

RESEARCH

Benjamin Krischan Schulte

Staying the Consumption Course

Exploring the Individual Lock-in
Process in Service Relationships



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Process in Service Relationships

Benjamin Krischan Schulte
Berlin, Germany

Dissertation der Freien Universität Berlin, 2014

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ISBN 978-3-658-08787-6 ISBN 978-3-658-08788-3 (eBook)
DOI 10.1007/978-3-658-08788-3

Library of Congress Control Number: 2015930454

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Danksagung

Diese Dissertation wurde zwischen 2011 bis 2014 am DFG Graduiertenkolleg „Pfade organisatorischer Prozesse“ der Freien Universität Berlin erarbeitet. Im Laufe des Prozesses, der nicht immer linear oder anspruchslos war, hatte ich Unterstützung zahlreicher Menschen. Ohne diese wäre die Arbeit in der vorliegenden Form nicht möglich gewesen, daher möchte ich ihnen an dieser Stelle danken.

Mein besonderer Dank gilt Prof. Dr. Henning Kreis und Prof. Dr. Alfred Kuß für die Betreuung der Promotion, der Unterstützung im Iterationsprozess des Forschungsvorhabens, und die Erstellung der Gutachten. Ferner Prof. Dr. Martin Gersch, der als dritter Betreuer und Träger des Graduiertenkollegs wichtigen Input geleistet hat sowie Herrn Prof. Dr. Leonard Dobusch, der sich bereit erklärte meiner Promotionskommission anzugehören. Die empirische Studie dieser Arbeit beruht auf der Bereitschaft von 41 Masterstudenten der Freien Universität Berlin immer wieder Fragebögen auszufüllen. Vielen Dank für Ihre Hilfsbereitschaft und für Ihr Vertrauen.

Für Lektorat am Manuskript dieser Arbeit, hilfreiche Kommentare, und stets aufbauende Worte danke ich Dr. Simone Maria Ostermann, Dr. Annika Lorenz, M.Sc. Raphael Schöbel, M.Sc. Sandra Just, Lasse Hørby, und Robin Kieviet. Ebenfalls großer Dank gebührt M.Sc. Sibel Siray, M.Sc. Sabrina Gottschalk, und meiner Familie: Meinen Eltern Heike Schulte und Hans-Georg Schulte sowie meiner Schwester Lisa Maria Schulte. Danke für eure bedingungslose Unterstützung, Akzeptanz, und die offenen Ohren auf meinem Weg hierher und auch in der Zeit am Graduiertenkolleg.

Berlin im November 2014

Benjamin Krischan Schulte

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List of Abbreviations

ANOVA	Analysis of Variance
CSI	Customer Susceptibility to Interpersonal Influence
D/O	Consideration to Drop Out
DFG	Deutsche Forschungsgemeinschaft (German Research Foundation)
EPS	Extended Problem Solving
FUB	Freie Universität Berlin
LPS	Limited Problem Solving
MCAR	Missing Completely At Random
N/A	Data Not Available
PC	Personal Computer
PFC	Preference for Consistency
R	“R” Environment for Statistical Computing
REM	Regret Experience Measure
RQ	Research Question
SPSS	Statistical Package for the Social Sciences
SSTS	Situation Specific Thinking Styles
TIPI	Ten Item Personality Inventory
VHS	Video Home System
WOM	Word of Mouth

1. Introduction

“Human life occurs only once, and the reason we cannot determine which of our decisions are good and which bad is that in a given situation we can make only one decision; we are not granted a second, third, or fourth life in which to compare various decisions.”

Milan Kundera (1984), *The Unbearable Lightness of Being*

1.1 Problem Area

Decisions we make in our lives often lead us down a path. Picking a place to live, a partner to live with, a major in high-school, a subject of study or an area for job training are good examples. These *watershed* decisions do not come easy and we are uncertain about quality and outcome of our options. With limited time, choices, and resources on our hands we make these complex decisions both under social influence and influenced by expectations based on our past experience. When we evaluate them afterwards, we at times regret the path chosen and consider other paths.

The process following such decisions leads us further down the path determined at the time of the decision. Evaluation occurs regarding the decision, comparing available choice alternatives and future prospects at the beginning of and during the process. When these evaluations are not in favor of the choice – we are dissatisfied with the process or the outcome – we do not quit easily, or at all. We often stick to a decision and remain loyal for various individual reasons. Conceivably because it is hard to evaluate other possible paths or return to the outset, we have good reasons to stay and, as the quote by Kundera (1984) suggests, we often can only make one such decision at a time. This may make it more and more difficult to exit a path.

In many cases such decisions entail a consumption process consentient with economic principles: The decision is made in a market from available choices and depends on financial resources, ability, individual and environmental influence. There is marketing activity in these markets in order to decrease the market’s inherent uncertainty and attract appropriate consumers to make choices. The relationship term has entered the area of marketing research to better describe the process properties and the relational aspect of such decisions, including those for child care or schooling, education, healthcare and doctors, profession and place of residence. Loyalty to such a decision or *relationship* may have good reasons. In some cases however, dissatisfaction, lack of

commitment, and regret cause us to reconsider the path. Frequently, individuals end up remaining loyal to the path and try to reconcile their evaluation with their loyalty.

Consider the path following a decision in *higher education*. The educational path is entered with incomplete information about the choices and consequences, insecurity about future employment opportunities, influenced by an individual's preferences and background – a good example for uncertainty about the outcome of a decision that has characteristics of consumption. Sometimes, people get off their path and try something else, but in most cases, people maintain a particular consumption *course* once taken. At least some students at any given time consider dropping out because they perceive a lack of fit. The reasons to stick to a path despite such a perceived lack of fit can be various, sometimes unconscious and rarely only – or even primarily – be attributed to an objective evaluation in favor of the current path.

1.2 Motivation, Relevance, and Research Questions

The motivation to explore individual persistence and loyalty regarding important decisions in consumption and its process spans various research disciplines. Much of behavioral research is interested in explaining individual decision behavior in complex contexts and with counterintuitive loyalty outcomes. An explanation employed in research in order to describe maintenance of such a path contrary to individual evaluation is the **lock-in effect** – referring to persistence in a decision.

The interplay of satisfaction and loyalty, decision-making and regret, and process elements of service relationships, is relevant for such lock-in. Lock-in can occur for consumption goods that are purchased repeatedly despite the availability of superior alternatives. This work however focuses on more fundamental individually important decision paths, like the ones referred to in the introduction. It proposes that some individuals in important consumption decisions experience individual lock-in at a point of such a relationship process, where *individual path dependence* leads them to be loyal – i.e. persist in the choice – despite a lack of fit in cognitive perception of the decision or the process.

The term lock-in is used spuriously throughout the fields of *economics*, *marketing* and *consumer behavior*, describing different things on different economic layers. Tapering, inhibition of the latitude of decisions and intensity of commitment to a path are common themes. But how does lock-in work in such consumption processes and are there observable and potentially controllable mechanisms in place that lock individuals in? *Path dependence research* has come a long way in answering this question and the

answer appears to be yes. The extensive research in this area provides a concept of the lock-in process and the conditions it entails. At the onset, research took an aggregate view of the lock-in phenomenon, but the relevance of the individual level as the basic decision level is implicitly and explicitly evident. Mechanisms were identified for reinforcing path dependence both with individuals and on higher levels. Correspondingly, there have been calls for increased consideration of interdisciplinary research with regards to sub-optimal process outcomes and path dependence (Garland 2005).

The decision is a central aspect of individual path dependence. The consumption context, particularly its cognitive and psychological dimension, makes the phenomenon interesting for *consumer behavior research*. There the described outcome is also referred to as *consumer lock-in*. Even though a clear conceptualization in conjunction with path dependence is still lacking, individual decisions and persistence are well understood. This work can contribute to this body of research by pointing to the process dimension of complex decisions and uncertainty considerations. Such decisions are relevant and require a clearer model to identify the phenomenon in research as well as in practice.

This also points to the relevance of the described phenomenon in related fields. One example is the often cited, *inextricable*, and still incompletely conceived connection of the satisfaction and loyalty constructs (Oliver 1999) which is of central interest in the service and relationship marketing fields. Satisfaction is widely assumed to lead to loyalty. While increased satisfaction is a central goal for services marketing activity, many researchers have identified this link to be weak in the development of service relationships. Defection of consumers occurs even at high levels of satisfaction and other factors must be relevant in this realm, telling companies to *learn from customer defections* (Reichheld and Sasser 1990; Reichheld 1996). *Customer relationship development* is congruently one of the future directions stated for relationship marketing by Patterson and Ward (2000). This work views the described relationship from the opposite angle, considering dissatisfied consumers who nonetheless stay loyal. Such loyalty without a positive attitude towards a product or a provider has also been described as *locked in* by some researchers (Farrell and Klemperer 2007; Farrell 1987; Klemperer 1987; Shapiro and Varian 1999). There is however limited understanding of the individual cognition in the process, including the behavioral and attitudinal aspects of this phenomenon. The need for a clear model of what lock-in means in this context motivates this work. The managerial implication of this goal could be summarized as telling companies to also *learn from loyal customers*, in order

to increase quality of service and better fulfill customer expectations (Parasuraman, Zeithaml, and Berry 1985a). The following research questions guide this work:

RQ 1: Why do individuals stick to a consumption process in a manner that can be described as locked-in?

RQ 2: What type of consumption decision is likely to facilitate consumer lock-in?

RQ 3: How does the consumer lock-in process work and what mechanisms work for the development of locked-in consumption behavior? Do these mechanisms justify calling the lock-in path dependent?

RQ 4: How does the modeled understanding of the phenomenon unfold empirically in a consumer relationship that fits the properties of an individual path dependent process?

The first three questions aim at a theoretical reasoning for the described phenomenon, based in research. They are answered based on existing research, forming propositions. These propositions are summarized in the development of a process model for the consumer lock-in process in services, based on an understanding of individual lock-in in path dependence. The last question aims at an empirical assessment of the theoretical model. Hypotheses regarding the empirical context are derived from the model and then tested in an explorative panel study, employing qualitative and quantitative methods.

1.3 Structure of this Work

To answer the research questions, this work follows the structure presented in Figure 1. In Section 2 the **theoretical foundation** indicates phenomena and relevant aspects of individual behavior that contribute to an outcome that implies *inflexibility*, *rigidity* or *persistence*. This section brings the different strands of research in path dependence, consumer behavior and services and relationship marketing together in developing propositions on properties of the consumer lock-in process.

In Section 3 the relevant theoretical points are summarized in a **general model** of the individual lock-in process in the context of service relationships. The propositions developed in Section 2 are integrated with the process model and consumer lock-in mechanisms are described with regards to relevant switching costs. The primary contribution of this research is this model that reflects the relevant aspects of the development of individual path dependence in continuous service relationships. The model can be adapted to particular service relationship contexts. The section ends with

an introduction to research idiosyncratic to the field of empirical inquiry: higher education services, which inspires the adaptation of the general model. Hypotheses are derived to test for the manifestation of consumer lock-in.

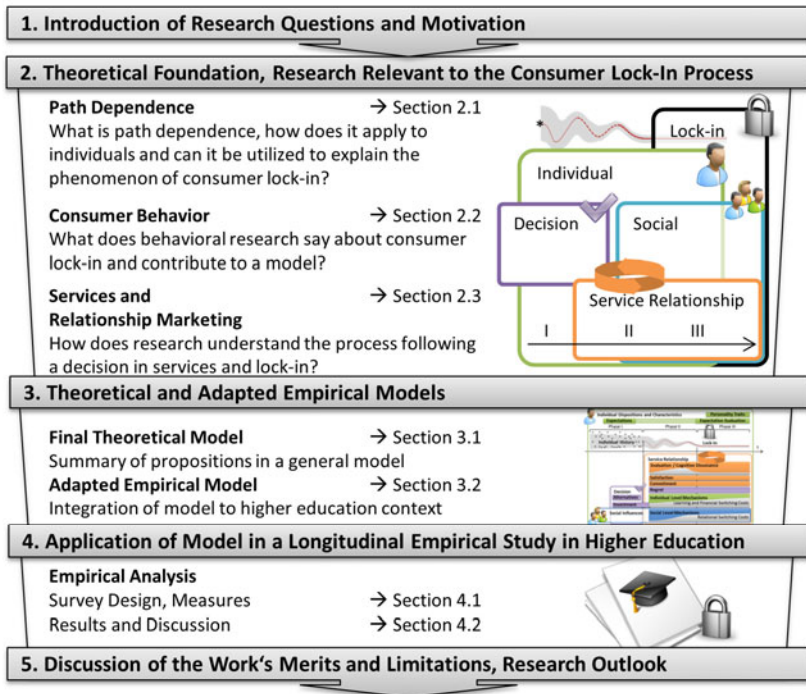


Figure 1: Structure of this Work and Logical Contents.

In Section 4 the methodology and design of the **explorative empirical study** are presented and the results analyzed. The study serves both to validate the general model as well as the underlying assumption that consumer lock-in is a phenomenon that can be identified for some students in terms of the decision context, mechanisms and a phase-based process.

Section 5 provides the **final discussion** of the merits and limitations this work provides to the different research disciplines presented in Section 2 and beyond. Since the developed model is adaptable to different contexts, as is shown in Section 4, other relevant research areas are considered in the outlook.

The overall goal is to get a grasp on an elusive phenomenon that has an individual psychological as well as a social, and a path process dimension – *consumer lock-in*.

This is achieved through review of research, deduction of model implications, and an empirical test of the model. The symbols are used throughout this work; they are detailed in Appendix A.

2. Theoretical Foundation – Path Dependence, Consumer Behavior, and Service Relationship Research

Not every decision made in consumers' daily lives is alike and the phenomenon described in the introduction may only apply to certain situations. The first research question of this work breaks this phenomenon down to its constituting features.

RQ 1: Why do individuals stick to a consumption process in a manner that can be described as locked-in?

Elaboration of the central theoretical terms is necessary to answer this question. This includes path dependence on the individual level, sticky or persistent consumer behavior, and lock-in to a consumption process that follows the decision in service relationships. To reach this goal, this theoretical section transcends three fields of research. Each part provides an outline of relevant aspects mentioned in research in the fields of path dependence, consumer behavior and relationship marketing, aimed at answering this question. Figure 2 provides an overview of the fields covered in the following sections and the main aspects they focus on in explaining consumer lock-in and answering the first research question.

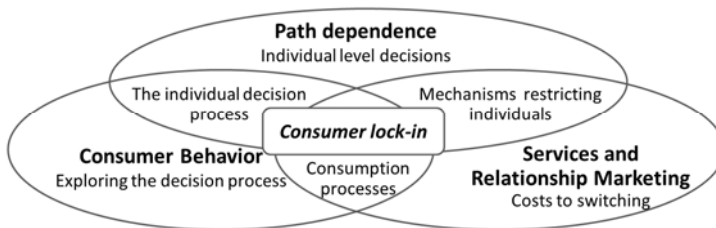


Figure 2: Intersection of Main Theoretical Fields Transcended in this Work.

Section 2.1 starts with an outline of *path dependence research* and then discusses the applicability of the organizational and individual path dependence concepts to individual persistence in a process. The focus is on the individual cognition within a course of action, so this is where the elaborations continue. The discussion ends with the proposition that the theoretical framework presented is applicable to individual consumption as an economic layer, making evident that the mechanisms at work here need to be reconsidered.

The next section focuses on *consumer behavior research*, centered on the decision making process on this economic layer: individual behavior. Four relevant aspects and concepts are differentiated in such a process: The pre- and post-decision phases, individual differences and environmental influences. After identifying service relationships as relevant, the focus moves to the consumer side as an *individual* and his perception and behavior within such a relationship process.

This leads over to Section 2.3, where the individual behavioral process is embedded in a particular consumption context: the *service relationship*. The section discusses relationship research focusing on service properties as a prerequisite for a lock-in process, the relational focus of some services and the particular mechanisms that may come to carry here. Relationship marketing is discussed, particularly with regards to the strategic dimension of marketing activity in such services. The relational aspect is identified as the relevant mechanism for lock-in in service relationships. In certain service contexts, the two parties interact with each other and also third parties are involved on a social level, particularly in the kinds of services relevant for this work.

At the end of each part describing a research field, the connection and contribution to the goal of this work are summarized with regards to the creation of a theoretical model of consumer lock-in in a service relationship. Research propositions are derived and a definition of consumer lock-in for this work is developed. These are relevant for the model as the findings of this section form the foundation of the theoretical model development.

2.1 Path Dependence and Individual Lock-in

To understand the phenomenon of lock-in, Section 2.1.1 introduces to the origins of the path dependence concept in research and the initially outlined mechanisms leading up to lock-in. The process character of lock-in was more clearly outlined in a body of organizational research that contributed a clear model and further developed the character of the involved lock-in mechanisms, which is outlined in Section 2.1.2.

The process and its mechanisms are described as inherently *social*. Focusing on the social science approach, the concept of increasing returns mechanisms that can amount to lock-in is further elaborated (Pierson 2000) and categorized in Section 2.1.3. Next, in Section 2.1.4, research on individual path dependence is dissected to find the constituting features of lock-in on this level, focusing on mechanisms relevant here.

Section 2.1.5 provides a summary where the phase-based elaboration from organizational research is combined with social and individual aspects. The individual

process of becoming path dependent is differentiated into three phases and propositions are derived.

2.1.1 The Origins of Path Dependence in Technology

When trying to understand how the lock-in phenomenon differentiates from other types of persistence and incorporate the process character of lock-in, there is no way around path dependence research. The character of dynamic lock-in processes is reflected in a growing body of research that started with the works of David (1985) and Arthur (1989) on path dependence in technology decisions.

Path dependent processes are governed by an actor's past decisions – while an actor may feel free and rational in a decision at any given time, he is actually constrained to a *path* due to his choice history and influenced by that of others. The common examples refer to technological path dependence: The dominance of QWERTY keyboard layouts (David 1985) and the prevailing of the VHS format compared to alternatives (Arthur 1988). These technologies are assumed to have had a head start and subsequently turned out as suboptimal choices. Nonetheless there was lock-in on the market level to these technologies – alternative technologies did not have a chance of adoption. In this conception of path dependence, lock-in applies to new actors entering the market. Their *rational* choice is influenced by the choice history of others, up to the point where the decision is deterministic – a market lock-in to one technology.

This classic path dependence concept points to the relevance of *self-reinforcing mechanisms* or *increasing returns mechanisms* as a cause of developing persistence over the course of the process due to a *selection advantage* that results in lock-in. The scope of this concept also includes *social dynamics* involving social interactions among economic agents (David 2007). In his work on *Self-Reinforcing Mechanisms in Economics*, Arthur (1988, 2004) describes his idea of dynamic systems in economics that work similar to those observed in physical and biological systems. Local positive feedback mechanisms are introduced as a situation where an initially arbitrary advantage is positively reinforced and magnified. He describes four mechanisms reinforcing such initial advantages as relevant for the development of technological path dependence: *Large set-up or fixed costs*, *learning effects*, *coordination effects* and *adaptive (self-reinforcing) expectations*. These mechanisms raise barriers – costs that have to be overcome to exit the path.

The centrality of the mechanisms is a shared feature of all notions of path dependence found in research, while they differ depending on the context. The following points illustrate Arthur's understanding of these mechanisms in technologies:

- The *initial* and/or *sunk investment costs* incurred due to a technology choice reinforce a choice, because they are difficult to transfer or reverse.
- *Learning* occurs due to idiosyncratic experience in a given technology, which similar to sunk costs is hard to transfer and increases the value of the technology (Arrow 1962).
- *Coordination* with other agents on a choice benefits the technology down the road, analogous to the concept of network externalities (Katz and Shapiro 1985, 1986).
- Similarly, dynamic *expectations* due to experience and belief of agents reinforce the selected technology.

The consideration of these mechanisms however goes further than technologies (Arthur 1989; David 1985); similar effects have been identified for path dependence in institutions (North 1990), in political processes (Pierson 2000) and organizations (Schreyögg and Sydow 2011; Sydow, Schreyögg, and Koch 2005, 2009). The organizational path dependence concept presented in the next section left out *large set-up or fixed costs (economies of scale and scope)* and *network externalities* but added the aspect of *complementary effects*, further adding to a mix of mechanisms that appear to depend on the context of lock-in.

Mechanisms in this context are described as sequential along the process, reinforcing the choice and thus leading to persistence in that choice – an equilibrium due to positive feedback that would have similarly lead to reinforcement of another choice (Arthur 1990). New entrants are faced with this situation and base their choice on a critical mass of previous adopters. Technologies available earlier have an advantage in this system, even if they are not superior.

Main features of the process in a mathematical sense are *unpredictability*, *inflexibility*, *non-ergodicity* and *potential path inefficiency* (Arthur 1994a). Random early events make the process unpredictable in the beginning. It is inflexible in that the further down one path an actor has progressed, the less flexible he becomes. Non-ergodicity refers to the chance of multiple outcomes or equilibria, with small and early events determining the outcomes. Lastly, the potential path inefficiency is defined as that a locked in choice may generate lower pay-offs than a forgone alternative. This inefficiency can take different forms and is difficult