Innovation Offshoring by Small and Medium-Sized Enterprises – Establishing the Research Gap

Michael Gusenbauer[1(✉)], Silvia Massini[2], and Matthias Fink[1,3]

[1] Institute for Innovation Management, Johannes Kepler University Linz, Altenberger Straße 69, 4040 Linz, Austria
michael.gusenbauer@jku.at

[2] Manchester Institute of Innovation Research, The University of Manchester Business School, Booth Street West, Manchester M15 6PB, UK

[3] Institute for International Management Practice, Anglia Ruskin University, East Road, Cambridge CB1 1PT, UK

Abstract. Research on innovation offshoring (IO) has increased substantially over the last decade. IO is (still) widely regarded as the domain of multinational enterprises. Even though more and more researchers are claiming that small and medium-sized enterprises (SMEs) also practise IO, so far, the particularities of SMEs have been widely neglected. This is unfortunate, since a small business is not a little big business and thus most of the IO research lacks generalizability to SMEs. This study uncovers the gap and extends the empirical evidence available from scientific publications, obtaining a more current and accurate picture of IO research on SMEs. We directly approached academic experts through an online survey to collect information regarding the specific characteristics of SMEs relevant for IO, managerial needs arising from those characteristics and theoretical approaches appropriate to framing SME-specific IO research. This study provides a toolkit and roadmap for subsequent IO research aimed at SMEs.

Keywords: Offshoring · Outsourcing · Innovation · Small and medium-sized enterprises · Author survey

1 Setting the Stage

Offshoring of innovation (IO) is a phenomenon that has steadily gained importance over the last decades, in both practice and academic research. Over time, researchers have looked at the phenomenon from different angles. Compared to the a priori sourcing situation of a firm, IO itself is a management innovation, geographically and organizationally reconfiguring the innovation value chain (i.e. the innovation of the innovation process). Offshoring is a socio-technical business innovation that provides a rich new source of competitive advantage. To succeed, offshoring requires skillful management of both people and technology [1]. The reasoning behind and concrete layout of the IO operation is unique in each case. For some, it provides an enhancement of capabilities and resources, increased flexibility or reduced costs. All these potential opportunities that can be gained from IO depend greatly on the set of goals of the planned operation and the concrete sourcing arrangement (i.e. mode, governance, organization).

I. Oshri et al. (Eds.): Global Sourcing 2015, LNBIP 236, pp. 156–170, 2015.
DOI: 10.1007/978-3-319-26739-5_9

The authors of this study have started the Innovation Offshoring (IO) Initiative (see ifi.jku.at), which aims to (1) track and systematize the body of knowledge of IO research and (2) revaluate the underlying definition of the phenomenon of IO. This study presents the second step in the initiative and follows up on findings from a systematic review of IO literature, in which the authors systematized the fragmented picture of the field of IO. They identified a great lack of evidence-based insights into IO, a view that is shared by many scholars in the field [2–7]. Lewin and Volberda [8] even note that research on IO is still in its infancy.

The IO Initiative has had to put up with the problem that academia does not know collectively what has already been researched by individual academics regarding IO. This is because contributions to scientific journals and conferences, as a process of sharing and transferring evidence-based knowledge between different fields of research, and even between different networks of researchers, are not effective. The fragmentation of the scientific community and the specialization of the individual researchers hamper the diffusion of new insights. This is even exacerbated by the incommensurability of the technical languages. The very same term often has different meanings in different fields of research. This is especially true for key concepts of IO and, most importantly, the phenomenon itself. To overcome this hurdle, the IO Initiative started from a generic understanding of offshoring and innovation and set out to conduct a systematic literature review (SLR) of the empirical evidence base on IO. After elaborately categorizing the existing body of knowledge and reviewing 331 academic publications in the field of IO (starting from a total set of 14,119 hits), the researchers defined the phenomenon as the *foreign sourcing of activities , which are critical for implementing significantly improved or new-to-organization goods, services, processes, or methods in marketing or the organization – a definition that tries to delineate the field of IO sharply and clearly*.

Furthermore, the IO Initiative engaged in mapping the themes driving the discourses in empirical IO research and linking them to each other. This activity led to a map of IO research (see Fig. 1). With this map, it was possible to track the elements of the discussion and the links between these research topics, formed by empirical IO research: e.g. the level of autonomy of foreign R&D units in an emerging market *(sourcing procedure: bubble E)* is negatively associated with the regulatory influence they face *(sourcing location: bubble D)*. The diameters of the circles show the significance of each of the categories, while the thickness of the lines reflects the amount of studies investigating relations between multiple topical areas.

The IO Initiative found IO to be a strategy regarded as the domain of multinational enterprises (MNEs). IO research has so far mainly taken the perspective of the large corporations. Indeed, IO is not a new phenomenon for MNEs, at least not for those from industrialized countries, evidence of whose R&D offshoring dates back to the 1930s [9, 10]. Recently, however, IO has become a reality for business practice in SMEs too. This new type of internationally active company has discovered the opportunities of IO as, empowered by advances in IT, the growing availability of specialized foreign service providers and standardized services, SMEs have started to discover that IO can enhance their limited innovation capabilities [8, 9, 11–13]. Zedtwitz et al. [14] note that, in the current business environment, even SMEs can afford IO.

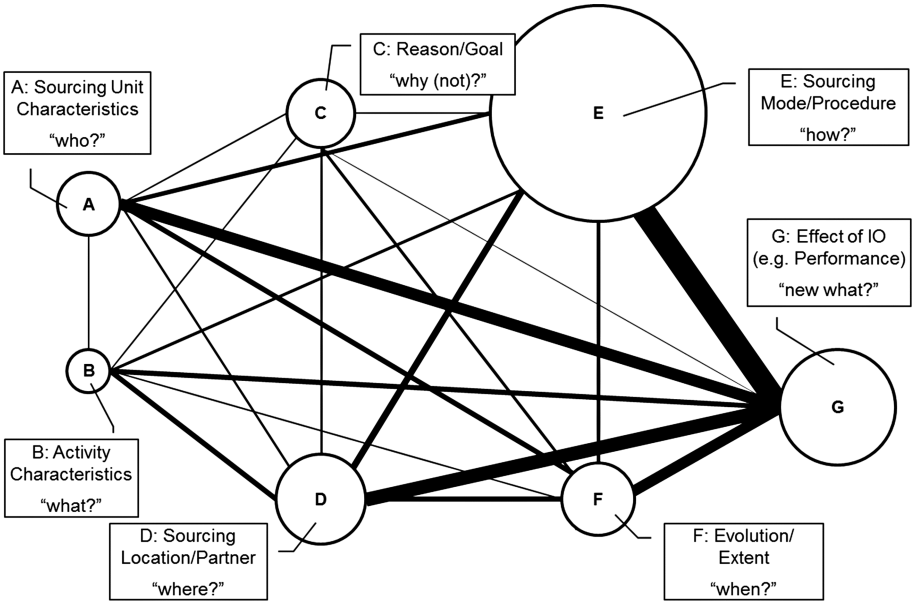

Fig. 1. Thematic map of IO research

We think that management knowledge that is developed with regard to large companies cannot be transferred to SMEs directly without examination. Against the backdrop of the insight that a small business is not a little big business [15], we assume that this size difference manifests in management practices that also influence IO. Therefore, in the context of IO research too, a specific investigation regarding SMEs seems to be necessary. However, the specific needs of SMEs have not been the focus of IO research so far.

We have identified two fundamental shortcomings of IO research regarding SMEs. First, research greatly neglects the particularities of SMEs by considering MNEs as the natural research subjects. Therefore, most of the existing studies lack generalizability to the case of SMEs. The topic of SMEs engaging in IO is largely unexamined. This void represents a significant research gap. In fact, investigations of the IO of SMEs are almost non-existent. Among the 331 studies covered in the IO Initiative's research, only a few consider SME-specific characteristics such as size or revenue thresholds as variables. In total, only 19 studies explicitly focus on SMEs in their research (sampling SMEs alone or as part of a larger sample) (Fig. 2).

In it is clearly visible that research into SMEs' IO only very fractionally covers the fundamental questions. Some possible connections between the thematic questions (i.e. bubbles) are missing entirely. Besides the quantitative evidence from the systematic literature review, other IO authors also point out the research gap: Massini and Miozzo [2, p. 1224] find that *"[…] small and medium-sized companies, in general neglected by the mainstream international business literature, seem to be adopting innovation offshoring strategies in order to augment their limited innovation capabilities."*

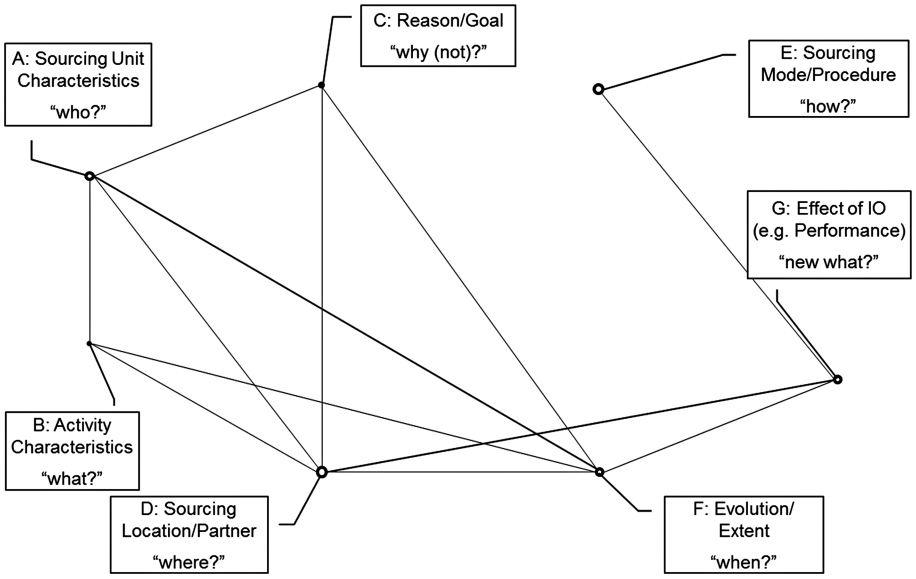

Fig. 2. Thematic map of IO research with a focus on SMEs

This lack of knowledge is extremely unfortunate, as SMEs are by far the dominant size-class and, thus, practice needs to be informed about the potential benefits and risks of IO conducted by SMEs. Empirical data are urgently needed to address these blind spots in the academic research.

Second, there are contradictory claims concerning SMEs' IO. It has not been fully accepted among scholars, as some still deny such firms possess the capabilities, resources and managerial skills to pursue this strategy. Carmel and Nicholson [16], for example, note that for SMEs offshoring proves to be a major undertaking due to their limited resources. On the contrary, others (e.g., Dossani and Kenney [13]) point out that SMEs (as well as larger firms) apply IO, clearly refuting the notion of missing offshoring capabilities. In fact, Di Gregorio et al. [12] and Lewin et al. [9] note that SMEs indeed have limited home-based innovation capabilities and therefore predominantly use IO to counteract these shortcomings. Contrary to large companies, they *enrich* their innovation process by offshoring innovation rather than replacing domestic innovation activities with foreign ones [12, 13, 17, 18]. Prater and Ghosh [19] note that SMEs are typically more innovative and innovate faster due to their greater vulnerability compared to large MNEs. SMEs seem to benefit relatively more from advancements of IT as they enhance their limited capabilities and allow them to do business abroad, beyond simple exporting. SMEs are more and more realizing the opportunities of outsourcing and offshoring. These claims are strongly supported by the research of Di Gregorio et al. [12], who find that the offshore outsourcing of services enhances the international competitiveness of SMEs. They find that SMEs are generally keener on enhancing their limited capabilities or getting improved market access than on reducing costs. Offshoring is seen as extending the possibilities for expansion for smaller firms, letting them focus on their core capabilities.

In order to gain a current picture that is not blurred by the various forces present in review procedures as part of the publication process in academic outlets, we investigated whether IO topics are indeed size-contingent, by directly approaching academic authors with expertise in the fields of IO and SME internationalization. We presumed that these groups of researchers would have the greatest expertise on the subject of IO by SMEs, and therefore sought to gain their knowledge in order to establish and explore the research gap on SMEs' IO. The resulting sample consists of 1,066 authors who have contributed a total of 549 publications to renowned academic journals. Via an author survey, we asked fundamental questions concerning IO in SMEs that should prepare the field for further investigation. We found out whether SMEs were a specific group of firms that have specific managerial needs and whether special theories were needed to research IO in SMEs.

Contentwise, the study serves mutually reinforcing objectives: We contribute to the scientific discourse and practice in several ways: first we establish the gap in IO research that takes into consideration the specific characteristics and managerial needs of SMEs. We advance the IO Initiative, which has identified the lack of empirical research in this specific field, by demonstrating that such research would in fact be needed. Second, our findings provide rich insights regarding which facets of research into IO are especially relevant in the context of SMEs. This fine-grained list of aspects provides an elaborate roadmap for fruitful further research. Third, we provide a first insight into the appropriate theoretical approaches that are perceived as feasible for such research efforts.

On the practical level, we take a first step towards SME-specific recommendations for action in IO. The managerial recommendations developed based on our findings will better meet the specific requirements of SMEs. At the same time, based on such SME-specific IO research it is easier to draw tailored implications for practice. Furthermore, we inform those responsible for the creation of the regulative framework conditions regarding the specific needs of SMEs, in their endeavour to peruse IO operations.

In sum, this investigation provides the groundwork for a large-scale quantitative investigation into SMEs' IO. Only with the augmented knowledge obtained from the examination conducted through this step, can the following investigation be assured of its relevance, target the right research objects and ask the right questions, well-grounded in the theoretical discussion.

The remainder of this article develops as follows: after setting the stage by defining the key constructs and presenting a brief overview of the systematic review of IO literature, we develop a set of research questions that are the focus of the author survey. Finally, we discuss the empirical findings and draw implications for research and practice.

2 Empirical Study

This study builds on the findings of the first step of the IO Initiative, especially its newly developed definition, thematic map and the literature base of IO publications. The establishment of the gap in the research on SMEs' IO was achieved through an author survey targeting academic experts in the research fields closest to SMEs' IO. We

collected expert knowledge from IO and SME internationalization scholars regarding (1) the specific characteristics of SMEs that are relevant for IO, (2) the specific managerial needs arising from those characteristics and (3) the specific theoretical approaches appropriate to framing SME-specific IO research.

We directly approached authors, as experts in their fields with ample theoretical and empirical knowledge to tap the socialized knowledge-base of the community. The aim was to collect the insights on IO (and especially on the IO of SMEs) that the individual researchers had gained in their scientific work, directly from them. We argue that there are more insights available at the level of the individual researcher than can be extracted from publications at the level of the research community. One reason for that is the unpublished work that never finds its way into the public arena. A second reason is the long delay prior to publication, due to complex review processes and huge backlogs in editorial offices. Moreover, tapping knowledge directly from the source also helps one to collect information that has not been blurred by the interventions of reviewers and editors during the publication process. At the same time, however, this approach is not feasible when the quality control of peer-review regimes is needed. As there is no wrong opinion on the topics covered by this survey, the filter of review procedures is not needed and would only be harmful, as described above.

Asking SMEs about their IO directly requires this preceding step to be taken first, in order to render the research questions more precise and to specify the phenomenon in the first place. The common body of knowledge of the IO and SME internationalization researcher community has a high level of aggregation and stems from a number of sources and data points, notions etc., that have been collected over time. The overall assessment of the current state of SMEs' IO gives a picture of the spectrum and variance of the researchers' opinions. As has already been noted, the opinions on SMEs' IO differ greatly among scholars. It will be of special interest to examine whether there are systematic differences in the perceptions of SMEs' IO between different groups of scholars. All in all, we believe that, by providing the toolkit and roadmap, the preceding empirical investigation into the IO of SMEs will (1) be more efficient in terms of sampling, (2) be more precise in terms of the questions asked and (3) subsequently more successfully advance the discussion of IO in SMEs. Furthermore, (4) the question of the size-dependence of IO impacts on many other related management fields.

The empirical data were collected via a standardized web-based online survey asking authors to give their assessments, so that we could track the notions of the individual researchers. The email linking to the online survey at Unipark.com contained customized information obtained through the preceding systematic literature review, to facilitate connection to the IO debate.

Before distribution, we were able to pre-test our survey on participants at the 2015 Global Sourcing Workshop, with whose help we improved the design of the questions. In a focus group that was held during the 2015 AIB-UKI conference, the preliminary interpretations of the findings of the author survey were discussed with experts in the field.

The sample consists of 1,066 academic authors who have been published in peer-reviewed academic journals of above-average quality, in the fields of IO and SME internationalization. The sample of *IO researchers* was based on the research of the IO

Initiative, which identified 633 authors who published IO research between 2003 and 2012. The sample of *SME internationalization researchers* was identified through a keyword search of the most relevant SME and entrepreneurship journals (according to the Association of Business Schools ranking), which resulted in a sample of 433 authors. In total, we sent out 1,041 emails. Even though we used up-to-date email information gathered using a web search of all authors, we could not find email addresses for 25 authors. We then received notification of 142 undeliverable emails. Therefore, we were able to reach the inboxes of 527 IO authors and 374 SME internationalization authors. Due to spam filters and outdated email addresses, the number of individuals actually reached is presumably lower than this. Therefore, we reached a maximum of 901 authors with the invitation email and two follow-up reminders.

We received a total of 134 usable responses (overall response rate = 14.7 %). The response rate of 13.4 % (50 usable responses) from the SME internationalization authors was only slightly lower than the response rate of 15.9 % (84 usable responses) achieved among the IO authors. For data analysis, we used the software package SPSS 22 to calculate descriptive statistics and mean comparisons between subsamples of the dataset. In the following, we first unfold our guiding research questions and then present and discuss the findings.

3 Results

3.1 SMEs a Specific Group Regarding IO

It is widely accepted that "a small business is not a little big business", indicating that SMEs have different qualities, needs and capabilities that cannot be associated directly to their size but are linked to their specific attributes [15]. It is not enough to investigate SMEs as part of a sample involving all size groups, as SMEs have to be examined in their own context. Roza et al. [20] point out the gap in IO research on SMEs, stating that "firms of different sizes use offshoring in a different way". Although they suggest some differences between small and large firms, including that SMEs overcome their resource constraints to also (along with large firms) engage in IO, these findings need further validation and exploration. Therefore, we formulate our first research question as follows: *Are SMEs a specific group regarding IO?*

We asked the authors about the relevance of IO for the international business activities of both small and large firms. IO was rated relevant for large and small firms by both author groups (see Fig. 3).

However, the relevance for large firms was, on average, rated higher than that for SMEs. In fact, only every fourth researcher thinks that IO has the same relevance for both SMEs and large companies, indicating the specificity of SMEs. This finding is not surprising given the fact that MNEs' IO has received much more attention in research and among the public. It is also very clear that researchers who are more interested in IO research perceive the importance to be higher for both company size groups. Interestingly, the IO authors rated the relevance of IO for international business activities higher for both small and large firms than SME authors, arguably due to the fact that they are more familiar with IO in general. However, the identified differences between

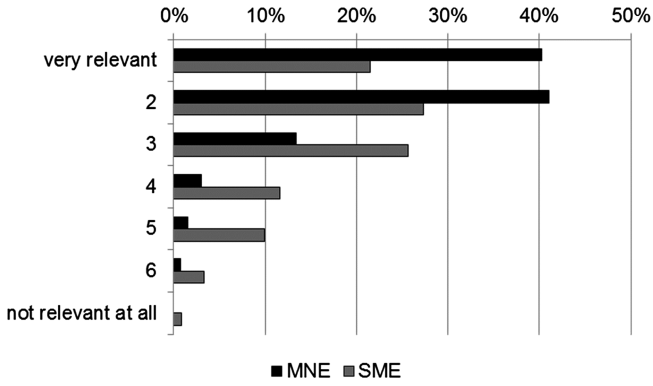

Fig. 3. Relevance of IO for MNEs and SMEs

the perceptions of IO and SME researchers are not statistically significant. Building on the first finding – namely, that researchers believe in certain differences between size groups impacting on the relevance of IO for international business activities – in the next step we investigate which firm characteristics are especially important for the decision to engage in IO. We based the selection of the firm characteristics on a recent critical review of the literature on SME management by Frank and Roessl [21], who identify a number of SME characteristics that go beyond the quantitative indicators. They argue that, for management science, definitions of SMEs that only take into account quantitative indicators of firm size – and ignore the firm characteristics that are antecedents or consequences of firm size – miss those dimensions of what SMEs are about that account for their particular managerial needs. From their study, we extracted 18 dimensions that have been used to define SMEs in existing studies.

From the author survey we learned that the most commonly used criteria for defining SMEs are not the ones that have the greatest impact on IO. Among the commonly used criteria are headcount, turnover, company age, number of hierarchical levels and legal form, which are all relatively easy to track and easily accessible (from secondary data providers). Therefore, using the common notion of SMEs, it is less likely that one will find significant offshoring within this group of companies. Interestingly, other criteria that are not so commonly found in the literature, such as the degree of formalization and transparency, are not seen to have an impact on IO either.

What, however, seem to substantially influence any firm's decision to offshore innovation, are primarily so-called "soft" managerial factors such as the managerial skills, instruments and capacity of the top management, the firm's planning and strategic thinking, its entrepreneurial orientation/mindset, its organizational learning competencies and its management of innovation and change (see Fig. 4). Besides the question of how a company manages its affairs, internal knowledge (i.e. number of specialists, knowledge concentration) and the industry within which it operates are factors with a significant impact on a firm's decision to offshore innovation. All these "soft" characteristics do indeed correlate with size, age and other quantitative measures. For example, the management of innovation and change (i.e. organizational implementation

competencies) is assumed to be more structured and advanced in larger or more senior firms with more established procedures and skilled management.

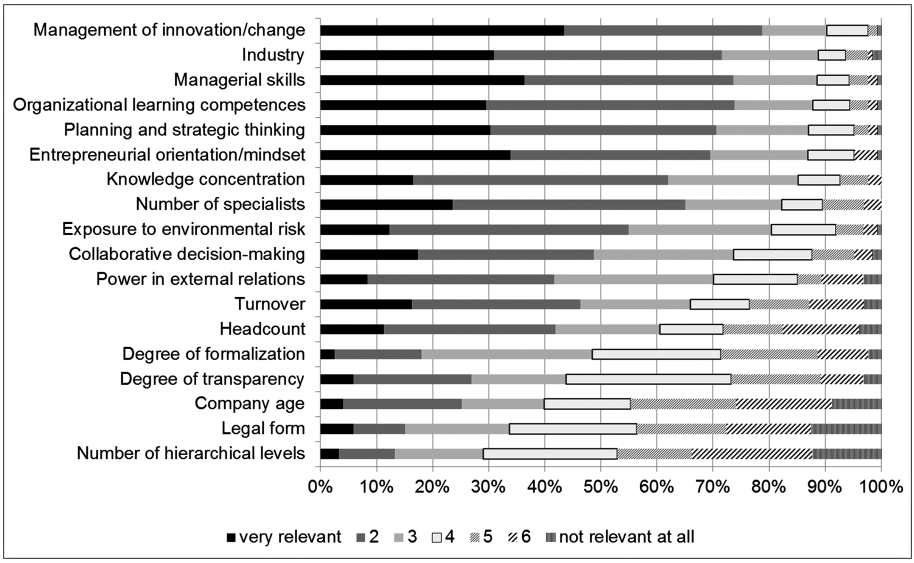

Fig. 4. Importance of SME characteristics for the decision to engage in IO

Interestingly, the experiences and notions of both the IO researchers and the SME internationalization researchers point in the same direction. There are only marginal differences in their answers concerning the relevant characteristics that impact on the IO decision. This indicates that these findings are grounded in a common understanding of the phenomenon of IO, stemming from experience and interaction with practice. By asking two distinct groups of academic authors, we have found that both groups have similar notions of the field of IO. Both see differences between types of companies (large firms and SMEs).

As a result, we have found that IO is not specifically different for SMEs, but rather for the "mature firm" that has pronounced managerial skills and capacities, a supportive hierarchical layout and high absorptive capacity. This profile matches basically any vital company with a good track record. Of course, these characteristics only present dimensions, along which endless typologies are possible. It remains for empirical firm-level research to uncover existent typologies and their IO-related particularities.

3.2 The Specific Managerial Needs of SMEs Engaging in IO

The particularities of SMEs might also bring about specific managerial needs when it comes to IO. Managing and organizing IO in SMEs presents specific challenges, and the lessons learned from IO in large firms cannot be transferred to the context of SMEs. Consequently, there is a need to further explore some of the unique management complexities surrounding IO and SMEs in order to further the debate.

The very fundamental SME-related questions, such as the extent, mode and evolution of IO, the motivation for it, and obstacles to it, have not yet been fully investigated. Therefore, we formulate our second research question as follows: *Do SMEs have specific managerial needs regarding their IO operations?*

SMEs have specific managerial needs, which are attributable to their specific characteristics. As we have already learned, the relevant IO characteristics for SMEs (and firms of all size groups) are "soft factors" rather than "hard factors". Indeed, these soft factors (i.e. managerial skills, learning capacity, experience, etc.) heavily influence the business behaviour of SMEs.

We asked the authors questions about the specific managerial challenges for SMEs and found strong support for the claim that IO in SMEs requires a different management practice. We identified seven topical clusters that were mentioned at least five times; the remaining seven clusters were less frequently mentioned. By far the most serious obstacles to IO are found in the "management at home". SMEs often lack both the managerial skillset, due to limited experience and capabilities, and the managerial resources needed. Compared to more established companies, it is relatively more expensive to retain staff that can be assigned exclusively to managing IO. Along these lines, the internal organization and the management of IO at the operational level pose significant challenges for SMEs. For example, the coordination of teams across nations does not seem to be a task for which SMEs tend to have a special skillset. These managerial drawbacks are especially true for captive operations, which not only need more financial funds, but are also a constant commitment and need permanent managerial attention. Furthermore, we found that "relationship work with the foreign IO partner" was considered the second most important challenge for SMEs by the authors we surveyed. Drawing up reliable contractual agreements between partners and managing relationships with partners do not seem to be easy tasks for SMEs. This hinders the creation of lasting relationships, in which the full potential of IO can unfold over time. Another major managerial difficulty for SMEs is the "identification and selection of suitable IO partners". This shortcoming mostly depends on how internationally experienced an SME is. Better connections to relevant offshoring destinations and a good network of foreign partners help SMEs to find adequate IO partners.

Other significant challenges mentioned by the surveyed authors were the "limited learning capabilities" of SMEs and their "limited resources", especially financial resources. Limited resources also have a negative effect on learning capabilities as SMEs cannot afford trial-and-error testing. Additionally, SMEs often do not have sufficient "capacities for knowledge management and transfer" that would enable them to engage in IO. Their absorptive capacities are assumed to be inferior to those of large companies.

In order to dig deeper into the particularities of SMEs engaging in IO, we asked the authors about the relevance of IO topics to SMEs compared to large companies. These topics are the same as those used to classify the IO research publications in the SLR guided by broad questions (i.e. who, what, why, how, when, where, new what). It seems evident that topical areas are in fact not always relevant for SMEs, even when they are for large companies. Along the same lines, what is interesting for small companies can be relatively uninteresting for large companies. Figure 5 presents the findings from the author survey.

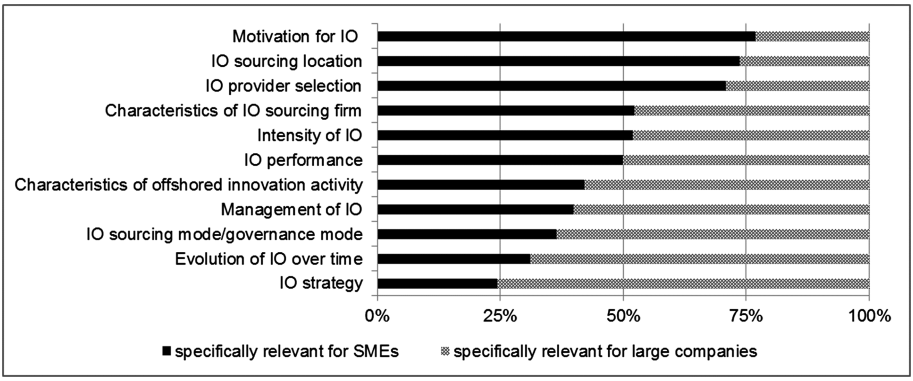

Fig. 5. Relevance of topics for SMEs or large companies

From the results, three groups of topical areas emerge, showing different levels of importance for firms of different sizes. (1) The topics of IO provider and location selection seem to be relatively much more important for SMEs. With smaller networks and less international know-how and experience, it seems harder for SMEs to connect with foreign partners and locations. The authors also expressed the belief that IO motivation was more relevant for SMEs than for large companies. An explanation could be that, because these firms are rather founder-centric, decision making is fast and hierarchies are flat, the justification for and risk-benefit assessment of IO is in the hands of a few and more prone to gut feeling. (2) The second group of topics neither seem to be specifically relevant for SMEs nor for large companies. The characteristics of the sourcing firm, the intensity of IO and IO performance are seen as equally relevant for both groups of firms. (3) Finally, for large companies, topics like IO strategy and evolution of IO over time (i.e. the development or advancement of IO operations) seem to be very important topics. It is not surprising that larger, more structured companies tend to have strategies at hand and have the capability to think of IO in the long term as a practice that evolves over time. Furthermore, the management of IO and the IO sourcing or governance mode, questions related to the "how" of IO relations, seem not to be the focus of SMEs.

3.3 A Toolkit for Research into the IO of SMEs

There is a broad range of theories used by IO research that originate from fields such as international business, supply chain management, organizational studies, innovation management, knowledge management and general management. None of these, explaining phenomena within the field of IO, looked at specifics of SMEs. However, there is a rich set of theories that examine the characteristics of SMEs or that can be used to explain the differences between certain groups of companies. Small business research, for example, typically highlights two disadvantages that SMEs are likely to face in the innovation process. First, the liability of smallness denotes the lack of a critical mass of resources needed for innovation projects [22]. Second, the liability of outsidership refers to the dearth of SMEs engaging in new management approaches such

as IO [23]. Looking at the limited capabilities of SMEs, the necessity of SME-specific parameters becomes evident and frames the third question that guides our research: *Does research into the IO of SMEs require specific theories?*

A majority of the authors surveyed stated that SMEs present a special case of IO and their study requires distinct theoretical approaches. Nearly two thirds (61.5 %) of the respondents believed that, for research on IO in SMEs, specific theories were required. Compared to the IO researchers, the SME researchers significantly ($p = .010$) more often indicated a need for specific theories. This is not surprising as this group of researchers knows more about the specific needs of SMEs and the distinct theories that come along with these needs.

Researchers agreeing to the notion that SMEs need specific theoretical approaches also rated SME-specific theoretical approaches as highly relevant for IO research. Even though universal constructs were also deemed suitable for explaining SMEs' IO, the concepts of the liability of newness and smallness were rated as most relevant. These two concepts are traditionally used to explain SME-related issues. Figure 6 summarizes the perceived relevance of various theoretical approaches, according to the surveyed authors.

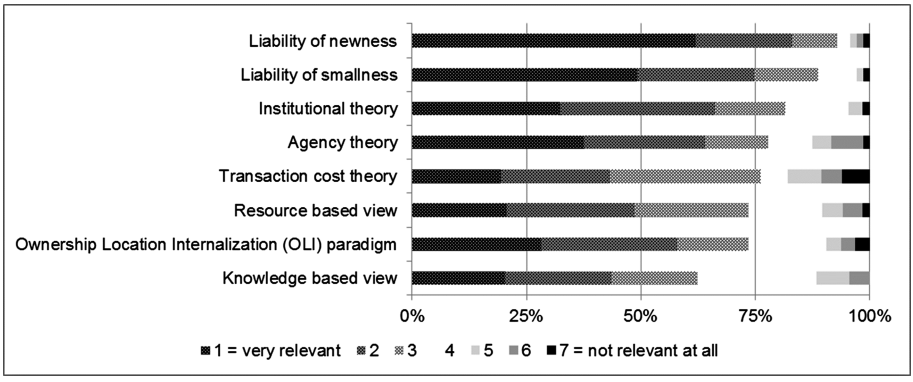

Fig. 6. Relevance of theoretical approaches to research on SMEs' IO

In addition to the theories and theoretical concepts that are frequently used in IO research, the authors supplemented these with concepts suitable for explaining SMEs' offshoring: network theory and organizational learning theory were the most cited ones not covered in the list provided in Fig. 6. Other significant theories mentioned for explaining SMEs' IO were entrepreneurship theory, evolutionary theory, growth theory and dynamic capabilities.

These concepts either explain the necessity of IO for SMEs or specific subquestions related to the IO activity of SMEs. As noted before, these subquestions can be classified using the framework as visualized in Fig. 1 and thus connected with the corresponding theoretical concepts.

The authors who indicated that there was no need for a distinct theoretical approach for explaining SMEs' IO argued their point in various ways. The majority of these authors believed that there was one theory that could explain IO for both SMEs and large companies. Basically, they had two lines of argument:

First, theory is universally true for both small and large firms as they are inherently the same, functioning according to the same universal principles of management. In other words, the reasons why companies offshore their innovation are fundamentally the same, regardless of firm size.

Second, even though SMEs and large companies are in fact different in some dimensions, the fundamental principles still apply for both. A holistic approach is needed for all firms, in which the characteristics of small or large firms present distinct types. The theory should then hold for all situations.

A third view was that, while sticking to existing theories and keeping them as general as possible, these concepts should be adapted to the context of smaller firms. Like in a car workshop where the technician adjusts his torque wrench to the bolt, in our case existing theories ought to be adapted to fit SMEs while still staying as general as possible.

4 Discussion and Conclusion

Motivated by the findings of the Innovation Offshoring Initiative that uncovered voids in the current empirical body of knowledge on IO regarding research focused on SMEs, we set out to (1) uncover, describe and assess this gap, and (2) extend and update the empirical evidence by conducting a survey directly among IO and SME researchers. In a nutshell, the expert survey highlighted the relevance of SME-specific IO research and revealed a catalogue of specific characteristics of SMEs that have to be taken into account in IO research, because they give rise to specific managerial needs and call for specific theoretical approaches. With our findings we offer a toolkit for the work on filling the voids that have been found relevant (research gaps) in the thematic map developed by the IO Initiative (roadmap).

While most of the results have already been discussed directly in the respective sections of this paper, we would like to draw specific attention to the findings on the need for SME-specific theories. In the survey, some respondents claimed that theory is universal and thus there is no need for a specific theory when it comes to researching a specific type of firm, such as SMEs. However, in order to gain generalizability across a large number of different types of research settings, theories need to be independent of the characteristics of the specific setting. This, of course, is the strength of theory. At the same time, it is a threat to the relevance of the findings of theory-guided empirical studies. More specifically, this threat unfolds its harmful power if the theory ignores the very characteristics that are causally linked to the phenomenon researched. In that case, the findings, conclusions and implications drawn based on the theory would be practically useless.

For research on IO, in this study, we found that the specificity of SMEs regarding their IO is not so much linked to the firm size as such, but rather to the antecedents and consequences of this size. These size-linked characteristics make SMEs a distinct group, with specific IO-related topics relevant to them, and specific managerial needs. Thus, theory that is employed as the basis of empirical research focusing on these topics and needs must cover the dimensions of the SME-specific context that are relevant to IO. Therefore, we argue that putting together a customized toolkit for research on IO in SMEs is necessary in order to tap the full potential of such research activities.

Also, sampling needs to account for this insight. While future samples for empirical IO-specific studies will, for practical reasons, still be drawn using quantitative indicators of firm size, the characteristics of SMEs that have been found to be causally linked to IO need to be included in the research design. Alternatively, the strength of the openness of qualitative research methods could be used to advance our knowledge on SMEs' IO activities without suffering the limitations of sampling.

Additionally, this study will help researchers to test and potentially transfer the great pool of MNE-based research findings on IO to the context of SMEs, gradually filling the void in SME-specific IO research. The results from the author survey presented here also provide rich insights into the current understanding of IO as a phenomenon and thus offer a first indication of the direction in which future research will go in this field. We hope that SME-specific research will constitute a significant part of future IO research. We argue that SME-specific research will result in theoretical insights and practical implications that will advance the relevance of IO in research and practice.

Acknowledgement. The authors would like to thank the participants in the 2015 Global Sourcing Workshop for pretesting our survey and the participants in the 2015 AIB-UKI Conference for their valuable feedback.

References

1. Saxena, K.B.C., Bharadwaj, S.S.: Managing business processes through outsourcing: a strategic partnering perspective. Bus. Process Manag. J. **15**(5), 687–715 (2009)
2. Massini, S., Miozzo, M.: Outsourcing and Offshoring of business services: challenges to theory, management and geography of innovation. Reg. Stud. **46**(9), 1219–1242 (2012)
3. Blomkvist, K., Kappen, P., Zander, I.: Quo vadis? the entry into new technologies in advanced foreign subsidiaries of the multinational enterprise. JIBS **41**(9), 1525–1549 (2010)
4. Bunyaratavej, K., Doh, J., Hahn, E.D., Lewin, A.Y., Massini, S.: Conceptual issues in services offshoring research: a multidisciplinary review. Group Organ. Manage. **36**(1), 70–102 (2011)
5. Rilla, N., Squicciarini, M.: R&D (Re)location and offshore outsourcing: a management perspective. IJMR **13**(4), 393–413 (2011)
6. Carayannopoulos, S., Auster, E.R.: External knowledge sourcing in biotechnology through acquisition versus alliance: A KBV approach. Res. Policy **39**(2), 254–267 (2010)
7. Lewin, A.Y., Peeters, C.: Offshoring work: business hype or the onset of fundamental transformation? Long Range Plann. **39**(3), 221–239 (2006)
8. Lewin, A.Y., Volberda, H.W.: Co-evolution of global sourcing: The need to understand the underlying mechanisms of firm-decisions to offshore. Int. Bus. Rev. **20**(3), 241–251 (2011)
9. Lewin, A.Y., Massini, S., Peeters, C.: Why are companies offshoring innovation? The emerging global race for talent. JIBS **40**(6), 901–925 (2009)
10. Cantwell, J.: The globalisation of technology: What remains of the product cycle model? Cambridge J. Econ. **19**(1), 155–174 (1995)
11. Kenney, M., Massini, S., Murtha, T.P.: Offshoring administrative and technical work: New fields for understanding the global enterprise. JIBS **40**(6), 887–900 (2009)
12. Di Gregorio, D., Musteen, M., Thomas, D.E.: Offshore outsourcing as a source of international competitiveness for SMEs. JIBS **40**(6), 969–988 (2009)
13. Dossani, R., Kenney, M.: The next wave of globalization: relocating service provision to India. World Dev. **35**(5), 772–791 (2007)

14. von Zedtwitz, M., Gassmann, O., Boutellier, R.: Organizing global R&D: challenges and dilemmas. J. Int. Manag. **10**(1), 21–49 (2004)
15. Welsh, J.A., White, J.F.: A small business is not a little big business. Harvard Bus. Rev. **59**(4), 18–32 (1981)
16. Carmel, E., Nicholson, B.: Small firms and offshore software outsourcing: high transaction costs and their mitigation. J. Glob. Inf. Manage. **13**(3), 33–54 (2005)
17. Murtha, T.P., Lenway, S.A., Hart, J.A.: Managing New Industry Creation: Global Knowledge Formation and Entrepreneurship in High Technology. Stanford Business Books. Stanford University Press, Stanford (2001)
18. Rangan, U.S., Schumacher, P.: Entrepreneurial Globalization: Lessons from the Experiences of European Small and Medium Enterprises. IIM-B Conference, Paper 105-15 (2006)
19. Prater, E., Ghosh, S.: A comparative model of firm size and the global operational dynamics of U.S. firms in Europe. J. Oper. Manage. **24**(5), 511–529 (2006)
20. Roza, M., van den Bosch, F.A.J., Volberda, H.W.: Offshoring strategy: motives, functions, locations, and governance modes of small, medium-sized and large firms. Int. Bus. Rev. **20**(3), 314–323 (2011)
21. Frank, H., Roessl, D.: Problematization and conceptualization of "entrepreneurial SME Management" as a field of research: overcoming the size-based approach. Rev. Manage. Sci. **9**(2), 225–240 (2015)
22. Brüderl, J., Schüssler, R.: Organizational mortality: the liabilities of newness and adolescence. Admin. Sci. Q. **35**(3), 530–547 (1990)
23. Johanson, J., Vahlne, J.-E.: The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. JIBS **40**(9), 1411–1431 (2009)