustrates how important heaviness in terms of established and significant relationships are for making any changes. In order to change or to establish a new economic exchange interface, there is an urgent need to utilize this heaviness; to find out in what way existing investments made in related interfaces can be taken advantage of. In order to do that, there is need for a better understanding of the function of heaviness and also the variation in its content. In order to get richer pictures of the heaviness we need to develop the estimation of it.

Firstly we need more and better empirical based estimations of the content in single relationship. We need both better measurements of the total investments in single relationships as well as of how these investments are distributed between different dimensions or aspects. We also need better estimations of what is required for keeping and maintaining these relationships.

Secondly, we need better estimations of the effect of combined investments in several relationships. As the Opera case revealed, there are special effects of having investments in related relationships. This combination effect is related to a heaviness that comes from the unique combination of different substances. This is a research area where we only have taken the first steps.

Thirdly, we need a number of estimations for the total heaviness of networks of business relationships. We still lack the measurement or way to estimate a part of the network, the value to be part of a network, the value of established relationships.

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