

Multiple Disciplinarity in Management Research

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Abstract: *The objective of this article is to describe the possibilities, problems and challenges of multiple disciplinarity in management research. Multiple disciplinarity i.e. multidisciplinary, interdisciplinarity and transdisciplinarity as well as its methods i.e. blending, borrowing and combining are first depicted. A new concept of multiple modeling is introduced in this connection. The empirical studies that illustrate the utilization of multiple disciplinarity and modeling in managerial research, especially in marketing management are then examined. The empirical results of the author's four studies and three secondary studies show that there are some gaps between marketing practice and current theories, there is a significant parallel i.e. multidisciplinary use of both approaches, often some kind of intermodeling use of the combinations of the approaches and a strong need to find out how to combine the approaches properly. The possibilities of borrowing and blending as methods towards multiple disciplinarity and modeling are also discussed. Then there is a concluding discussion about the nature and reasons of multiple disciplinarity and modeling. Some generalizations and challenges are raised concerning the utilization possibilities of multiple disciplinarity and multiple modeling which extend throughout the fields of science.*

Keywords: *multiple disciplinarity, multiple modeling, challenges of multiple disciplinarity and modeling.*

1. BACKGROUND

The production and existence of scientific knowledge is organized in disciplines. As to the boundaries of different disciplines, this organizing is sometimes fairly natural and easy. Often it is rather arbitrary and even violent. But generally it is more or less artificial.

To a great extent for this artificiality of the boundaries of disciplines, the possibilities, problems and challenges of multidisciplinary, interdisciplinarity and transdisciplinarity have developed at these boundaries quite fastly during the last few years. Actually, these concepts are slogans in scientific discussion. They are largely accepted by scientists, educators etc. However, many users of these terms and even some researchers that utilize this phenomenon in their studies seem to understand the phenomenon quite superficially. In fact, this phenomenon that can be called here "multiple disciplinarity" is complex and it has many levels.

The objective of this article is to describe the possibilities, problems and challenges of multiple disciplinarity in management research.

2. MULTIPLE DISCIPLINARITY AND MULTIPLE MODELING

Multidisciplinary, interdisciplinarity and transdisciplinarity are associated with more than one existing (academic) discipline. Multidisciplinary draws on knowledge from different disciplines but stays within their boundaries. Interdisciplinarity is usually considered as the knowledge extensions that exist between or beyond academic disciplines. It analyses and synthesizes links between disciplines into a coordinated and harmonized whole. Transdisciplinarity is more holistic and relates disciplines into a coherent whole. It transcends the disciplinary boundaries. By nature multidisciplinary can be considered additive and collecting, interdisciplinarity interactive and transdisciplinarity holistic. (cf. Besselaar and Heimeriks, 2001, NSERC, 2004, Choi and Pak, 2006 and Lehtinen, 2013 and 2014)

The concepts described above are relatively young. Multidisciplinary and interdisciplinarity are found even in main dictionaries of the 1970's but the concept transdisciplinarity is younger. The concepts are somewhat immature, closely connected and sometimes used variably. Some former definitions are practically interchangeable. Thus e.g. interdisciplinarity and multidisciplinary are occasionally used as synonyms.

The concept multiple disciplinarity is here used to mean multidisciplinarity, interdisciplinarity and transdisciplinarity, when the level and nature of involvement of multiple disciplines is unspecified (cf. Choi and Pak, 2006). Consequently, multiple disciplinarity can be considered a kind of the cover concept for multidisciplinarity, interdisciplinarity and transdisciplinarity which refers to the different levels of involvement on the multiple disciplinarity continuum.

Basically, multiple disciplinarity means the utilization of more than one visual angle in the scrutiny of one scientific problem. Because of the nature of the problem in question the best study often is multiple disciplinary. But any level of multiple disciplinarity can be the best approach to the certain problem in the certain stage of scientific development.

At least combining, borrowing and blending are possible methods or procedures by which multiple disciplinary theories, models, frameworks and approaches can be created. Also other terms like joining, uniting, integrating, pertaining and involving can be used in this connection.

Combining is mainly utilized as a method of multiple disciplinarity in this article. Combining means putting different parts together. The parts can be disciplines, constructs of different disciplines or constructs of one discipline or subdiscipline.

Borrowing and blending are related to combining and can be utilized also in connection with combining (see e.g. Oswick, Fleming and Hanlon, 2011 and Whetten, Felin and King, 2009). In context with multiple disciplinarity, these terms have to a great extent the same meaning as in everyday parlance. Borrowing means adopting an idea, a framework, a model or a theory from another discipline with or without changes. Blending means the mingling or mixing of two or more ideas, frameworks, models or theories from different disciplines. In fact, the building of the advanced forms of combining involve some kind of blending and borrowing.

Actually, combining, borrowing and blending may be performed within one discipline or as an interdisciplinary or transdisciplinary action across the boundaries of different disciplines. The utilization of combining, borrowing and blending presupposes the careful consideration of the nature of these concepts and the characteristics of the theory building or practice planning in question (cf. Corley and Gioia, 2011).

Often a phenomenon of some discipline, subdiscipline or branch of subdiscipline is described by two or more models. Sometimes these models can be complementary so that the phenomenon can be better described by a model which is a combination of the original models. This kind of combining can be called multiple modeling.

Multiple modeling may be interpreted as subspecies of multiple disciplinarity. In any case, also multiple modeling can be carried out in different levels. These could be analogous with the different levels of multiple disciplinarity.

Multiple modeling and multiple disciplinarity can often become close to each other. This fairly common situation is in question if the original models in multiple modeling have different scientific backgrounds like in combining marketing mix and relationship marketing approaches as described in the next section. By nature, this kind of combining is a multiple modeling task which leads to the combined marketing model(s) that are more or less interdisciplinary for the scientific difference of the original models.

It is probable that the today's and future methods of multiple disciplinarity are analogously suitable for multiple modeling analyses. The required applications must be solved case by case as also in multiple disciplinary analyses generally.

3. ILLUSTRATIVE STUDIES CONCERNING THE UTILIZATION OF MULTIPLE DISCIPLINARITY AND ITS METHODS IN MARKETING

The four earlier empirical studies of marketing management (see Lehtinen, 2007 and 2011) are here used to illustrate the combining as a method towards multiple disciplinarity and multiple modeling in marketing. The main objectives of these studies were following:

First, bringing forward the underlying idea and rationale for combining the mix (or parameter) marketing and relationship marketing approaches as well as the arguments explaining why they should be combined. The marketing mix and relationship marketing approaches have really been the major marketing approaches during last twenty five years.

Second, outlining new frameworks in order to combine the essential and compatible elements of the major approaches.

Third, studying empirically how well the opinions and actions of marketing directors mesh with the combinatorial frameworks. (Lehtinen, 2011).

According to all empirical studies (see Lehtinen, 2011), both approaches were simultaneously used in almost all companies of the respondents of the three surveys. Relationship marketing approach appeared to be used slightly more often than the mix approach. There was fairly often the use of some combination of both approaches. The results also indicated that a clear majority of the respondents supported further integration or combining of the approaches in their companies and even generally.

When the respondents had completed the questionnaires all respondents got an opportunity to comment on marketing issues freely without any leading remarks. Every time several managers expressed their surprise that researchers could still debate the superiority of one approach over the other. The managers clearly thought that the researchers should concentrate on the analyses of combining the most used approaches, which they considered to be marketing mix and relationship marketing. Most managers hoped for the development of proper methods or models to combine approaches. The findings showed that most companies already applied both approaches at least in parallel. Many managers stated that their companies had used some kind of combination approach. Moreover, several managers emphasized that the combining of approaches would match current practice or at least the combining aims of companies. Therefore, it can fill the gaps between the present theoretical approaches and practice. The managers also thought that the developed combining models would allow greater marketing efficiency and better results.

The main results and conclusions concerning the coexistence of different approaches in the three wide studies (Brodie et al., 1997, Pels et al., 2000 and Coviello et al., 2002) were rather compatible with the results of Lehtinen's survey studies described above.

The results of the case study and the discussions concerning the marketing experiences of the managers of the case company clearly supported the results of the other studies (see Lehtinen, 2011). Therefore, taken together all seven studies showed that some kind of combining was sought and already also used. The combinations varied from parallel coexistence to advanced combinations.

All in all, the empirical results of studies including the comments of discussions strongly emphasized the utilization of at least two different approaches concerning marketing management. Actually, this can be interpreted also as a clear evidence in favor of multiple modeling and in this case even interdisciplinarity. The same evidence can be in fact seen in the gaps between practice and current theories though the gaps are also influenced by the conceptual undevelopment.

The findings of the studies can be used in marketing management practice at least in a modified form. The applications naturally require a lot of time, attention and business competence of any company that wants to consider utilizing these new opportunities.

When thinking the use of combined model(s) the company (i.e. its managers) should first determine its attitude in regard to combining. If and only if it considers that combining is of practical importance, a plan of operations specifying objectives and a time-table should be made. Then the systematic combining work should be started and carefully completed.

In any case, one remarkable problem of combining is the compatibility of the forms of the theories and models that are combined. The other big problem is the manner of combination itself. However, I suggested a fairly advanced combination model in my earlier articles (see e.g. Lehtinen 2011).

Borrowing and blending are sometimes used methods or procedures towards multiple disciplinarity in marketing theory and empirical research of marketing. For example, many sociopsychological, mathematically formulated models have been utilized in consumer behavior research which is quite independent and behavioral area within marketing research. In fact, there was even a period of several years when multidimensional choice models were in the central focus of marketing (see Lehtinen, 1974 and *Journal of Marketing Research* 1975-1980). Anyway, these kinds of borrowings in marketing have been rather fruitful. Sometimes borrowing and blending (only one or both) can be integrated with the use of combining.

There are studies utilizing multiple disciplinarity or modeling also in the other areas of business administration. For example, Gabrielsson, Eronen and Pietala (2007) combined theory of international business and economic geography when they studied the internationalization and globalization of companies as a spatial process. They developed a graphical model that depicts both the attractiveness of target regions and the spatial patterns of target countries which are borrowed from economic geography.

4. CONCLUSIONS

Multiple disciplinarity and modeling provide very important possibilities throughout research and practice. This phenomenon is not yet sufficiently utilized. It is not even conceptually clear. However, the utilizing of multiple disciplinarity and multiple modeling can already widen the artificial boundaries of disciplines and models to match the scope of real scientific problems (cf. Allen et. al., 1998, Weingart, 2000 and Lattuca, 2001).

There are several basic reasons why multiple disciplinarity and multiple modeling are extraordinarily important and why they should be pursued:

First, universe, world and human life are multiple disciplinary by nature. Consequently, a lot of comprehensive problems, especially the most important and interesting ones are multiple disciplinary. These real problems are seldom restricted to the boundaries of disciplines.

Second, many smaller problems also require several perspectives and visions before solving.

Third, the development of society, economy and technology continuously produces new as well as more difficult, more comprehensive and/or more multidimensional challenges.

Fourth, extraordinarily important tasks in research and practice are asking the “right” questions and formulating the comprehensive hypotheses.

Fifth, many practical operations, for example planning a new business can be so complex that multiple disciplinary skills are needed.

All these basic reasons advocate the building of a teams of experts from different disciplines because experts with different disciplinary background observe, read and react differently. Each expert can only contribute to a limited part of the complex problem.

It may be expedient to state also here, that multiple disciplinarity exists rather seldom so that two independent disciplines are combined. Often combining appears in form where two models of one discipline or two disciplines are somehow put together. The level of borrowing and blending is usually analogous. Consequently, multiple disciplinarity is often actually multimodeling. In fact, this was the case in Lehtinen’s studies (see 2011) cited before. However, the combined models of these studies can be considered interdisciplinary for the scientific difference of the combined (original) models. The marketing mix approach is rather normative and rationalistic and the relationship marketing approach is rather positive and behavioral by nature.

The reasons of striving for multiple disciplinarity and modeling concern marketing as a target area of research and practical action. Consumers’, retailers’, wholesalers’ and producers’ behavior at their markets is an essential part of general human behavior. Consequently, it can be partly explained with the help of behavioral theories and models of psychology, sociopsychology and sociology. This means that marketing is a highly multiple disciplinary subdiscipline of business administration by nature. For example, the relationship marketing approach largely has its origin in behavioral visions although nowadays there are also quite normative CRM-models in relationship marketing.

Multimodeling and the examination and illustrations of multiple disciplinarity and modeling in marketing management are new. In the illustrative studies there are many new results like the explication of the ideas and rationales for combining, different combination frameworks and the empirical analysis concerning the new idea and frameworks. The results also suggest that a paradigm shift in marketing management might eventually occur from the major approaches to some combination(s) of these approaches.

Therefore, this article challenges contemporary marketing management and research as well as researchers of marketing management in many respects. In fact, combining the mix marketing and relationship marketing approaches may be the greatest possibility for multiple modeling and

combining in marketing management because of the comprehensiveness, importance and structural compatibility of the original, combined approaches. Consequently, it is impossible to see all possibilities at this moment. Do they really extent to the paradigm level?

The results of the illustrative studies indicate that the roles of combining as well as multiple disciplinarity and modeling are probably increasing in the future reseach and practice in marketing. This concerns researchers, educators, managers etc. Marketing as a general phemenon is connected very comprehensively with human life. For these reasons alone the marketing applications of multiple disciplinarity and modeling will be remarkable and extensive.

The basic ideas, rationales and methods of multiple disciplinarity and modeling are probably valid in other sub-disciplines of business administration. For example, in accounting, in finance as well as in management and organization there are both rationalistic research and behavioral research. Thus some combinations of approaches in these main areas of business administration can be possible and reasonable. On the other hand, e.g. organizational research has largely borrowed concepts and constructs and also researchers from neighboring behavioral disciplines such as psychology and sociology. For example, Oswick, Fleming and Hanlon (2011) listed fourteen remarkable contributions of organization and management theory and only one of the proponents of these contributions was primarily a researcher of business administration. There are also studies utilizing multiple disciplinarity or modeling in the many other areas of business administration as we saw before.

For logical reasons it is easy to believe that multiple disciplinarity and modeling as well as their methods could and should be generalized to and utilized in very many disciplines in additon to business administration. It is easy to understand that they could be extended to the neighboring sciences such as economics, social sciences and political sciences in addition to business administration (Lehtinen, 2011). But probably the scientists in most research fields should experience multiple disciplinarity and modeling as a fundamental challenge and possibility when developing theory and practice.

This discussion can be summarized also as a following practical double challenge to researchers of any discipline: Every researcher should clear up the possiblities of multiple disciplinarity and modeling and their methods from the viewpoint of his/her study. Therefore, every researcher should attain good knowledge about multiple disciplinarity and modeling. Analogously, this concerns also e.g. educators and managers at least to some extent.

Naturally, the most basic challenge concerns the researchers of multiple disciplinarity itself. The phenomenon still requires careful and creative research work in order to achieve its full maturity and usability.

Finally, it is important to state that at least not yet there is one and only conception concerning multiple disciplinarity and modeling. Therefore, we must be exceptionally careful and flexible when utilizing multiple disciplinarity and modeling in different fields of sciences. On the other hand, several disciplines or models are not always needed in solving scientific problems.

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