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Introduction of an Evaluation Tool to Predict the Probability of Success of Companies: The Innovativeness, Capabilities and Potential Model (ICP)

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Abstract

Successful innovation requires management and in this paper a model to help manage the innovation process is presented. This model can be used to audit the management capability to innovate and to monitor how sales increase is related to innovativeness. The model was developed from a study of companies in the high technology cluster around Munich and validated using statistical procedures. The model was found to be effective at predicting the success or otherwise of the innovation strategy pursued by the company. The use of this model and how it can be used to identify areas for improvement are documented in this paper.

Keywords: Innovation capabilities, innovation styles, audit tool, evaluation tool, innovation model, benchmarking.

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Introduction

The positive impact of innovation to companies' growth and success is underpinned by much of the literature in the arena of innovation management. Innovation is important because it drives company's competitive advantage by introducing new technologies, research and breakthrough ideas to sustain business and promote success. There is a great deal of complexity associated with innovation and it seems that incorporating innovations to all organisational levels requires more capabilities than simply setting-up a strong product development process. An important task for decision makers is to run an assessment on their current position with regard to innovativeness and their utilisation of crucial capabilities. Capturing the amount of innovations realised in various typologies including process, service, technical and administrative is important to understand the process. However, to work cross-functionally and to bring incremental and radical ideas to market success requires enhancement of core capabilities and strategic business thinking. The possibility to benchmark and learn from successful companies would help create innovative and successful companies. The motivation of this paper is to forward a model which assists in this benchmarking and learning. This model is termed the Innovativeness, Capabilities and Potential Model (ICP) which allows one to map the success of a company's innovation strategy, and to track the performance of management in following this strategy. This model gives companies the possibility to illustrate their probability of success on a single chart. The probability of success is defined as by the ability to achieve profitable growth and sustain development. The model allows companies to assess on a scorecard nine core capabilities showing which domains are strong and which need further development. The scorecard results give the basis on which to develop action plans to improve in weak areas. The use of this type of auditing tool is especially important for growing companies, where the continuous assessment and modification of structures, competencies and organisational settings becomes crucial for sustainable innovations and resulting sales growth. This paper reports the development of the model and its validation and how it derived from the literature. The paper concludes with examples of how the model can be used.

Background

Innovation is recognised as a key element for survival and growth for businesses. Innovation and successful companies are generally recognised as the major underlying driver of long-run economic growth (OECD, 1999, 2001, 2006). Every enterprise has a critical role to play in this process, through introducing new innovations to the market, generating employment, and spurring competition with existing firms (Lewrick, et al., 2007b). Therefore, the question is not of whether or not to innovate but rather what are the influencing factors and capabilities to sustain growth and ensure business success?

Literature is rich in various tools to measure and audit innovation performance, some auditing tools focus on the new product development processes, see for example Radnor and Noke (2006), Chiesa, et al. (1996), Gardiner and Gregory (1996), Cormican and O´Sullivan (2004). Other streams, such as Innov-8 (2002), of thinking emphasise the power of creativity in the development of an innovative culture which is influenced by various external and contextual factors surrounding and influencing companies (Roberts, 2003; Roberts and Amit, 2003), or the combination of the technology practices (see Voss, et al 1994 and 1996).

Traditional measures of innovation such as market success might be weak indicators as Rae (2006:13) highlights: "*In today's fast-paced environment, the capability for organic growth reveals a number of other important health factors: How fast can a company change? How nimble are its people in acting on trends? Are top decision makers driving innovation, or is the culture they've created too afraid – or muddled – to make bold moves? Factors like these can take years to change.*" It seems that the capabilities, skills and competencies influence the success much more than focusing on R&D spending, products launched and patents filled. Wagner (2007) reports that the innovative worker and the organisational as well as the inter-organisational network have not been given enough attention. Further human capital (people and teams) is an important intangible assets along with structural capital (processes, information systems, patents), and relational capital (links with customers, suppliers and other stakeholders) in the innovation process.

The techniques and research instruments for collecting relevant information from companies vary depending on the focus of the explorations. Some tools use a questionnaire approach (see Chastion 2002) to gather for example information about the R&D skills, etc.. Other Scholars, such as Bubner (2001) introduced scoring factors to depict the importance of innovation and management. It seems that most approaches to audits and measures take a rather narrow view on innovation instead of considering the entire spectrum and complexity of companies. Different capabilities embedded in companies play a vital role to sustain long-term competitive advantages. Therefore, Marsh and Stock (2003) point out that it is of paramount importance to put more attention to develop, improve and nurture the dynamic integration of capabilities. This might include all organisational capabilities for growth and success (Helfat and Peteraf, 2003). The purpose of the ICP model is to investigate the dynamic nature of the innovation process and it is hoped

that this will provide an evaluation tool to estimate the probability of success of companies based on innovativeness and key capabilities for innovation and success.

Drivers for Innovation and Success

In literature the correlations of innovation and management capability have been explored in various dimensions. The positive and negative impacts of market orientation, knowledge management, social networks, and management capabilities, only to mention a few, have been outlined in many studies to show their impact on innovation and success. In order to build an operational model it was necessary to include previous views and contemporary studies related to innovation. In the following some of these concepts will be introduced and discussed.

Market orientation is recognised as part of the business strategy of firms, and it is considered to be an important strategic orientation in literature by Hunt and Lambe (2000) and Gatignon and Xuereb (1997). The concept of market orientation as a business strategy includes the collection of market relevant information. The positive influence of market orientation to business success has been shown in several studies (;Greenley 1995, Hooley, et al. 2000, Langerak 2001, Kahn 200, Cano et al. 2004, Zhuo et al. 2005' Gainer and Padanyi 2005, Kara et al. 2005, Hult et al., 2005). The relationship between market orientation and innovations has been also addressed by researchers such as Lewrick, et al. 2008, Kohli and Jaworsky 1990, Rueckert 1992, Slater and Narver 1995, Atuahene-Gima 1996 and Gatignon and Xuereb 1997. Therefore, three sub-domains of market orientation have been chosen and integrated in the ICP model: customer orientation, competitor orientation and the competitive and market environment. One of the most discussed drivers for innovation and success is the effect of knowledge and the ability to learn. Knowledge might be already an integral part of market orientation as recognised earlier, but the management of knowledge should be seen as a separate factor.

Nanaka and Takeuchi (1995) and Song (2002) comment that employees and firms benefit from the exchange of tacit and explicit knowledge. The positive relation between knowledge, innovation and companies performance has been explored in various studies, for example the 2006 McKinsey (2007) survey, acting on global trends, revealed that the most positive impact on company profits is knowledge and this has a faster pace in technology innovations. Some scholars such as Cohen and Levinthal (1989) and Griffith et al. (2004) focus on exploration with regard to external knowledge and the effects on innovations. Lewrick et al (2008b) highlight that in general the investment in knowledge management leads to greater innovative activity.

The knowledge utilised for innovations is no longer conceived as a discrete event arising from individuals. Dosi (1982) highlights that knowledge is based on a process or more specifically on a problem solving process which might solved by a new idea put into practice. Others such as Lundvall 1988, Le Bas 1991 and Rosenberg 1982 explain knowledge as diversified learning process with different dimensions, e.g. *learning-by-using, -by-doing, and –by-sharing*, of course by taking into consideration that learning arises from internal and external sources of knowledge. Scholars such as Drucker (1998:10) states that in order to bridge the gap between knowledge and innovation stating: "*we know that the source of wealth is something specifically human knowledge. If we apply knowledge to tasks we already know how to do, we call it productivity. If we apply knowledge to tasks that are new and different, we call it innovation. Only knowledge allows us to achieve those two goals*." The strong relationship between knowledge and innovation has been addressed in various studies (see Lewrick, 2007). Harkerma and Browaeys (2002) and they acknowledge the work of Nanaka and Takeuchi (1995) by making clear that innovation is a "*structural and mental knowledge process*". According to Davenport (1998:7) knowledge includes attributes described as a "*fluid mix of framed experience, values, contextual information and insight*".

These dimensions are incorporated into the ICP model. A simplified approach would consider only two or three dimensions, considering for example knowledge and business resources. Key elements would be subsumed, for example in capabilities associated with customer orientation, competitor orientation, etc. would become market intelligence combined in the knowledge domain. However, it might be much more efficient to outline in more detail the relevant areas to offer decision makers a more concrete picture of the current situation especially of the weak areas which need more attention in the future.

Kline and Rosenberger (1986) emphasize on the formal and informal relationships between firms in an interactive process which leads to another important dimension of the ICP. This is the social network domain with an emphasis on organisational and inter-organisational network.

The correlation of social capital and social network and innovations was explored for example in Lewrick et al (2007a). This included the social context of organisations to inter-organisational relationships (Burt 1992, Nahapiet and Ghoshal 1998, Tsai and Ghoshal 1998). Research was performed with regard to the new product development process or focused on research (Allen 1977; Fleck 1979), development collaborations (Rogers 1995) and alliances networks (Ahuja 2000 and Stuart 2000). It appears that the complex theories of innovation can be described by the increasing extent of social ingredients in the explanation of innovativeness. Other studies confirm the impact of social capital to companies success with regard to interna-

tionalization (Al-Laham and Souitaris 2008), while others providing for example crucial information to sustain innovation and success (Watson, 2007).

Many companies are increasingly cutting their spending on in-house R&D in favour of open, networked approaches to developing new products, processes and business lines. The benefits of an established social network can be described as social capital which has various forms, primarily trust, norms, and networks (see Dasgupta and Serageldin 2000 and Lesser 2000). Powell and Grodal (2005) conclude that a positive feedback loop must exists, where innovative companies become continuously more centrally placed within the alliance network and as a result they tend to be more innovative (see also the studies by Ahuja 2000, Baum Calabrese and Silverman 2000, George et al 2002, Godoe 2000, Sarkar et al 2001, Stuart 2000; Vinding 2002 and Walker et al 1997).

The management capabilities are crucial for growing companies. A study by Haveman and Khaire (2004) revealed that the passion and management style of entrepreneurs is affecting not only the organisational life within the start-up activities, but also subsequent organisational behaviour and companies performance.

Another dimension in the ICP which has been considered is the measurement of innovation and success. Measuring innovation is a difficult task, but recognising the effects on companies' growth and success becomes a valuable measurement. Continuing the idea-to-innovation process sustains the revenue growth of companies and provides the necessary resources for innovation initiatives and projects. In case the market is not ready for the innovation, financial performance decreases (Markham and Griffin, 1998). However, the measurement beyond the financial perspective of innovations seems to be beneficial to companies. Michael (2007) argues that measurement strategies should include personal and professional capabilities which depend on industries and objectives of the growing company. Common financial measurements include sales of new products or services and revenue growth, while non-financial indicators measure the number of patents, innovations per employee and time-to-market. More sophisticated measuring systems are still rare because companies are afraid of adding more KPIs to the measurement portfolio. There are many different views of how to measure innovation in a more sophisticated way, e.g. by implementing innovation scorecards (see European Business School and Little 2001) or tools like the ICP model. The measurements include aspects reaching from utilisation of capabilities, defining readiness for innovation; to measurements associated with financial and innovation performance. To the author's knowledge, literature does not offer any analysis of the correlations of innovation measurements and innovativeness.

The ICP model provides a formalised and operational approach to assess the innovativeness, capabilities and potential of a company or companies within a cluster or region. The details of how this model was constructed are explained in the following sections.

Development of the ICP Model

To build this model two axis were constructed, one from the nine management capabilities outlined above and one of the degree of innovativeness. To calibrate the model data was collected from over 200 CEOs of companies in the high technology cluster around Munich. This approach provided access to growing innovative companies. Companies in cluster benefit from technology transfer and innovation as Tan (2006) realized in his studies of the Beijing Zhongguancun Science Park.

For tapping into the Munich cluster an e-questionnaire was given, which covers some 60 questions on aspects of innovativeness and the management capabilities thought to be associated with innovation. The questionnaire was formed from the literature and from focus groups of senior managers. This survey was called the Innovation Management Audit (IMA) and consisted of statements about which CEOs scored their level of agreement on a seven point scale (see Lewrick, 2007). For each of the nine dimensions examples of the questions used are listed below.

For the dimension customer orientation one of the questions was – "to what extent does your company regularly use research techniques such as focus groups, surveys, and observation to gather customer information?".

For competitor orientation dimension a question was – "to what extent does your company systematically collect and analyse information about potential competitor activities?"

"To what extent are the market competitive conditions were highly unpredictable?" was used in market and competitive environment dimension.

An example of a question used in learning and diversification is - "to what extent does your company frequently learning new skills in areas such as to fund new technologies, staff R&D functions, training and development of R&D?"

Within the block of questions related to knowledge manage-

ment, one of the questions was: "to what extent are there continual upgrading skills in product development processes in which the firm already possesses significant experience?".

"To what extent is your company open for change with regard to the business strategy, products, services, and processes?" is an example of a question used for the dimension of *management capability*.

To assess the degree of organisational networks questions such "to what extent are innovations are influenced by a larger social network, e.g. external workshops, conferences?" and for inter-organisational networks an example of the questions is "to what extent does your company establish cooperative R&D agreements with other companies?"

Finally, to score measurement and outcomes questions of the form - "to what extent does your company use objectives criteria such as cost savings, quantity of new ideas, and patents filed for measuring performance?" were asked.

Innovativeness verification statements

The statements were asked for the five different innovation typologies: processes, products, services, technical and administrative. An exact definition of incremental and radical innovation was provided. In addition, some examples of the different typologies were provided to avoid misunderstanding of terminology. Within the ICP Model innovation is measured by three categories: counts of incremental, radical, and overall innovation. Incremental innovations are the improvement/expansion of existing products, services, processes, technical or administrative conditions. Incremental innovation were considered innovations not to cause a significant departure from status-quo. In contrast, radical innovations in products, services, processes, etc. are breakthroughs that fundamentally change a product, a service, or a process. Overall innovativeness is the total of all innovations put into practice, radical and incremental in all typologies. These categories have been clearly identified by a number of authors such as Tidd et al. 2003 Gatignon et al. 2002; Garcia and Calantone, 2002 and Utterback (1996).

To capture the innovativeness in the different typologies companises were asked to state for example "how many incremental innovations are realised your company in (typology) in a typical year?", and "how many radical innovations are realised your company in (typology) in a typical year?"

To ensure that the amount of innovations corresponds with the market conditions and specific characteristics of the business sector and industry, companies were asked to compare for example the amount of incremental/radical innovations realised in comparison to the major competitors such as "compared to your major competitors, the company introduced more incremental new products/services in a typical year". Other statements asked for the time to market for innovations., one example is "What is the average time to market for incremental product/service innovation".

ICP Structure/Elements

The legendary Funnel of Nuremberg (so called Nürnberger Trichter) was said to make people wise quickly when the right knowledge was poured in; this is the approach that is pursued in the ICP Model. The right knowledge is generated by the before introduced IMA. The data generated are processed through a scorecard which has been derived from a statistical model constructed from historical data collected from companies observed over a four years period, (Lewrick 2007). The processed data leads to a single chart showing the success probability of the company based on the degree of innovativeness and capabilities (see Figure 1). As an example, the white rhombus indicates the probability of success. Within the introduction it was already outlined that success is the ability to achieve profitable growth and sustainable development and in this paper success is defined as reaching a certain goal. For every company the ability to sustain business and grow becomes essential to survive and to stay competitive in the market.

In addition, the scorecard provides feedback on areas of improvement. Presented in Figure 2 is the scorecard with nine consolidated areas from the data collected in over 60 dimensions of the IMA. The scorecard includes company capabilities but also external driving forces (market and competitive environment) to complete the picture.

The range for the scorecard is divided in three performance levels. Below 50% the scorecard indicates in grey the performance, between 50% and 80% the scorecard indicates in a light grey the current performance status and over 80% the performance is indicated in dark grey.

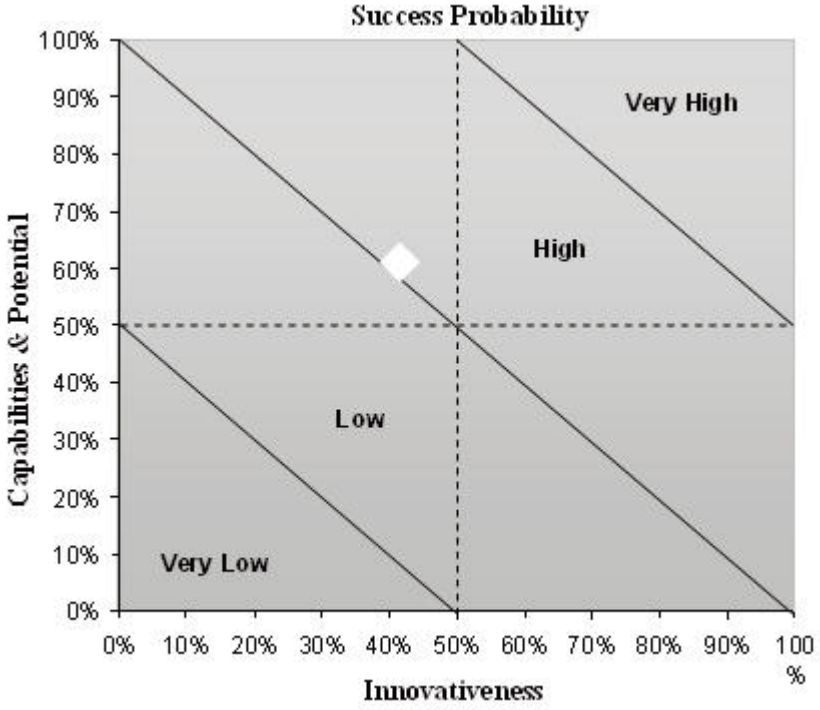

Figure 1: ICP Chart - Probability of success

Capabilities & Potential	Max 100%	>80	50- 80	<50
Customer Orientation	0%			
Competitor Orientation	0%			
Market & Competitive Environment	0%			
Diversification and Learning	0%			
Innovation Capabilities - Knowledge	0%			
Innovation Capabilities - Management	0%			
Organizational Network	0%			
Inter-Organizational Network	0%			
Outcomes	0%			
Total Capabilities & Potential	0%			

Figure 2: ICP Scorecard - Total Capabilities & Potential

The Measurement of Innovativeness

The measurement of innovativeness is based on the amount of innovations realised per year in each of the five typologies (products, services, processes, administrative, technical) for both groups, radical and incremental. The amount of innovations is weighted with different parameters to correspond to market conditions and specific industries characteristics. For example, the amount of innovations realised by competitors, time to market performance, percentage of sales from radical and incremental innovations, etc. are included to assure realistic proportions for innovativeness.

Validation of the ICP Model

The validation of the ICP model is based on two approaches: a) Statistical validation with a data-set of almost 500 innovative companies, and b) Qualitative validation based on an in-depth discussion with experts based on 5 key questions related to the ICP model.

Multinomial logistic regression models were used to model the success in innovation. Three categories of innovation were used ("low" less than five innovations per annum, "medium" 5 to 15, and "high" greater than 15 radical or incremental innovations per annum. For total innovations the categorisations were combined). The outcome of the statistical validation revealed that the overall percentage indicates with 81% that the model fits well with the data for total innovations overall (see Lewrick, 2007). Further, the holistic model included the assessment of the model fit, and examination of the parameter estimates and residuals.

In summary, two models have been developed, firstly the ICP model which is based on the bivariate correlations, and secondly an independent statistical model – used to predict innovation and performance. The validation revealed that the overall model fit to be good.

The qualitative validation was based on the experience, knowledge and intuition of different experts to obtain a practitioner as well as an academic perspective. The experts validated the conceptual ICP model based on a guided walkthrough of the written conceptual model and by asking 5 key questions related to the ICP model. The experts have highlighted some limitations that are mostly grounded in the nature of every model. Although the underlying data is utilised for estimating the future success probability of companies the IMA and ICP are not capable of capturing all potential events that will occur in the future, particularly those that are extreme in nature. In addition, the questionnaire is not able to sense in detail the strategy of a company and/or the detailed innovation process. However, the ICP was considered to provide useful insights to important indicators, such as process orientation, customer orientation, etc. that gives an indication of the direction of the company. The experts argued that more soft factors should be considered, however no clinical approach is capable of observing the feelings and motivation of a team or a single person. Of course, discussion and reflected questions are necessary to evaluate people and teams; but this was not the aim of the research and can not be the objective of the ICP. A customised ICP for different industries and sectors might bring additional value; however, it seems to be more practical to benchmark companies in the same sector through the ICP. In addition, using the same model for all industries allows identifying best practices and transfer knowledge, strategies and business approaches from one industry to another.

The reliability of the ICP model has been proven by the qualitative validation process in which the experts examined both the process of the research consistency and the operational model. As a result, the ICP model can assist people in making decisions, to elicit from people judgments that are precise, reliable and accurate, remembering that decision-making is necessarily a human function.

Example Data – Companies in different performance levels

To give an example of the use of the ICP, a data set with over 200 companies was divided in three performance levels with regard to annual sales increase. Low performer (LP) was defined as <14% sales increase (31.9% of the total), average performer (AvP) 14-30% (39.7% of the total) and high performer (HP) >30% (28.4% of the total).

Outcomes

The following three outcomes are based on real data; however the idea is to demonstrate the functionality and possible outcomes. Figure 3 shows a typical scorecard for the low performing companies. In most areas the low performing companies have room for improvement. Only the inter-organisational network and the measurement of the outcomes achieve average results.

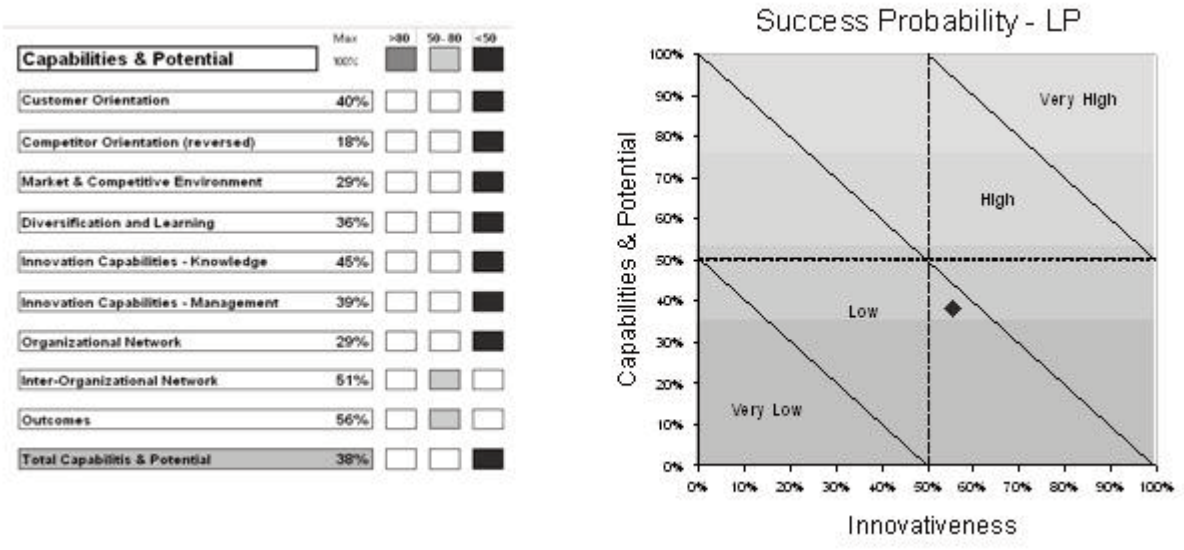

Figure 3: Outcome ICP – Low performing companies

Companies can be characterized by its business strategy, innovation success and productivity. A typical low performing company lacks in customer orientation. In many cases the strategy emphasis on a strong product development process without considering the customer needs. A strong competitor orientation leads mainly to me-too products and services. The company lacks in breakthrough innovations to sustain business success. Many low performing companies do not aim to apply continuous learning or have strategic policies in place to expand their product and service portfolio. Active knowledge sharing and knowledge acquisition are only partly realized and implemented. Management is in many cases not aware of the importance of key capabilities of innovation and success. Cross functions collaboration is not developed to utilize the entire social capital available within the companies. However, low performing companies tend to build joint R&D developments with other companies or aim to introduce products and services to the market.

In contrast to the low performing companies, illustrated in Figure 4 are the outcomes of the average performing companies. Average performers yield over 70% in innovativeness and almost 80% in dimension capabilities and potential. The companies investigated achieve a very high success probability and it seems that these companies work effective by utilising skills, competences and capabilities very well to stay innovative. Room for improvement can be highlighted for areas associated with customer orientation, competitor orientation, diversification

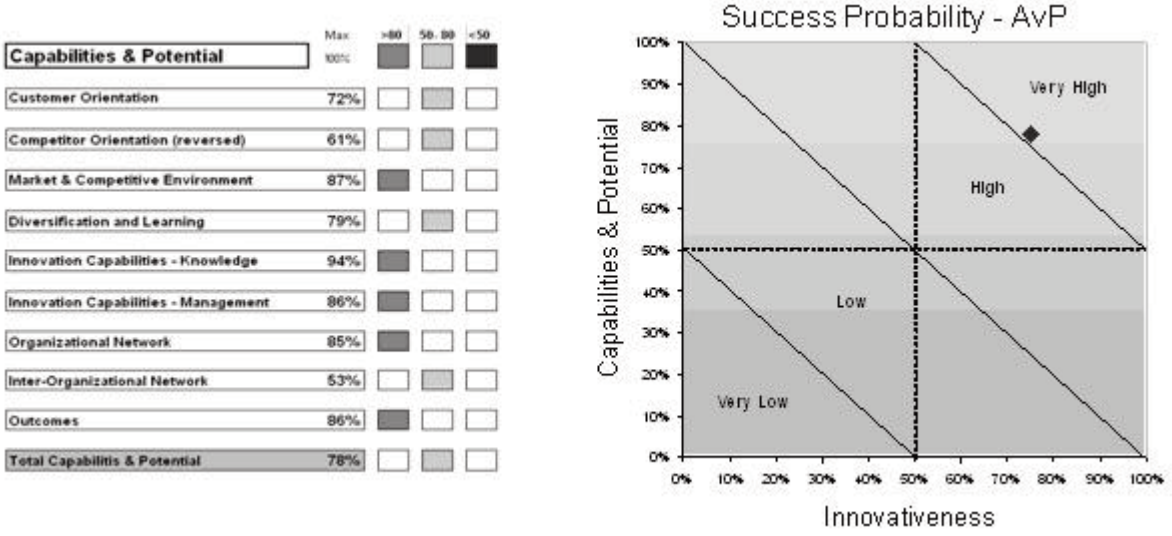

Figure 4: Outcome ICP – Average performing companies

A typical average performing company within the example used has already started to trigger initiatives associated with improvements of innovation capabilities. They might have started to introduce "customer first" or "customer focus" strategies in the past. However, the time lag between conceptualising such a strategic policy and the impact on sales categorise them as average performing companies. Companies aim to develop new products and service which includes new technologies and/or product features which are diverse from the existing product portfolio. Knowledge acquisition and knowledge sharing have become of paramount importance for these companies to sustain innovation. In many cases knowledge management platforms have been introduced and successfully implemented within the organizations. This is also seen in the strong focus on cross department collaboration. Further, average performing companies tend to measure the innovation process from various angels, not focusing merely on the financial impact of innovations.

Next, the outcome of the current high performers with regard to sales increase is depicted (see figure 5). The overall success probability is calculated as high. Innovativeness is reach also over 70% while the capabilities and potential is lower than the result of the average performers with 62%. It seems that the high performers achieve high sales increase but put not enough effort into capabilities associated to customer orientation or the organisational network to stay innovative.

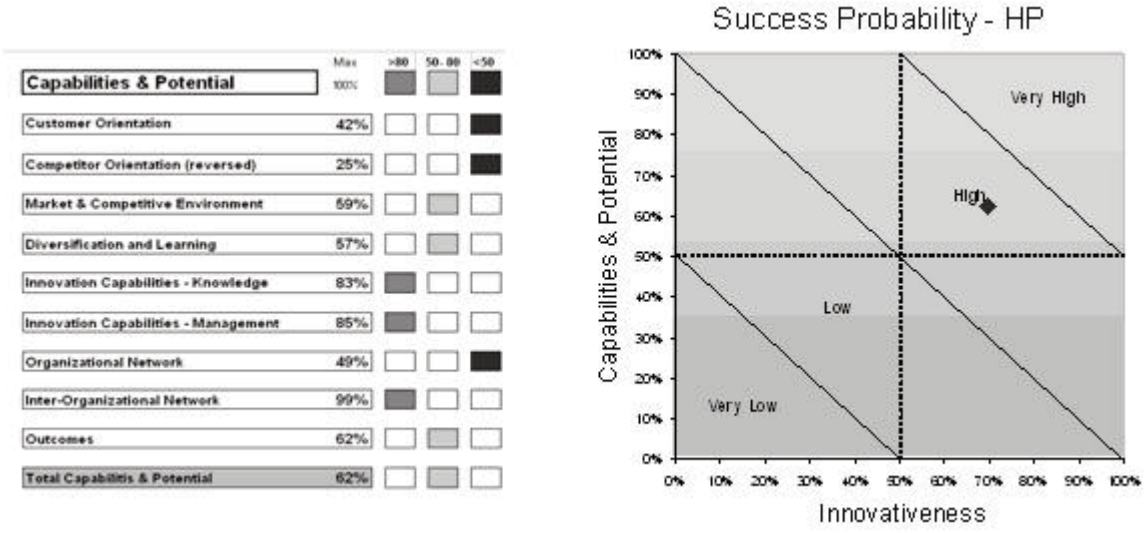

Figure 5: Outcomes – High performing Companies

Typical high performing companies within this example build its success on a strong and experienced management team. Diversification and learning becomes to one of the key success factors. The dynamic market environment forces companies to upgrade products and services continuously. However, the group of companies categorized as high performing companies does not focus enough on customers to exploit the full potential of their business in the future. Companies benefit from a strong culture of knowledge sharing. Most important is the collaboration with other companies for this group of companies to increase sales. It seems that joint R&D and market introduction provides the competitive advantage for these companies.

Finally the Scorecard and ICP grid (see figure 6) are depicting the outcomes of data, which have been derived from 55 start-ups (Munich high technology cluster). The data was processed through the ICP Model. Start-ups have been defined as ventures which are not older than two years. Utilising the ICP in early stage allows identifying less developed capabilities and gives decision makers a quick overview of current status with regard to innovativeness, capabilities and probability of success.

The sample of start-up companies achieved a high success probability. The scorecard reveals that the companies have to evaluate the market & competitive environment more deeply. This includes the observation of market dynamics and future trends. The ability of organisational learning and the capability to utilise competences, knowledge and skills for diverse products and services has potential for improvement. Also the inter-organisational network needs further attention and

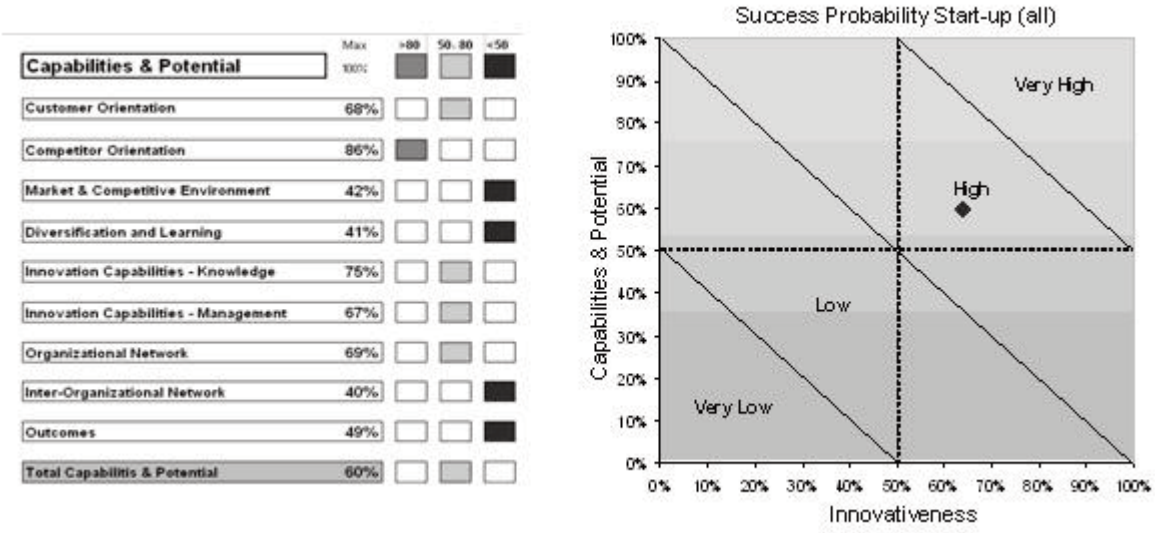

Figure 6

development to sustain innovation and success. Competitor orientation seems to be a strong capability in an early stage of ventures.

The four examples provide an idea how the ICP can be used to benchmark and as a measurement tool.

Potential of ICP

The ICP is based on the general accepted view that innovation has a positive impact on business performance and success. In comparison to financial based evaluation tools, the ICP considers various capabilities and the external dynamics of competitive environment to estimate and predict success. Not neglecting the importance of financial indicators and measurement, the ICP might be used as a supplementary tool to show the impact of strategic initiatives indirectly linked to innovations. Such an exploration might add additional information to e.g. models predicting the potential of bankruptcy (Huyghebaert et al. (2000), Keasey and Watson (1987), Laitinen (1992), and Pompe and Bilderbeek (2005). For example strategic initiatives away from innovation like sustainability initiatives, customer centricity initiatives, and knowledge management initiatives, etc. must be considered when analysing the causes-and-effects for innovation, growth and business success. More mature companies might use the ICP to measure the performance of different business entities or regions, identifying areas of improvement and potential areas of knowledge transfer such as from one entity to another. This approach allows focusing on the underlying capacities that enable a company to be innovative on a sustained basis, rather than producing one-off product or process innovations from time to time. Further the ICP is assessing the capabilities and supports the understanding in key influencers for innovation and success. The ICP scorecard supports developing distinctive capabilities to bridge the gap between intention and actual innovation capability which should become an integral part of a company's innovation strategy.

The main field of application is seen in the measurement of the success probability of start-up companies. Especially financiers might be interested to know if the right skill set, capabilities, and so forth are applied to support his/her decision making and risk evaluation. Further, the entrepreneur has the opportunity to run a self assessment to gain knowledge about his success probability. As seen before, the ICP can also be utilised to investigate the success probability of the cluster of companies or region. This would allow for policy makers to measure innovative companies and to depict areas of improvements to align policies and initiatives for regional innovation systems. Examples of this are given by (Lewrick et al. 2007b).

Discussion and Conclusion

The ICP model aims to include crucial influencing factors for innovation and success. It has been formulated through research projects which had the objective of depicting the changes in innovation styles while companies grow in revenue, corporate size and functional complexity. The outcomes of the research allowed developing an operational model to evaluate the success probability of companies based on capabilities and innovativeness. The scorecard constructed out of nine core capabilities supports decision makers in aligning strategic initiatives to weak areas of the organisation. The ICP evaluates the expected capabilities and their contribution to innovation and business suc-

cess. Further, it provides a holistic measurement system to capture the dynamic change of companies applying frequent assessments, and monitors areas for innovation and success. The scorecard allows the future challenges for improvement within the company, which might trigger, drive or support the innovation process to be identified. From the results of the ICP assessment, decision makers should formulate actions to drive improvement of weak areas, and should set the overall objectives of innovation in the organisation. Using the ICP, a company could understand which capabilities need more attention and must be addressed to increase the probability of success. Many companies only measure revenues, patents filled, money spent on R&D or market share and neglect the importance of the intangible drivers for innovation and success, such as knowledge, talent, leadership, social capital and other assets that contribute true value to innovation and success. The ICP then should be the trigger for organisations to change the organisational behavior and set-up a frame of mind for new ideas.

The ICP has the most relevance in auditing start-up companies, because new ventures operate in fast changing organisational structures. In many cases the inventor, or the entrepreneur becomes the leader of the organisation. Departments must be created, structures must be build and knowledge must be managed which might be a complex endeavor which needs controlling and strategic directions. The ICP might help to keep track of the development in growing organisations, and support to keep the company innovative, especially as innovation is not a one-off success. The continuous adoption and reassessment of the organisation becomes key to develop innovativeness. In addition, it goes beyond frameworks only explaining organizational formation (Katz and Gartner, 1988). The ICP provides supplementary information and succeed in including dimensions that affect the short and long term survival of new organizations (Brush et al., 2008).

The example of the ICP model used within this paper has shown the outcomes of processing the data of three different performance levels of growing companies and depicts the difference of low performing companies from average performing companies on crucial capabilities. Also shown is that some high performing companies do not put enough effort in strengthening core capabilities to sustain innovation and company performance.

The ICP is an initial approach to include various capabilities in the evaluation of companies and to predict the success probability. More elements can be added to make this model more comprehensive once companies and decision makers have gained experience of use.

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