Customer Development for Start-ups: What is the State of the Art and Which Current and Future Part Does IT Play?

Nikolaus Lipusch*

University of Kassel, Chair of Information Systems, Pfannkuchstraße 1, Kassel, 34119, Germany.
E-mail: nikolaus.lipusch@uni-kassel.de

Philipp Ebel

University of Kassel, Chair of Information Systems, Pfannkuchstraße 1, Kassel, 34119, Germany.
E-mail: ph.ebel@uni-kassel.de

Dominik Dellermann

University of Kassel, Chair of Information Systems, Pfannkuchstraße 1, Kassel, 34119, Germany.
E-Mail: dominik.dellermann@uni-kassel.de

Ulrich Bretschneider

University of Siegen, Chair of Information Systems, Kohlbettstraße 15, 57072, Germany.
E-mail: ulrich.bretschneider@uni-siegen.de

* Corresponding author

Abstract: Latest studies found that an insufficient customer focus when developing business ideas represents a crucial factor in the failing of start-ups. That is why different concepts to early involve customers are being discussed in the literature more often recently. These concepts aim at including customers in the development and testing of new business ideas from the beginning. With the terms customer development and lean start-up, the literature currently describes different activities that exhibit certain interdependencies. Therefore, this paper aims at analysing these activities and depicting them in a holistic customer development process for the first time, hence allowing for a topical overview of the these concepts. Moreover, this paper shows which IT solutions for the IT support of particular process steps are provided in practice. Based on the insights gathered from this research, this paper also demonstrates important areas for future research in the field of "IT support for customer development."

Keywords: Customer Development, Entrepreneurship, Lean Start-up

1 Introduction

The small number of successful start-ups is still in contrast with the large number of failed foundations. A study by Gosh found that 75 percent of all start-ups fail (Blank, 2013b). Song (2008) obtains similar results; he found a survival rate of 21.9 percent for the first five years of start-ups. Within the scope of current observations, start-ups merely insufficiently considering the needs of future customers when developing their business ideas are assumed to be one of the main reasons for the failing of business formations (Blank, 2013a). This is confirmed by studies finding an insufficient customer focus to be a crucial factor in the failing of entrepreneurs (Hopp, 2012; Song *et al.*, 2010).

Therefore, approaches dealing with an early integration of future customers in the process of a start-up's business formation have been awarded increasing interest in research and practice (Blank, 2013b; Blank and Dorf, 2012; Maurya, 2012; Ries, 2011). These approaches aim at consequently adjusting the range of services of new start-ups to the needs of their customers. The main idea behind this is to include customers from the beginning in the development and testing of market offers (Blank, 2013a). Thus, these concepts were specifically developed with regard to the needs of start-ups and take into account that entrepreneurs, especially at the beginning of their business operations, have only little financial resources and know little about their potential customers. Another important feature of these approaches is their iterative character. Several tries or iterations, respectively, are implicitly assumed to be necessary in order to find the right market and the corresponding business idea (Blank, 2013a).

Two of the most popular and widely used concepts in the realm of customer integration for start-ups are the lean start-up- and the customer development approach. Although both concepts are becoming increasingly popular in practice, there is yet only little academic literature systematically dealing with these concepts. Many papers cover single aspects of validating business ideas but do not draft a generally valid process. Further, the role of new information technologies to support these customer integration methods remains yet unclear. This is surprising, especially since new information technologies have the potential to effectively include customers in the development and testing of business ideas (Del Giudice and Straub, 2011), can help improve organization routines and coordination activities of businesses, as well as reduce costs (Skinner, 2008; Timmers, 1998; Malone *et al.*, 1987).

Against this background, as part of a literature analysis, this paper aims at elaborating a generally valid customer development process for start-ups to develop and test new business ideas[1]. As part of this work, we further want to find out to which extent the IT-supported implementation of the single process steps has already been considered in the scientific literature. To complete this, we also investigate whether software solutions

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[1] By new business ideas, we primarily mean ideas that are developed in the course of a business formation.

supporting the particular process steps within customer development have already been implemented in entrepreneurial practice. This analysis serves as basis to identify existing research gaps, which may represent starting points for further research in the field of customer development processes for start-ups.

2 Conceptual Background and Problem Statement

While formulating business ideas, the course for future business success is already being set. The orientation toward customers is a core aspect of innovative business ideas (Schwarz *et al.*, 2013; Hopp, 2012). With technology business formations in particular, entrepreneurs pursue their own product ideas, thereby losing track of the basics, that is, customers and their needs. Hence, many start-ups fail because entrepreneurs use all their resources for product development even before their business ideas have been sufficiently elaborated and tested with customers (Trimi and Berbegal-Mirabent, 2012). According to Blank (Blank and Dorf, 2012), this approach represents a risky strategy as important activities, for example marketing, production, business operations, and sales, are being ignored (Onyemah *et al.*, 2013; Trimi and Berbegal-Mirabent, 2012).

In view of practice, emergent businesses especially lack standardized processes to systematically test their business ideas with their customers over a longer period (Blank, 2013a). Taking a look at the literature also reveals that previous approaches only refer to partial aspects of idea validation. However, on closer inspection overlaps of these approaches can be observed. Thus, in the following, the customer development- and the lean start-up- approach will be examined in more detail in order to be able to identify the similarities between the two approaches.

Customer development describes a four-step process, which depicts the development of the start-up to a mature company. The first phase (i.e. customer discovery) involves the development of clearly defined hypotheses and experiments, which are then used to test a a start-ups business idea with the market (i.e. the second phase also known as customer validation). In the case of negative feedback, it is necessary to run further iterations in order to gradually improve the idea or to even pivot the original idea (i.e. if the idea is pivoted the whole process start from new). The third phase (i.e. customer creation) contains the build-up of a large customer base using cost-intensive campaigns. The last phase (i.e. company building) provides the introduction of organizational structures and thus yields in the development of a start-up to a company.

The lean start-up approach originates from the customer development approach and describes a procedure for successfully launching a product and establishing a company. Eric Ries developed this approach by combining the concept of customer development with the principles of agile development and lean management, thus establishing a relationship between customer development and product development. His approach is based on the Build-Measure-Learn cycle. [Ries, 2011]. This describes the process of transforming ideas into a product (i.e. build), testing the product with customer's (i.e. measure), and recognizing whether a pivot, or another iteration is necessary (i.e. learn).

Comparing both approaches it is noticeable that both are customer centric. This means that both approaches involve customers in the development of a business concept right from the start in order to be able to respond to customer needs and to avoid costly

aberrations. Even more, both approaches involve the customers at various stages and recurrently throughout the integration process which constitutes the iterative character of both concepts. Finally, a common similarity of the customer development and the lean start-up approach is that they both make use of proxies of their products and services (i.e. prototypes or minimum viable products) which makes it possible to test future products in a cheap and quick way.

However, after closely inspecting literature on these two approaches, we observe that an exact delineation of the two approaches is difficult since they partly overlap. Moreover, so far there are no empirical insights regarding a holistic process for the iterative development and evaluation of new business ideas to be found in the literature. Against this background, we proceed with deriving a clear and holistic customer development process that can be used by start-ups to systematically develop and test their products and services from the very beginning. Additionally, we examine how this process can be best supported by current IT solutions and where the potential for future IT-based solutions may lie.

3 Derivation of a Customer Development Process

3.1 Method

In the first step, we conducted a comprehensive literature review aiming at identifying activities that depict a fundamental part in the process of developing and testing new business ideas and have until now been autonomously applied in practice. Based on Zott (Zott *et al.*, 2011), the literature search followed a multilevel process. In a first step, we examined a list of databases, including Business Source Premier, EconLit, JStor, Science Direct database, AIS electronic library, ACM digital library, IEEE explore, and Emerald database. We searched for publications with a combination of the following search terms: ("lean start-up") AND ("customer development," OR "customer integration"). The analysis of the titles, keywords, and abstracts allowed for a further isolation of 45 publications, which built the basis for a more in-depth analysis.

To determine the relevance of the particular publications, we used two additional selection criteria. In order to be considered for the literature analysis, the papers had to address the process of developing and testing new business ideas or at least individual activities of it. Further, as our second requirement for a consideration in the literature analysis, the respective papers had to deal with developing and testing business ideas in a nontrivial way. As a result, we obtained 11 publications we deemed relevant. Since our search only revealed a limited number of papers, we used the forward-backward search method (Webster and Watson, 2002) in the third step to identify further relevant literature. Hence, six additional publications could be identified, which we included in our literature analysis. In total, we could draw on 17 relevant papers (see Table 1), which address single or multiple activities for developing and testing ideas

In the next step, we then conducted a qualitative content analysis with these 17 papers (Forman and Damschroder, 2008; Mayring, 2010). Therefore, we specifically searched the papers for customer integration activities that are related to test and develop new business ideas. Furthermore, we elaborated precise descriptions of the individual

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activities in order to consequently derive requirements for each activity. As the described activities varied slightly from publication to publication, we summarized them in distinct main categories to obtain an overall process. The described method was conducted by the three authors, who all acted independently of each other. Therefore, each of the three authors derived activities as well as main categories from the literature. Based on this, the different results were discussed in the team and subcategories that were summarized to an overall process were agreed upon. To guarantee that the process and the individual process activities reflect the actual procedure, they were compared with the literature once again. As a result, we identified five different process activities, which were combined to a holistic customer development process that allows start-ups to systematically develop and test their ideas. In the following, each of the process steps is elaborated on.

Table 1 Combination of the Results of the Literature Analysis and Qualitative Content Analysis

Publications	Activities of the Customer Development Process				
	Definition of the Business Idea	Construction and Validation of Hypotheses	MVP Design	MVP Evaluation	Further Development of the Business Plan
Constable et al. (2014)		●	●		
Ash Maurya (2012)	●	●	●		
Osterwalder (2014)	●	●	●	●	
Cooper et al. (2010)	●	●	●	●	●
Eisenmann et al. (2012)/	●	●	●	●	●
Oliver Koch (2015)				●	
Olsen Dan (2015)	●	●	●	●	●
Fagerholm et al. (2014)		●	●	●	●
Ollson und Bosch (2016)		●		●	●
Blank (2013)	●	●	●		
Cespedes et al. (2012)	●	●	●		
Rancic-Moogk (2012)			●	●	
Breuer (2013)	●	●			
Münch et al. (2013)			●		
Pease et al. (2014)	●	●	●		●
Cespedes (2011)	●	●			
Ries (2011)	●	●	●	●	●

3.2 Customer Development Process Steps

Based on the literature, an ideal-typical process for the gathering and testing of business ideas can be derived. This process consists of the five following process steps: (1) definition of the business idea, (2) construction and validation of hypotheses, (3) design of the minimum viable product (MVP), (4) evaluation of the minimum viable product, and (5) further development of the business plan. In the following, each of these process steps is elaborated.

Definition of the Business Idea. This step usually includes all activities that serve the gathering or development of a business idea, respectively. In most cases, an entrepreneur's vague idea or vision serves as basis (Blank, 2013a; Maurya, 2012; Constable *et al.*, 2014). Here, the literature mostly approaches tools such as the business model canvas (BMC) or the value proposition canvas (VPC), which might help in outlining or further developing a business idea, respectively (Osterwalder and Pigneur, 2010; Osterwalder *et al.*, 2014; Eisenmann, 2011). At first, this is about specifying the entrepreneurial vision.

Construction and Validation of Hypotheses. This is about validating the implicit assumptions about a business idea in a first step with customers. The BMC, for example, serves as basis as it helps formulating a business idea. If a company has been able to answer all the questions to the elements of the BMC, testable hypotheses can be generated based on the answers (Eisenmann *et al.*, 2012; Cespedes *et al.*, 2012). Since the BMC is a very extensive tool, which leads to several follow-up questions, it is also possible to construct hypotheses specifically for selected elements of the BMC. One procedure, which seems to be suitable especially for customer development, consists of focusing on the elements of the VPC. As part of constructing the hypotheses, many different aspects have to be considered. On the one hand, hypotheses should be formulated in such a way that they can be falsified. This means that these hypotheses have to be designed in a way that they can either be unambiguously rejected or accepted. One way of specifying a hypothesis is by working with verifiable numbers (Eisenmann *et al.*, 2012; Ulwick and Bettencourt, 2008). If hypotheses have been formulated, they need to be validated with a small group of people. Customer surveys or observations are generic approaches (Cespedes, 2011; Constable *et al.*, 2014). This step serves a first reality check and is meant to help concentrate on the aspects essential for customers when determining the MVP.

Design of the Minimum Viable Product. The next step is about designing a first minimum viable product (MVP) based on the validated hypotheses. Therefore, an MVP is defined as "a product with minimal requirements and characteristics" (Olsen, 2015; Maurya, 2012). When constructing the MVP, it is important to take into account that the MVP only covers the basic needs (i.e., the product or service idea should be depicted only with its basic functionalities) of the consumers. This enables a fast creation of the MVP and allows for testing at low costs since it does not require extensive investments in a fully functional product or service (Moogk, 2012). Hence, the MVP follows the guiding principle of "fail often and early" (Maurya, 2012) as well as the logic of the "build-measure-learn" cycle, which was defined by Ries (Ries, 2011) as part of the lean start-up approach. An MVP can take on different shapes. Thus, it can be a prototype that already allows for testing the functionalities of a product or service, or a simple landing page only depicting a potential product or service (Koch, OliverDarmstadt University of Technology, 2015; Münch *et al.*, 2013). As an MVP can be realized very fast, it is

particularly suitable for a quick gathering of customer feedback, which can be used in a next step in order to iteratively advance and improve the MVP.

Evaluation of the Minimum Viable Product. In this phase, the MVP is meant to be tested. Depending on which shape the MVP has assumed, different tests are possible here. Regarding this, the literature mentions A/B tests, cohort analyses, GQM+ methods, or the simple questioning of customers regarding their readiness to buy and price acceptance (Constable *et al.*, 2014; Eisenmann *et al.*, 2012; Cespedes *et al.*, 2012; Münch *et al.*, 2013). When designing the tests to evaluate the MVP, it should be taken into account that they need to be suitable for validating the previously defined hypotheses (Fagerholm *et al.*). Moreover, it should be guaranteed that these tests enable learning for the entrepreneur (Breuer, 2013). Further, prior to actually testing, the order in which the tests ought to be conducted needs to be determined. In so doing, several options are possible. For example, prioritizing tests that help neutralize high risks with little effort makes sense (Cespedes *et al.*, 2012). Patent search would be an example for this. In some cases, the test order is given, for example when certain business model elements are codependent chronologically. Thus, testing assumptions about customer segments before testing the actual value proposition seems to be logical (Eisenmann *et al.*, 2012). Within the scope of this step, the crowd is selected as well, meaning the customers who are meant to be involved in the test. The selection of the test subjects should also happen from a strategic perspective in order to later be able to draw on valid feedback. Here, several criteria are possible, for example a selection based on demographic data or based on prior experience with similar products (Ulwick and Bettencourt, 2008).

Further Development of the Business Plan. In the last step, the compiled data needs to be aggregated and analyzed. As part of the evaluation, the entrepreneurs should be aware of the fact that the test results may be manipulated due to a potential bias (Ulwick and Bettencourt, 2008). Customers whose expressed preferences do not always correspond with their actual preferences would be an example for this. The entrepreneurs themselves might depict another source of error, at least if they interpret the test results in a wrong way (Eisenmann *et al.*, 2012). Besides, this step is about making decisions based on the test data. Consequently, the entrepreneurs have to decide whether to stick to their business idea, changing it, or rejecting the idea altogether (Pease *et al;* Ries, 2011). If the entrepreneurs decide to stick to their idea or decide to only have slight changes done, this process starts all over again and the entrepreneurs begin testing additional or alternative hypotheses, respectively (Blank and Dorf, 2012).

4 Analysis of Existing Software

4.1 Method

In addition to identifying the single process steps as well as the aggregation of the identified steps to an overall process, the way in which existing software solutions support the single process steps within the customer development process is to be researched as part of this paper as well. For this purpose, an Internet search was conducted as part of this study. This search focused on existing commercial solutions as well as software solutions that are offered free of cost. In total, we identified nine different software solutions. Subsequently, we first analyzed and then evaluated the identified software solutions regarding whether the individual solutions are capable of supporting the different customer development process steps.

As part of the Internet search, combinations of the following search terms were used: ("lean start-up") AND ("customer development," OR "customer integration,") AND ("software " AND "tool"). As a result, nine web-based software solutions were identified, which are listed in Table 2.

Subsequently, the identified software solutions were again analyzed and evaluated by the three authors of the paper at hand. Following, the results of this analysis were consolidated by communicating the evaluations of the three authors. In conclusion of this examination, all three authors assessed the solutions whether they are capable of supporting the different process steps. In doing so, we differentiated between manifestations with complete support, partial support, and missing support.

4.2 Findings

Lean Monitor. Lean Monitor is a web-based collaboration software supporting start-ups in all phases of the lean start-up process. New ideas can be developed as well as risky assumptions identified and tested in order to eventually achieve a validated and steady business model.

In order to support this process, Lean Monitor offers the following functionalities: 1) To support the process of idea development, the software provided different templates ("canvases"), which are meant to enable the structuring of new business ideas. 2) After completing the idea development process, start-ups can identify and document assumptions in, especially hazardous ones, which were made in the course of idea development, in a "hypotheses board." To this end, the software offers a separate space in which single hypotheses can be recorded. 3) Thereafter, the documented hypotheses can be converted to a so-called "experiment board" and tested. For this purpose, the start-ups are provided with different test procedures that are often offered as part of customer development. The software offers the possibility to select a test procedure, define appropriate key figures, and document the findings of the tests. 4) The findings of the tests can be depicted in the section "results" in more detail. This allows the start-ups to consolidate their test results as well as draw inferences for their own business plan. Following the previous description, Lean Monitor supports a majority of the process steps that were identified as part of the literature analysis. Only the explicit specification of a minimum viable product is not yet provided in the software. Further, start-ups only receive little additional information supporting the development of own business plans. A so-called "lean assistant" performing this supporting function does exist, but it is currently still limited to dealing with the software and only includes little assistance regarding the performance of the individual customer development process steps.

LeanStack. LeanStack is a web-based software meant to support idea development within customer development. To this end, the software offers the possibility to collaboratively work on the so-called lean canvas, which was developed by Ash Maurya (Maurya, 2012). Lean canvas is a further stage of the business model canvas (Osterwalder and Pigneur, 2010) and focuses on problem definition and verification, which depict a major part of customer development approaches. To achieve this, the definition of a relevant customer problem represents the starting point for the lean canvas. Based on this, start-ups are able to define a suitable solution and start defining key figures for measuring the progress of their start-up project. Further, the start-ups are to define a competitive advantage, thereby enabling the start-up to distance itself from its competitors.

In total, LeanStack enables start-ups to collaboratively define their own start-up project. The focus is on initial idea development, which ensues by means of the software and along important areas of consideration within customer development. However, the

testing and further development of the elaborated ideas are only considered marginally. Start-ups working with this software are to continually advance their ideas; explicit instructions and assistance have however not been implemented in the software at this moment.

Pollenizer. Pollenizer represents a collection of tools that is meant to support all steps of the customer development process. The particular tools are presented in the following: 1) The already mentioned "lean canvas" depicts the starting point for the customer development process. Hereby, start-ups can outline and document their ideas in a first step. 2) In addition, the software provides a tool called "experiment designer," which enables start-ups to define experiments for testing their business plans and document their progress. 3) To determine the next steps for realizing the business plan, Pollenizer provides so-called "strategy cards." These strategy cards are labeled with guiding questions, which are meant to advance the next steps of the start-up project.
As described in the preceding remarks, Pollenizer supports idea development as well as the development and performance of experiments. The support for the different process steps ensues by means of simple templates. Dedicated collaboration functionalities as well as the depiction of the entire customer development process are missing though.

Survey.io. Survey.io is a web-based tool helping start-ups analyze the needs of their customers and deduce insights from this analysis. To this end, start-ups can conduct customer surveys and systematically analyze as well as interpret the results thereof. As part of the interviews, predefined questions can be used as well as self-defined questions added.
By means of the outlined functionalities, Survey.io supports the development and performance of tests. Further process steps are not supported by the software.

Verify. The web-based software Verify and its range of functions focus on the evaluation of new product designs. For this purpose, start-ups can upload depictions of their software prototypes to the software and subsequently conduct systematic user tests. Within the scope of these tests, start-ups can use various predefined test methods. These include, among others, "memory tests," "click tests," and "preference tests." The test results are then systematically aggregated and documented. This enables start-ups to systematically evaluate their design prototypes.
By means of the presented scope of functions, Verify supports the draft and performance of experiments as well as the inference of conclusions from the conducted tests. Due to the focus on design prototypes, only a small range of experiments is offered.

User Testing. User Testing also focuses on drafting and performing user tests. In order to obtain this goal, start-ups can determine their target group based on a network of potential testers and invite test users. Subsequently, the test method is specified. For this purpose, own test procedures as well as the to-be-tested MVPs can be defined. The range of possible tests includes, among other things, the testing of landing pages, the performance of longitudinal studies and A/B tests, as well as usability and reaction tests. Moreover, the software offers the possibility of contacting experts, who can support the conceptual design of the tests. As part of evaluating the test results, videos of the tests can be accessed. Further, quantitative test assessments can be viewed and shared with other users.
In total, User Testing supports the definition and performance of experiments as well as the inference of conclusions for the further development of the start-up project. Due to the high variance of possible tests and its provision of test users and experts, the software offers a high order of support for the mentioned process steps.

Quick MVP. The software Quick MVP enables start-ups to test their developed MVPs and evaluate the findings of these tests. Within the scope of these tests, the identified customer needs can be validated by means of customer interviews. In doing so, the software supports the selection of the most important customer needs as well as the conceptual design and documentation of the interviews. Moreover, developed MVPs can be tested by means of the software. To this end, the software offers a variety of templates enabling the compilation of MVPs without in-depth programming knowledge. Finally, Quick MVP enables consolidating and systematically evaluating the test results.

Unbounce. The software Unbounce focuses on the design and testing of so-called landing pages, which are applied as MVPs in the context of customer development for start-ups. This software enables start-ups to design new landing pages themselves or select from different predefined landing pages, respectively. By means of the software, the created landing pages can also be improved with regard to the conversion rate of the visitors.
By the use of this function range, Unbounce supports the process step of designing MVPs. It further enables the conceptual design and performance of tests as well as their systematic evaluation.

Typeform. Typeform is a web-based platform enabling start-ups to create and conduct user surveys. To this end, MVPs can be created by means of predefined templates. The software also provides templates for user surveys, which can be chosen by the start-ups. The performance of the tests and the evaluation of the test results can be depicted by means of the software. All process steps can be performed collaboratively within the software.
Overall, Typeform supports the design of new MVPs as well as the conceptual design and performance of experiments. The software further enables a systematic evaluation of the different tests. Moreover, it offers an extensive selection of templates and assistance for the performance of the single process steps.

Table 2 depicts the findings of the preceding analyses in summary. As can be seen, only Lean Monitor supports all customer development process steps. The solutions by LeanStack, Pollenizer, Survey.io, Verify, and Unbounce support in particular the testing of new business plans as well as the evaluation of such tests. Due to the strong focus on technical artifacts, only a limited range of possible tests is supported. In this context, only the solutions by User Testing, Quick MVP, and Typeform support a wide range, by means of which a variety of different tests can be performed.

Table 2 Summary of the Findings of the Online Search

	Definition of the Business Idea	Creation and Validation of Hypotheses	MVP Design	MVP Evaluation	Further Development of the Business Plan
Lean Monitor	●	●	○	●	●
LeanStack	○	○	○	◖	◖
Pollenizer	○	○	○	◖	◖
Survey.io	○	○	○	◖	◖

Verify	○	○	○	◐	◐
User Testing	○	○	○	●	●
Quick MVP	○	○	●	●	●
Unbounce	○	○	◐	◐	◐
Typeform	○	○	●	●	●
Legend:	● Full Support		◐ Partial Support		○ No Support

5 Conclusion and Future Research

The identification and depiction of individual customer development process steps (for start-ups) in a logical process order represent a core contribution of this paper, which have until now only occasionally been considered in the literature. As outlined, a holistic consideration of the customer development process for start-ups has been ignored in the literature. Hence, our holistically depicted process offers a systematization and order of the individual process steps, which have previously only been separately considered and discussed in the literature.

The process, holistically outlined by us for the first time, serves our completion of an advanced analysis meant to reveal whether and to what extent the individual process steps or partially connected process steps are supported by information technologies in practice. As revealed by the analysis, different commercial providers supporting the individual customer development process steps by means of web-based software solutions already exist. However, a closer look at the identified solutions shows that there is a strong focus on testing virtual prototypes. The phases of idea development as well as the development of appropriate hypotheses to test the ideas are missing entirely. The development of suitable MVPs has so far also only been considered in individual cases. Based on these insights, three subject areas can be revealed, which should be addressed as part of future research:

1) Based on the missing consideration of idea, hypotheses, and MVP development, future research should examine to what extent these process steps can be performed with IT support. In this context, researchers should investigate which tools can be used for the systematic deduction of new business ideas. Moreover, the question of how identified ideas can be converted to appropriate hypotheses needs to be answered. Further, future work should deal with the question of which kinds of MVPs can be developed and tested on virtual platforms and how this can be realized.

2) The question of which functionalities and competencies customers have to exhibit is closely connected to the design of the functionalities allowing for the virtual inclusion of future customers. Until now, only little is known about the characteristics of the customers who are able to provide profound and helpful feedback on the respective start-up projects. An analysis of these characteristics would enable future entrepreneurs to purposefully search for appropriate customers and to include them in the advancement of their own start-up projects.

3) Another subject area that calls for future research regards the analysis of the potential of IT support for customer development. In this context, future research should investigate how IT support in the different process steps of customer development affects the quality of the start-up project. Hereby, the evaluation of whether IT support for this

process makes sense and whether the assumed potentials can be realized becomes possible.

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