The Study of Bootlegging Initiatives in Service Organization

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DECLARATION

I hereby declare that this thesis has not, and will not be, submitted in whole or in part to another university for the award of any degree.

Signature　　　:

Date　　　　　:　　31st October 2020

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ABSTRACT

This thesis uses a mixed methods approach to examine three main ideas that focus on bootlegging initiatives that have been conducted in service organizations in Malaysia. Bootlegging initiatives have been portrayed as predevelopment activities to protect ideas from the "disapproving power in the organization" when faced management barriers. The term therefore refers to bottom-up self-initiatives that occur without official mandate but nonetheless with the aim of benefitting the organization. Bootlegging initiatives are also considered as a source of organizational change; whereby employees do things in a radical and ingenious way. Their implementation, however, is argued to disrupt management's formal innovation framework and bootleggers can be posited as people who lead to negative outcomes and harm the organization.

The first essay explores the phenomenon of bootlegging by focusing on its antecedents, strategies and outcomes through a qualitative case study. We conducted interviews at different hierarchical levels: senior managers, unit managers and team members to accumulate seven case studies. The level of normative enforcement of the rules and strategies of the next level of management is a prime antecedent of bootlegging behaviour. The result also suggests that the impact on a bootlegger's career development could be either positive or negative, with even successful initiatives potentially being detrimental to the bootlegger. This depends on the strategies that have been used to legitimize the initiatives internally and externally. Unauthorized and reworked initiatives are suggested to be types of bootlegging initiatives. To ensure these initiatives are fully accepted and adopted by management, internal and external consensus need to be established, and internal bricolage and external resources need to be deployed to foster the development of the initiatives, since initial resources can only be allocated for official projects. There is no guarantee that these strategies will help the bootlegger to a bright future career, however.

The first empirical chapter investigates whether bootlegging initiatives at a unit level are fostered by the unit managers, who were shown to engage with both constructive and deviant behaviour. We retrieved the data set from a survey study across three levels in a large organization: senior manager, unit manager and frontline employees involved in Technical Vocational and Educational Training (TVET) in Malaysia. The results provided evidence that the unit's bootlegging initiatives were positively significant with leaders' constructive deviance, and the impact was greater when senior managers and employees also portrayed constructive deviant behaviour. We used the behavioural contagion theory along with the theory of social identity to prove whether the contagion of constructive deviant behaviour could be disseminated from leaders to their followers, with the results supporting that contention.

The next empirical chapter investigates "unauthorized initiatives" and "reworked initiatives" which can eventually be accepted and adopted by management , thus constituting a bootlegging success. Specifically, data were extracted from the managers of 230 units within a large organization in Malaysia. The findings of this chapter indicate that coalition strategies such as internal and external coalitions, and seeking external resources, ultimately reduced bootlegging success. When the internal bricolage strategy interacts with bootlegging initiatives, however, there is more change of bootlegging success, leading to a positive impact on a unit's innovative success. The results also indicate that a bootlegger will experience adverse career effects, but the impact can be reduced when leaders show a transformational leadership style.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

1. DD   – Division Director
2. FE   – Frontline Employee
3. HRD   – Human Resource Development
4. ICU   – Implementation Coordination Unit
5. LMX   – Leader-member Exchange
6. NCIA   – Northern Corridor Implementation Agency
7. NDTS   – National Dual Training system
8. OCB   – Organization Citizenship Behaviour
9. RD   – Regional Director
10. SOP   – Standard Operation Procedure
11. TVET   – Technical Vocational Education Training
12. UM   – Unit Manager

CHAPTER ONE – INTRODUCTION

1.1. Introduction

This thesis examines bootlegging initiatives that are believed to foster service innovation in service firms. We link bootlegging behaviour (Augsdorfer, 1996), and constructive deviance behaviour (Dahling *et al.*, 2012; Vadera, Pratt and Mishra, 2013; Dahling and Gutworth, 2017) with the literature stream on service innovation to explore new service innovation. It is only in recent years that bootlegging has emerged in the literature as a development approach that ignores formal rules, procedures and monitoring systems, partly because of noticeable success of product innovations or process improvements (Masoudnia and Szwejczewski, 2012; Criscuolo *et al.*, 2014; O'Cass and Wetzels, 2018).

Studying the what, the how and the consequences of bootlegging initiatives in service innovation is an extremely important, but so far, neglected research topic. This study is therefore framed as a mixed methods investigation comprising both qualitative and quantitative elements, within a case study of a large service organization involved in technical training programmes in Malaysia.

This thesis takes a three paper approach, where the first chapter (introduction) outlines the research's theoretical justification and details the research context and data collection. The three papers are then presented consecutively in Chapters 2, 3 and 4.[1] Lastly, Chapter 5 presents a summary of the contributions of this thesis and discusses some policy implications.

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[1] As we have written chapters 2–4 as standalone papers please be aware there is some repetition in the papers e.g. in terms of methodology.

1.2. Service Innovation

Service innovation is the continuous renewal of service processes and offerings. It is a vital component of service-oriented firm's efforts to remain competitive and thus a significant engine of overall economic growth (Thakur and Hale, 2013; Snyder *et al.*, 2016). Service innovation has therefore been regarded as a strategic priority for service research (Ostrom *et al.*, 2015). Based on a Schumpeterian perspective, it is defined as a new service, or a renewal of an existing service, which (1) is put into practice and (2) provides benefit to the organization that has developed it, and where (3) that benefit usually derives from the added value that the renewal provides to customers (Toivonen and Tuominen, 2009). Firms such as IBM, Starbucks and IKEA have learnt to focus on customer service and to create new customer experiences in order to revitalize their competitive positions and advantages (Snyder *et al.*, 2016).

Scholars in service innovation have increasingly sought to review the service innovation literature in order to delineate important insights into the current state of the field (Storey *et al*. 2016). To date, service innovation creates value for business owners, employees, customers, alliance partners and communities through new and/or improved service offerings, service processes, and service business models (Ostrom *et al.*, 2010). It is difficult to generalize about new service development, however, because services are very heterogeneous and dependent on contingent factors (Kuester *et al.*, 2013). Despite the growing recognition of the importance of understanding service innovation, scholarly reviews of the relevant literature have highlighted that the body of research "fails to provide practitioners with consistent answers to basic questions about how to most effectively manage new service development processes" (Biemans, Griffin and Moenaert, 2016; Storey *et al.*, 2016). In addition, firms' ability to develop and innovate new services has always been seen challenging because a 'one-size-fits-all' approach in service

innovation is no longer appropriate and there is no guarantee that service innovation can be successfully initiated (Storey and Hull, 2010). This means that service firms sometimes struggle to develop new services since "the rules of the game" (i.e., the development process) experienced from new product development do not always work for new services (Storey *et al.*, 2016).

This potentially contributes to the "service paradox" in which the service companies struggle to generate profits from their service activities when investments and higher costs in services do not lead to the expected returns, (Gebauer, Fleisch and Friedli, 2005). This contributes to the weak financial position of many service organizations around the globe and is a key reason for business failures. This highlights why companies need to study and learn from failures to provide space for frontline employees to showcase their novel ideas and explore uncharted territories in a quest for sustainable advantage for the company.

It is in this context that the present study explains the importance of 'bootlegging' initiatives as a way of delivering service innovation that can more reliably drive service firms to reach sustainable competitive advantages. We define bootlegging as the process by which individual in the organization actively initiated innovation ideas that aim to benefit the organization without senior management's formal authorization or support (Augsdorfer, 2005). Bootlegging behaviour has been acknowledged as a behaviour that helps firms to attain positive innovation outcomes (Augsdorfer, 2005, 2008; Masoudnia and Szwejczewski, 2012). It is characterized as behaviour that emerges in a bottom-up process outside of formal management planning (Augsdorfer 2008). Bootlegging thus reflects that formal processes are sometimes insufficient in shaping strategy, especially in turbulent environments where firms are facing significant competition, and changes in

customer expectations, particularly in respect to a customer demand for more personalized and customized services and service solutions (Engen and Magnusson, 2018; Sok *et al.*, 2018).

Bootlegging initiatives have often been shown to have benefited firms via pre-research activities, product/process improvement, troubleshooting, new product development and purely scientific research. Bootlegging is also believed to have potentially emerged from the perspective of salespersons[2] (frontline employees) who directly serve customer requests or needs (Kelley, 1992) or who provide service customization (Bitner, Booms and Tetreault, 1990). Today's customers expect service providers to meet their customized needs and requests as never before (Karatepe, 2006), and some of these requests push frontline employees to adapt their service delivery and/or go beyond their typical service tasks. Customer requests are usually viewed as part of a customer orientation strategy (Hartline, Iii and McKee, 2012) and are important to fulfil if customer relationships are to be maintained (Wang, Beatty and Liu, 2012).

The unique element of bootlegging behaviour, however, is that it potentially enables employees' ideas to be creatively delivered in more dynamic, unpredictable and less standardized ways. In short, ideas are creatively developed based on information gathered directly from customers thus helping to ensure that customers' special needs can be served (Santos-Vijande, López-Sánchez and Rudd, 2016; Coelho, Lages and Sousa, 2018; Siahtiri, 2018).

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[2] The study shows that employee customer-centred behaviours were positively related to sales (Kizilos, Cummings and Cummings, 2013).

It is this realization of the potential power of bootlegging that started to give momentum to it as a topic of academic enquiry (Criscuolo *et al.*, 2014; Globocnik and Salomo, 2015; Lenka *et al.*, 2018). As well as helping practitioners to analyse and explore more specific forms of management innovation, scholars may also reveal the particular combinations of innovation types that could help service delivery (Alexiev, Janssen and den Hertog, 2018).

There is far less understanding, however, about the organization for bottom-up creativity and the fuzzy front end of innovation genesis for new business ideas (Augsdorfer, 2005). The existing service literature is also limited in terms of assisting practitioners who want to start or improve their service (Biemans, Griffin and Moenaert, 2016).

1.3. The State of Bootlegging Research

The choice of developing and focusing this thesis on bootlegging initiatives, their antecedents, and the strategies that foster service innovation is thus of utmost importance. According to Knight (1967) bootlegging is a predevelopment activity that occurs without official mandate or to protect ideas from management barriers that represent the "disapproving power in the organization".

In this study, we define bootlegging as an individual self-initiative and bottom-up process that emerges outside management's formal innovation framework and thus has no management authorization and support while nonetheless aiming to deliver positive impacts or benefit to the company (Augsdorfer, 1996). Bootlegging initiatives are considered to be an ingenious way of proving the potential of ideas in situations where there is 'no hope for approval', enabling those ideas to be tested out of management sight and further explored under pre-development activity until their benefit to the organization has been proven (Augsdorfer, 2008). In essence, bootleggers could assist the management

to reduce the uncertainty surrounding decisions (Augsdorfer, 2005; Masoudnia and Szwejczewski, 2012) by allowing the monitoring and assessment of early-stage ideas until those ideas are better developed and shown to offer proven benefits. At this point they can be presented to management for acceptance and adoption for further development (Mainemelis, 2010; Bunduchi, 2017; Criscuolo et al., 2014).

Management, however, has a dilemma as to whether to permit or prevent bootlegging (Masoudnia and Szwejczewski, 2012). On the one hand, bootlegging can be seen as deviant behaviour that is potentially damaging to the organization, being described not only as unethical behaviour but as disrupting efficient management and the effectiveness of formal innovation controls. On the other hand, if bootlegging were to be prohibited this could act as a barrier to employee-led innovation and organizations may miss opportunities to explore "uncharted" areas that are difficult to reach through official programmes (Globocnik, 2019).

Prior studies have identified several instances where new products have been developed or processes improved via bootlegging initiatives, such as BMW's 12-cylinder engine (which won the "best innovators award" in Germany), Audi's Quattro wheel-drive, and Nichia's LED bright light technology (Augsdorfer, 2005; Masoudnia and Szwejczewski, 2012). It remains an open question, however, why even such successful bootlegging initiatives can be detrimental to the careers of the bootleggers. While many studies have demonstrated the importance of deviant actions in organization (Dahling et al., 2012; Madjar, Greenberg, & Chen, 2011; Vadera, Pratt, & Mishra, 2013), less attention has been given to the impact of deviance activities on employees' careers (Dahling *et al.*, 2012).

The current literature has also frequently identified organizational factors as the significant determinant factor for bootlegging (Augsdorfer, 1996, 2005; Masoudnia & Szwejczewski, 2012; Globocnik & Salomo, 2015) but the senior management level also can be a prime antecedent of bootlegging activities. To further understand the phenomenon of bootlegging in service firms during innovation, therefore, we research how the process of bootlegging initiatives and what conditions may favour the execution of bootlegging activities, including its antecedents, bootleggers' engagement strategies, and both organizational and individual outcomes.

Table 1.1 lists the articles that focus on bootlegging activities and highlights the research design, antecedents, mediators and moderators that have been investigated in previous studies.

Table 1.1: Review of Studies on Bootlegging Activities

Study	Definition	Research Design	Variables			Output / Findings
			Antecedent	Mediator	Moderator	
(Augsdorfer, 1996) Book Title: Forbidden fruit: An Analysis of Bootlegging Uncertainty and Learning in Corporate R&D,	'Bootlegging' or 'bottom-up and non-programmed' research activities undertaken secretly by individuals within organizations without "the official authorisation of the responsible management but for the benefit of the company"	Qualitative study - Interviews of bootleggers and managers at 57 R&D labs of large firms across three European countries, Germany, France and Britain.	(1) Strategy (2) Resources (3) Tight control (4) Decision process (5) Creative individual	-	-	
(Augsdorfer, 2005) **Title: Bootlegging and Path Dependency,** *Journal: Research Policy*	Individuals that secretly organize the corporate innovation process. It is usually a bottom-up, non-programmed activity, without official authorization from the relevant management, but nevertheless for the benefit of the company.	Qualitative study - 123 semi-structured interviews of head of R&D and bootleggers.	(1) Pre-research (2) Product of process improvement (3) Troubleshooting (4) New product and process (5) Development (6) Purely scientific research.	-		(1) 26 projects were accepted. (2) 3 projects were rejected. (3) 3 projects potentially rejected. (4) 2 projects were partly accepted. (5) 1 project was patented. (6) 1 project was continued to be developed under bootlegging.
(Augsdorfer, 2008) **Title: Managing the Unmanageable** *Journal: Research Technology Management.*	Individuals that secretly organise the corporate innovation process. It is usually a bottom-up, non-programmed activity, without official authorisation from the relevant management, but	Qualitative study – • 170 interviews session conducted at two levels hierarchy (1) Head of a laboratory and (2) Researchers. This study has been	(1) Pre-research – to gather as much as data to support the ideas, in turn to reduce management premature decision-making. (2) Lack of resources, the budget is already	-		

	nevertheless for the benefit of the company.	backed up with case studies. • 70 firms were selected in the United Kingdom, France and Germany.	allocated to formal projects. (3) Tighter management control mechanism (4) Creative researchers		
(Masoudnia and Szwejczewski, 2012) **Title: Bootlegging in the R&D Departments of High- Technology Firms,** *Journal: Research-Technology Management*	Bootlegging is a bottom-up activity, typically initiated by individuals low in the organization hierarchy; it is an underground activity that is unbudgeted, unofficial, and non-programmed.	Qualitative study – • Face-to-face semi structured interviews. • A two-step analysis process – (1) separate case, coded and analysed individually (2) cross-case analysis was conducted to compare participants and identify common themes.	(1) Decision maker did not understand the idea – way to collect evidence and reduce management's uncertainty and convince them of the viability of their ideas. (2) Immature ideas (3) Pre-research activities (4) To gather the required data - to show proof of concept or demonstrate the feasibility of the idea. (5) Market demand – approach the customer (6) Avoid psychological pressure.	-	Of 55 projects via bootlegging activity: • 35 resulted in product innovation. • 4 resulted in process innovation. • 5 resulted in invention. • 6 resulted in knowledge creation and learning. • 5 projects did not have any outcome.
(Criscuolo *et al.*, 2014) **Title: Going underground: bootlegging and individual innovative performance** *Journal: Organization Science*	Individuals' initiative that have no formal organizational support and are often hidden from the sight of senior management but are undertaken with the aim of producing innovations that will benefit the company.	Mixed method. Qualitative study – • Two-step approach: (1) Semi structured interview of 25 senior members and 10 R&D managers. Quantitative Study – • A survey of 600 senior scientists and engineers	Individual bootlegging	(1) Unit-level performance (2) Unit-level bootlegging activities (3) Formalizatio n period -	Innovative Performance: (1) Individuals' bootlegging (+) (2) Unit-level performance (+) (3) Unit-level bootlegging activities (+) (4) During a period of increased formalization, increases in

		• Innovative Performance: • Individual rating (Innovation rating for last three years) • Supervisor rating				individual bootlegging will be negatively related to their innovation performance.
(Globocnik and Salomo, 2015) **Title: Do formal management practices impact the emergence of bootlegging behaviour?** *Journal: Journal of Product Innovation Management*	"Self-initiated from the bottom up and it is not part of the organization's research and development program and may even ignore management directives".	Quantitative study – • 103 participants from 39 organizations. • Cross data between employee and supervisor.	(1) Strategic autonomy. (2) Front-end formality (3) Reward (4) Sanction (5) Intrapreneurial self-efficacy	(1) Intrapreneurial self-efficacy (+)	-	Bootlegging behaviour: (1) Strategic autonomy (+) (2) Front-end formality (-) (3) Reward (+) (4) Sanction (-) (5) Intrapreneurial self-efficacy (+)
(Globocnik, 2019) **Title: Taking or Avoiding Risk Through Secret Innovation Activities - The Relationships Among Employees' Risk Propensity, Bootlegging, And Management Support.** *Journal: International Journal of Innovation Management*	Innovation activities that are autonomously initiated and secretly organised by employees. Bottom-up activities and not part of the organisation's innovation programme and are executed by the bootlegging employees without official mandate or the knowledge of their management".	Quantitative study – • 92 participants from 15 different industries	(1) Risk propensity	-	Management support • Encouragement (+) • Resources (-) • Feedback (-) • Sponsoring (+)	Bootlegging behaviour: (1) Risk propensity (+)

1.4. Research Aims

This research will contribute at both theoretical and empirical levels to enhance understanding into how deviance induces creativity in organizations; namely bootlegging initiatives and constructive deviance fostering service innovation. The questions below arise from significant gaps in the literature relating to the interaction between bootlegging and service innovation.

- RQ1: How can bootlegging initiatives be initiated in service firms, particularly at unit level? – The role of bootlegging initiatives in fostering service innovation.

- RQ2: How can bootlegging initiatives be fostered by leaders? – The role of leaders' constructive deviance behaviour during service innovation process.

- RQ3: How can bootlegging initiatives be successfully accepted and adopted by the management? – The role of the coalition strategy and resource seeking strategy.

- RQ4: How can acceptance and adoption of bootlegging initiatives by the management affect units' innovation success and individual career development? – The role of transformational leadership and strategic autonomy.

These research questions, when successfully addressed, are expected to contribute in the management, strategy and innovation literatures.

1.5. Research Context and Data Collection

This research is framed as a mixed method study encompassing separate qualitative and quantitative studies within a large organization involved in Technical Vocational and Educational Training (TVET) in Malaysia. For our qualitative study (Chapter Two) we undertook face-to-face interviews with participants at different locations and at four different levels in the organization. In Chapters Three and Four, meanwhile, we

conducted a survey study of 230 units where our key informants were directors and deputy directors from 14 regional offices, unit managers from 230 units and two employees from each unit, totalling to 460 employees in all. Figure 1.1 shows the geographic area encompassed by our data collection.

The ability to reform and transform TVET delivery systems in order to meet industry demand is one of the firm's game changers for survival, and is the reason why this firm was selected. Over fifty types of technical programme have been developed by this firm and recently tailored to customer unique demand.

According to the ILMIA,[3] it is essential for TVET providers to enhance the quality of their programmes in order to meet industry demand for 1.3 million additional TVET workers by 2020. Currently, there are more than 500 TVET institutions (private and public) in Malaysia, sometimes offering similar programmes of variable qualities. The firm's initiative to operate in accordance with MS ISO 9001: 2015 – Quality Management Systems since 2017 has demonstrated how the management is striving to achieve a competitive advantage in this market.

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[3] The Institute of Labour Market Information and Analysis that operated under The Ministry of Human Resources responsible for analysis of labour market trends and emerging human capital issues which will contribute to better human capital planning and more effective formulation of labour market policies. https://www.ilmia.gov.my/index.php/en/research-publication/research
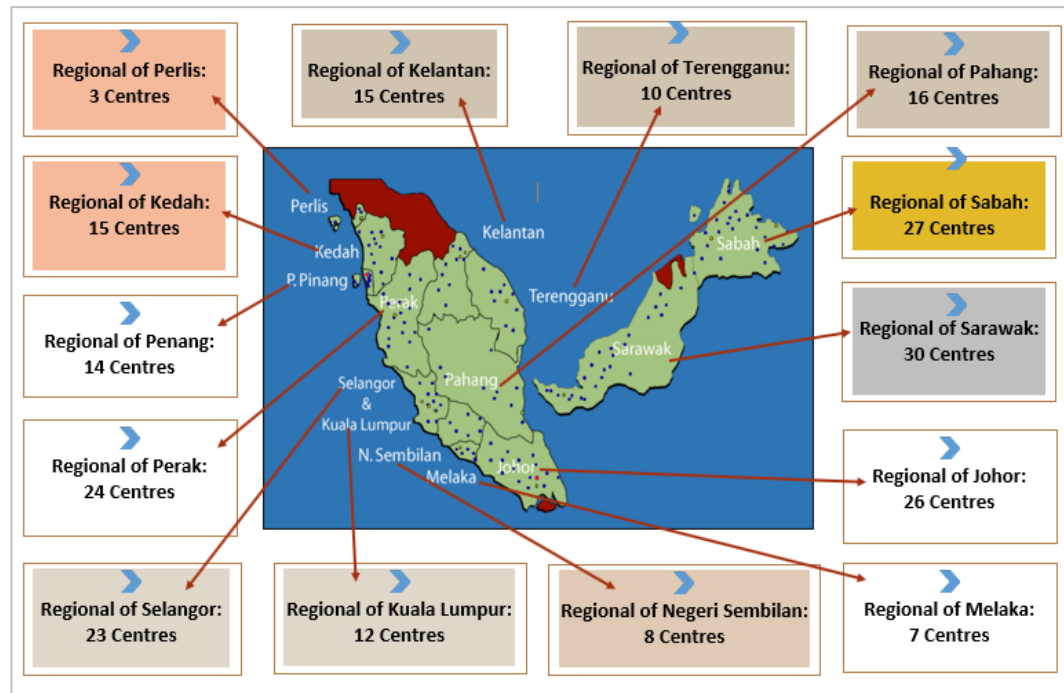
Figure 1.1: Data Collection Area

1.6. Approach of the thesis

In general, this thesis comprises three research papers where the first paper is aimed to study the bootlegging phenomenon, focusing on its antecedents, strategies and consequences through a qualitative case study investigation entailing face-to-face interviews with participants at different locations and at four different levels in the organization. We combined these with archival data such as project proposals, project reports, financial documents, slide presentations and meeting minutes (Eisenhardt and Graebner, 2007).

The second paper utilizes the survey study to examine unit managers' constructive deviance as an antecedent for unit members' bootlegging initiatives. We also investigate the contagion effects of constructive deviance on the leader-follower relationship.

Our last paper again uses the survey study to reveal the impact of bootlegging success; namely, management acceptance and adoption of bootlegging initiatives and the effect on

the unit, and the bootlegger themself. The paper also reveals the bootlegging strategies that strengthen the relationship between bootlegging initiatives and bootlegging success, and that in turn influence the impact on unit and individual performance. The details of these papers are explained below:

1.6.1. Chapter two: multiple dimensions of bootlegging initiatives in a service company: an exploration

In this chapter, we examine the phenomenon of bootlegging (after this known as bootlegging initiatives) by focusing on the antecedents, the types of bootlegging initiatives, the strategies that were deployed and the impact of bootlegging on the unit and individual performances. Further investigation of how bootlegging initiatives can be useful for firms is important and bootleg activities are needed as a new source for idea development and exploration that benefit firm's service innovation performance and indeed overall firm performance. Bootlegging initiatives reveal that the organization is currently facing management barriers to innovation and rapid corrective action is needed in this respect. Bootlegging initiatives are therefore suggested as an appropriate way to develop an idea via covert operation and until the idea is successfully developed, the management is proposed to be more flexible to allow the benefits to the organization to be proved.

The findings suggest that there is a need for management to strengthen internal systems by empowering employees to engage in radical service innovation (Goduscheit and Faullant, 2018). The existence of a high degree of formal process, bureaucracy, and insufficient resources for idea elaboration serve to disrupt the organization's service delivery, however.

Seven case studies were conducted, with the main participants being unit managers responsible for innovation in their units, with these responses then validated through interviews with senior managers from headquarters, directors in regional offices and frontline employees from the unit level. The results suggest that a level of normative enforcement of the organization's rules and strategy by the next level of management is a prime antecedent of bootlegging behaviour. In addition, however, entrepreneurial orientation, self-efficacy and customer orientation were found to be individual factors. The findings of this chapter also indicate that the two types of bootlegging initiatives that are usually engaged by unit managers were unauthorized initiatives and reworking rejected initiatives. To ensure that these two initiatives are successfully accepted and adopted by the management, the result shows that unit managers established consensus with both internal and external parties to influence management decisions. Unit managers were also found to engage in internal bricolage and sought external resources to support their projects, as well as support from internal and external parties in order to legalize the initiatives.

There is no guarantee, however, that these strategies will help bootleggers to have bright future careers. The results suggest that the impact on the careers of the bootleggers could be either positive or negative, and even successful initiatives can have been detrimental to the bootleggers themselves. This was dependent on the visibility of the project both internally and externally.

1.6.2. Chapter three: the role of constructive deviance in stimulating bootlegging initiatives at the unit level

Constructive deviance refers to behaviour that voluntarily breaks an organization's rules and norms with the aim of benefitting that organization, its member and stakeholders (Dahling *et al.*, 2012). Deviance is subjectively judged but when it is constructive it

reflects employees' willingness to reject organizational norms in order to serve a greater good and satisfy the needs and priorities of people both inside and outside of the organization (Warren, 2003; Dahling and Gutworth, 2017). Deviant employees challenge the organization's normative norms when they notice that those rules or norms have become harmful, dangerous, or no longer effective (Packer, 2008). Organizations can reap many benefits from constructive deviance behaviour since it can help the organization to change (Jetten and Hornsey, 2014) by challenging the status quo and organizational routines and norms (Furst and Cable, 2008) thus promoting employees' creativity (O'Connor, 2008; Benner, 2009).

We investigate the contagion of constructive deviance behaviour from leaders to followers at two vertical cascade stages. First, from senior managers to unit managers, and second, from unit managers to employees. We also looked horizontally at whether unit manager who consistently engaged in constructive deviance behaviour were able to influence unit members to engage in bootlegging initiatives.

Our results provide evidence for a positive association between leaders' constructive deviance and followers' constructive deviance. This proves that leaders who have strong transformational leadership styles could influence their followers towards constructive deviance and bootlegging. Specifically:

Followers' roles—we contend that constructive deviance behaviour could be transferred from followers to leaders since the role of followers is currently more crucial, particularly in terms of serving customers' needs (Wilder, Collier and Barnes, 2014) and solving customers' unique problems (Santos-Vijande, López-Sánchez and Rudd, 2016). A "One-size-fits-all'' service experience is no longer sufficient for customers whose needs are usually heterogeneous. Moreover, followers' position in service encounters requires them

to create novel ideas to develop "ad hoc innovation" (Gallouj and Weinstein, 1997), which is usually unplanned, and involving working jointly with customers to solve individual problems (Stock, 2015; Santos-Vijande, López-Sánchez and Rudd, 2016).

Leaders' roles—the tendency for followers to engage in constructive deviance behaviour also can be seen from the perspective of the leaders' roles. Leaders are argued to play an idealized role model, stimulating and encouraging innovative work behaviour, providing inspirational motivation and engaging in supporting and mentoring followers to achieve the organization's shared vision and goals (Bass and Avolio, 1994; Bednall *et al.*, 2018). Moreover, they provide favourable environments that encourage employees to engage in unconventional behaviours and perceive autonomy in their creative pursuits (Jaussi and Dionne, 2003; Gernreich and Knop, 2019).

Frequently, leadership has been suggested to be a critical success factor for product/service innovation (Evanschitzky *et al.*, 2012; Storey *et al.*, 2016). Further, the literature on leader-member relationships identifies leaders' direct influence on employees' extra-role behaviour, particularly in terms of how leaders can motivate employees to exert extra efforts towards their work and organization (Martin *et al.*, 2016). In that respect, this study offers a broad venue within which to examine leaders' constructive deviance behaviour and employees' emotional states, like their "willingness to go the extra mile".

The existing literature usually highlights that the follower's reciprocal on the programme that is only in line with management's policies or orders and plans. Obviously, constructive deviance against normative enforcement and following unit managers' bending of organizational rules risks inducing management dissatisfaction. Consequently, followers may be wary of endangering their careers by following their

leaders in such behaviour. This research, therefore, contributes to the literature by offering a rigorous study of deviant workplace behaviour that is not inherently positive or negative, but focusing rather on how leaders' constructive deviance influences employees to act with similar deviance behaviour, which over the time could lead them to engage in bootlegging initiatives.

In this chapter, therefore, we reveal how unit managers who routinely engage with constructive deviance behaviour over time influence unit members to engage with bootlegging activities in the future. Managers' deviance activities encourage employees to be more creative in generating novelty services, creating more dynamic approaches to delivery processes and adopting new knowledge for the development of new services that can help their organizations to remain competitive (Storey and Kahn, 2010; Storey *et al.*, 2016).

The work in this chapter also shows, however, that the more novel an idea, the more uncertainty can exist about whether that idea is practical, useful, error free, and reliably reproducible (Mueller, Melwani and Goncalo, 2012). Furthermore, managements' efforts in cultivating and encouraging creativity are inconsistent because creative ideas that contain novelty can also promote a tension in senior management's minds. In particular, if creative employees' ideas challenge established routines, open up avenues for uncertainty or dissipate scarce organizational resources, including time, financial and technical logistics, they are frequently rejected by management and instructed to stop working on them, even in the middle of the development process (Olin and Wickenberg, 2001; Mainemelis, 2010; Hammedi, Van Riel and Sasovova, 2011; Mueller, Melwani and Goncalo, 2012).

Faced with this risk, unit members can engage with bootlegging initiatives as a way of avoiding premature management decisions until their ideas are well developed and shown to offer proven benefits to the organization. The results also show that leaders who consistently engage with constructive deviance also strongly influenced unit members to engage with bootlegging initiatives. Further, the study provides evidence that the impact of unit manager's constructive deviance behaviour on unit members' bootlegging initiatives can be strengthened when leaders and employees in the organization are also committing constructive deviance behaviour.

In sum, we extend our understanding of the consequences of constructive deviance, hypothesizing that, at a business unit level, members are likely to engage with bootlegging activities if constructive deviance behaviour is regularly deployed by their unit managers.

1.6.3. Chapter four: bootlegging success: the impact and moderating factors

In the fourth chapter, we investigate how unauthorized bootlegging initiatives and reworked rejected initiatives can eventually be accepted and adopted by management; what we refer to as bootlegging success. There is also a recognized need to study the conditions under which deviance behaviours, particularly bootlegging initiatives, are more likely to be implemented successfully (Vadera, Pratt and Mishra, 2013; Globocnik and Salomo, 2015; Dahling and Gutworth, 2017). This chapter, therefore, focuses on the strategies that have been deployed by unit managers in order to ensure that their bootlegging initiatives are recognized by management. In addition, we also answer a call for research exploring the mechanism through which bootlegging initiatives influence unit performance (Augsdorfer, 2005).

Bootlegging success refers to the extent to which bootlegging initiatives are successfully accepted and adopted by the management. It is important ultimately to have

management's recognition of bootlegging initiatives because, although bootlegging activities are initially conducted without management mandate or authorization, their ultimate legitimization provides unit members with access to formal resources for further elaboration of their ideas.

Results showed that strategies such as coalition with internal and external parties, and the unit's creativity in providing their own resources, enhance the likelihood bootlegging initiatives being successful. The importance of collaboration during product/service development has indeed frequently been portrayed in product and service innovation research (Ommen *et al.*, 2016; Cui and Wu, 2017; Storey and Larbig, 2018). Empirically, however, we do not know to what extent those strategies could be worthwhile to deploy under bootlegging conditions. So, we conceptualize coalition strategy and resources strategy able to convince management members to buy in the bootlegging initiatives.

In this chapter, we show the impact of bootlegging success on two important distinct outcomes; (1) unit innovative success reflects an organizational measure of performance and, (2) individual adverse career effect. We believe the adaptation to new approaches of work might lead to an increase in firm innovativeness (Tuominen, Rajala and Möller, 2004; Akgün, Keskin and Byrne, 2012) and encourage individual's self-interest-driven or value-driven individual actions (Gajduschek, 2003) and increases employees' freedom. Bootlegging success is believed to improve organizational delivery processes with fewer standard operating procedures, thus connecting unique problems with novel or new solutions (Barker and Mone, 1998).

Individual activities that deviate from organizational norms are usually regarded by management as threatening organizations and their stakeholders (Robinson and Bennett, 1995). On the other hand, employees who commit whistle blowing, prosocial rule-

breaking and issues selling, which are all kinds of constructive deviance (Vadera, Pratt and Mishra, 2013; Dahling and Gutworth, 2017) have been seen by management as seeking to harm others or benefit themselves (Vardi and Wiener, 1996).

This chapter, therefore, sheds light on individual dilemmas in respect to engaging in bootlegging initiatives. . There is also evidence that strategic autonomy provides employees with more work discretion, and this has been argued to motivate individuals to engage with bootlegging initiatives (Globocnik and Salomo, 2015). Higher levels of work freedom provide employees with more personal discretion for deviant behaviour and serve to stimulate innovation in organizations via bottom–up processes. It also enables managers to exploit firms' competitive advantages and explore tomorrow's opportunities (Covin and Miles, 1999; Kuratko, Hornsby and Bishop, 2005). This allows more effort to be devoted to the realization of innovation projects and motivates employees to explore uncharted areas (Howell and Higgins, 1990). We argue, therefore, that the extent of units' strategic autonomy is linked to bootlegging success, in turn affecting unit's success in innovation.

Another issue that this paper explores is whether the interaction of transformational leadership with bootlegging success has a significant influence on employees' career development. We suggest that leaders with transformational leadership could contribute something towards people who engage with bootlegging initiatives. It is important to figure out, however, whether such leaders are capable of absorbing the negative impact on employees' career development.

Existing literature regarding leader-member relationships usually manifests that transformational leaders have a direct effect on employees' motivation, morale and empowerment (Dvir *et al.*, 2002). Further, leaders with a transformational leadership style

motivate employees to perform beyond their expectations and challenge them to adopt innovative approaches in their work (Chen *et al.*, 2014). In fact, this kind of leader often acts as an example for team members (Podsakoff *et al.*, 1990) with positive effects on employees' satisfaction, commitment and performance (Fuller *et al.*, 1996). As yet, however, there has been little in the way of research to link transformational leadership under a bootlegging context to employees' level of career satisfaction.

In this chapter, therefore, we look at the possibility that bootlegging success can have a negative impact on employees' careers. In particular, senior management members have not favoured bootlegging activities even when the initiatives deliver proven benefits to the organization. In that context, senior managers with high transformational behaviour are able to inspire, motivate and intellectually stimulate employees to develop the new or improved products/services that are critical for organizational innovation (Elkins and Keller, 2003). Furthermore, when leaders aim to benefit the organization they tend to be more flexible and more willing to accept individuals that engage in bootlegging initiatives. They may turn a blind eye to the bootlegging initiatives, thus enabling some of the bureaucratic processes at the front-end of the innovation process to be avoided (Hlavacek and Thompson, 1973; Augsdorfer, 2008). Thus, we hypothesize that there could be a link between leaders who exhibit transformational leadership and the prevalence and success of unit members' bootlegging initiatives.

The findings of this chapter indicate that even though bootlegging initiatives have a positive impact on bootlegging success, coalition strategies, particularly internal and external coalitions and external resources deployed during the bootlegging process, failed to support bootlegging initiatives and in fact reduced bootlegging success. On the other hand, internal bricolage—"making do whatever in your hands"—has a positive influence

on bootlegging success. This shows that the coalition strategies and the use of external resources are not success predictors for bootlegging initiatives but that internal bricolage is. Further, the results indicate that management recognition of bootlegging initiatives has a positive impact on units' innovation success but not on bootleggers' career development. Individuals with successful bootlegging initiatives were found to have experienced adverse career effects. Nevertheless, the results provide evidence that these adverse career effects could be reduced when leaders exhibit a transformational leadership style.

CHAPTER TWO - MULTIPLE DIMENSIONS OF BOOTLEGGING INITIATIVES IN SERVICE ORGANIZATION: AN EXPLORATION*

2.1. Introduction

Individuals play a critical organizational role in generating novel and suitable products, and dynamic processes and approaches to remain organizationally competitive (Gilson and Shalley, 2004). They can drive an organization's success with new ideas to explore and exploit the opportunities in an uncertain and fast-moving world (Kanter, 1983). As an organization becomes more decentralized, flexible performance-oriented and global (Crant, 2000; Parker and Collins, 2010), it has become necessary for actors to be more creative and innovative in the way they perform their jobs (Birkinshaw, Hamel and Mol, 2008).

In this study, unit managers are focused as bootleggers; who are defined as those who usually engage with non-authorized ideas that come from a bottom-up process without senior management support, but whose actions benefit an organization (Augsdorfer, 1996). A bootlegger is believed to seek their resources and bypass management's formal communication channels to elaborate on their ideas (Mainemelis, 2010). They are similar to an autonomous strategic initiative (Burgelman, 1983a, 1983b) that would create new business (product/market) opportunities without contradicting an organization's strategies (Augsdorfer, 1996). There are many benefits that companies could reap from bootlegging action, for example, cost effectiveness by making use of unused resources (Augsdorfer, 1996), a trial and error learning process (Augsdorfer, 2005), and delaying the monitoring and assessment of early-stage ideas until they are better developed (Mainemelis, 2010). BMW's 12-cylinder engine (Augsdorfer, 2008), membrane filtration system (Augsdorfer, 2005), The Godfather films, and LED bright lighting (Mainemelis,

2010) are among the bootleg projects that have been successfully produced without management authorization and support at first.

Despite these contributions, bootlegging actions also potentially create disharmony in an organization. It is claimed that they debilitate an organization's strategic focus and distract resources, e.g. human and financial, away from current formal projects. Furthermore, failures of bootlegging projects mean that the time and resources already invested in developing ideas are wasted because they are not the management's business priority (Masoudnia and Szwejczewski, 2012).

Management's concern about employees' deviant behaviour is now growing since it could be detrimental to their organization's financial well-being (Appelbaum, Iaconi and Matousek, 2007). Moreover, managers who bypass formal communication channels and violate rules are generally viewed as having deviant behaviour that could induce management dissatisfaction. It is thus deeply embedded in the mind of management that bootlegging is a kind of deviant behaviour that is associated with negative consequences (Robinson and Bennett, 1995).

Bootlegging behaviour usually occurs outside of the organizational norms; it remains unclear how the bootlegging process is initiated and which conditions may favour its execution. Although it has been shown to produce many important innovations (processes improvements and new products), it leaves the management in a serious dilemma. The strict prohibition of bootlegging would impede employees' innovative behaviour and organizations may miss opportunities to explore 'uncharted' areas that are difficult to reach through official programmes. In contrast, if permitted, it has been claimed to disrupt management's efficiency and the effectiveness of formal innovation controls.

Despite extensive interest in bootlegging activities in the areas of product improvement and new product development, previous research has so far neglected to study this behaviour in service firms. The primary objective of this article, therefore, is to bridge the gap between existing research into bootlegging and the managerial challenges involved in realizing bootlegging activity in service firms. Specifically, this research explores the role of senior management as antecedents to bootlegging initiatives and seeks to clearly identify the types of bootlegging initiatives and whether these are 'unauthorized by management' or 'rejected by management'.

Further, we explore the strategies employed to bring bootlegging initiatives to fruition, and their impact on performance (both from a unit and an individual perspective). Due to a lack of existing theory regarding this relationship, we adopted a multiple case study approach to address 'how' and 'why' questions in investigating bootlegging antecedents, strategy and outcomes (Dyer and Wilkins, 1991; Eisenhardt, 1991; Yin, 2009). Specifically, seven bootleg case studies that had been implemented in the last three years within one large organization were investigated.

2.2. Significance of the Study

This study aims to make three principal contributions to theory. First, answering a recent call for more research into the factors affecting the emergence of bootlegging (Mainemelis, 2010; Globocnik and Salomo, 2015), this research aims to extend our understanding of the role of senior managers and bootleggers themselves in undertaking bootlegging. We detail two types of initiatives carried out by bootleggers: namely 'unauthorized initiatives' and 'reworked initiatives'. These can be undertaken in either covert or overt ways. To the best of our knowledge this is the first paper that specifically distinguishes between the types of bootlegging initiatives. Although studies have

highlighted the conditions under which bootlegging emerges (Augsdorfer, 2008; Masoudnia and Szwejczewski, 2012; Globocnik and Salomo, 2015), little consideration has been given to senior managers' responses to subordinates' ideas that can eventually lead to the emergence of bootlegging initiatives.

Second, there is a recognized need to study the bootlegging phenomenon in depth, particularly in regard to its process (Globocnik and Salomo, 2015). Previous studies have failed to emphasize the strategies utilized in the realization of bootlegging ideas. In this study, however, we learned that in the case study organization bootlegging initiatives were strategized via consensus building and that the bootlegger either gained support within the organization or strong support from external stakeholders, or both.

The consensus is also that it is vital for bootleggers to provide their own resources, either from inside or outside of organization, since there is initially no budget allocated for bootlegging initiatives (Baker and Nelson, 2005; Witell *et al.*, 2017). This means that it is important for bootleggers to be able to demonstrate the benefit of their initiatives to the organization because it is that provides access to the firm's resources and opportunities to receive an official budget from the management and formal consent for bootleg projects to be developed further.

Finally, recognizing that there are examples of significant bootlegging initiatives that have benefited organizations (Augsdorfer, 2008; Mainemelis, 2010), we extend research to demonstrate the outcomes of bootlegging on the performance of units and managers. The impact on the person carrying out the bootlegging activity is one area that the literature has not yet addressed in depth. Although the findings showed that the organization under study has reaped positive outcomes from most of the bootleg projects,

managers' engagement in bootleg actions seemed to have mixed positive and negative implications for those managers.

2.3. Research Method

2.3.1. Research approach – case study selection

This research uses multiple case studies to provide a detailed account of the bootlegging phenomenon (Eisenhardt, 1991; Yin, 2009) due to it being inadequately explained by existing theory (Eisenhardt and Graebner, 2007), particularly in management studies.

Because bootlegging activities occur outside of normative procedures and fewer people are willing to use illegitimate methods to progress ideas, bootlegging is a unique phenomenon to study. To address this, and recognizing the limited data on the phenomenon, we seek to obtain a rich dataset that can capture the details of and generate novel insights into bootlegging activities (Benbasat, Goldstein and Mead, 1987). We address the 'how' and 'why' questions of four different hierarchies to understand the antecedent factors of bootlegging, bootleggers' strategies and their impact on the unit, managers, and frontline employees. Following established procedures and in order to generate contrary results (Yin, 2013; Eisenhardt, 1989) seven bootlegging cases were selected that occurred during the last three years[4] in one large organization.

The case organization is currently involved in Technical Vocational and Educational Training (TVET) in Malaysia and we believe that the bootlegging activities in this organization will enable us to answer our research questions in detail due to the highly vertical and horizontal structure that this organization has. The ability to reform and transform the TVET delivery system to meet industry demand is one of the game changers

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[4] The study is started in 2016

for the firm's survival, and is a further reason why this firm was selected. In addition, with more than 2000 employees that operationalize over 50 types of technical training programme in 230 branches scattered throughout the country, it could possibly be considered to be a bureaucratic institution.

To select the case, we first had discussions/telephone calls with several senior managers at the Headquarters and the Regional Office, specifically the Human Resources Department (HRD), Entrepreneurship Development Department, Research and Development Department and Internal Audit Unit. We later organized informal meetings with frontline employees to verify whether the cases were appropriate to our research context.

2.3.2. Overview of data

We conducted face-to-face interviews at four different hierarchies at different times and locations and combined these with archival data such as project proposals, project reports, financial documents, slide presentations and meeting minutes (Eisenhardt and Graebner, 2007). Figure 2.1 shows the approach of interviews that have been cross-validated, and Table 2.1 provides a summary of the data sources for the background to the case study. Table 2.2, meanwhile, presents an overview of the interviews and interviewees, including their position in the hierarchy and their roles in the organization, as well as the reasons why they were selected.

Out of 28 participants, seven were bootleggers, who were all unit managers responsible for innovation in their units. These were validated by interviewing senior managers from headquarters and the regional office; eight division directors and five regional directors respectively. We also interviewed eight team members from the unit level. The interviews

started with undirected topics in an informal way and all the participants were then informed about the study's purpose and prospects.

We frequently addressed bootlegging action as a creative and innovative style of work that was supposed to be passed to everyone in the organization, thus helping to establish trust with participants. The interviews were conducted through video teleconference and online calls. The interviews lasted between 60 and 90 minutes and were structured into five sections:

(1) the reasons why the bootlegging initiatives were undertaken.

(2) the objectives of the bootlegging initiatives.

(3) the factors that stimulated the bootlegging initiatives (e.g. internal and external environment, individual characteristics).

(4) the ways in which the bootlegging initiatives were implemented.

(5) the outcomes (e.g. unit and manager performance).

The interviews were recorded, transcribed, revised, corrected and shared with the participants to increase the validity and reliability of the research.
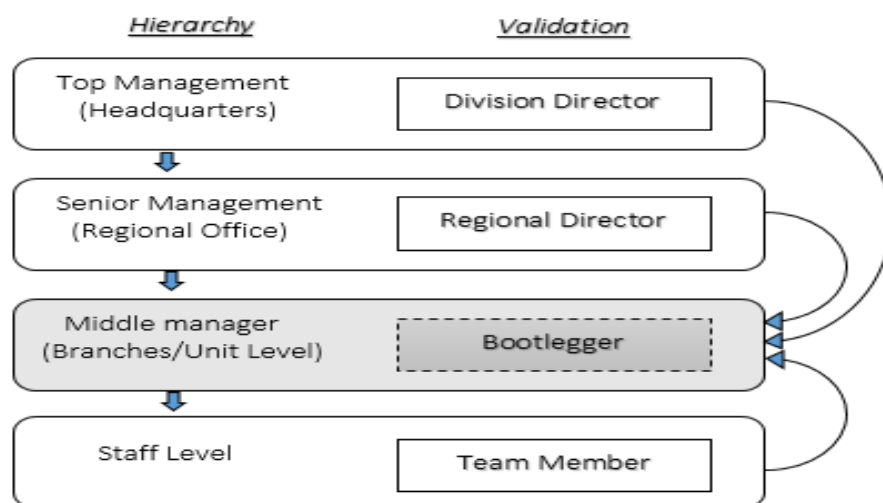
Figure 2.1: Overview of interview approach

Table 2.1: Summary of data sources

Cases	Bootlegging Initiatives	Interviewees					Archival Data
		DD	RD	UM	FLE		
GV-H (D1)	Project improvement for new market	2		1	1	•	Proposal Document
						•	Visual Presentation
NC-A (D2)	Project improvement and new project development	1	1	1	1	•	Visual Presentation
						•	Meeting Report
						•	Website
						•	Management Circulars
F-D (D3)	Project improvement for new market	1	1	1	1	•	Proposal Document
						•	Management Circulars
3-D (D4)	New project development	1		1	2	•	Visual Presentation
						•	Meeting Report
						•	Website
						•	Management Circulars
SALES (D5)	Project improvement	1	1	1	1	•	Project Proposal
						•	Meeting Report
						•	Project Report
						•	Visual Documents
C-nary (D6)	Project improvement for new market	1	1	1	1	•	Visual Document
						•	Proposal Document
						•	Management Circular
F-4 (D7)	Project improvement	1	1	1	1	•	Visual Documents
						•	Proposal Document

DD = Division Director (Headquarters), RD = Regional Director (Regional Office) UM= Unit Manager, FE = Frontline Employee

Table 2.2: Overview of interviews and interviewees

Level	No of interview/ Interviewees	Role in the organization	Reason for selection	Interview Questions
Top Management **Division Director** (e.g., Human Resource Director)	n = 8	• Manages human resources daily operations for example recruiting, selecting, orienting, training, coaching, counselling, and disciplining staff; planning, monitoring, appraising, and reviewing staff job contributions; compensation; productivity, quality, and resolving problems; implementing change.	• To identify key actors (unit manager) who embark bootlegging behaviour in the organization.	• Do you know anybody (unit manager) doing bootleg projects in his/her unit? • What is the reason for doing bootlegging? • Are they more productive? • What are the benefits and challenges of bootlegging behaviour in this organization?
Regional Director	n = 5	• The main duty of a Regional Director is to supervise and monitor the execution of technical training program that has been run by unit manager.	• To review the novelty of the bootlegging project. • To understand how it can be successfully implemented.	• Do you know the reasons why he/she is doing bootlegging? • How can you by-pass the planning process? • What is in it for the bootleg researcher? • Are they more productive?
Unit Manager	n = 7	• Develops and administers technical training programmes for trainees, assesses training and helps individuals and groups develop skills and knowledge, creates training manuals, monitors training for effectiveness.	• The key actors for the success of the bootlegging project in the organization. • To understand the factors that motivate unit managers to perform bootlegging behaviour.	• Does your boss know about it? • What is the reason for doing bootlegging? • How can you by-pass the planning process? • What are the benefits and challenges of bootlegging

				behaviour in this organization?
Frontline Employee (Vocational Training Officer)	n = 8	• Vocational Training Officers develop the National Occupational Skill Standards (NOSS) curriculum and prepare training materials, teach or train students for employment. • Managing and providing training including teaching plans, explanatory papers, working papers, task lists and teaching aids as well as ensuring trainees acquire skills, and teaching practical and theory sessions;	• To understand the various social contexts that have been established between unit managers and frontline employees during the implementation of bootlegging.	• How do team members respond to unit managers' bootlegging behaviour? • What are the benefits and challenges of bootlegging behaviour in this organization? • How do unit managers' leadership styles influence team members to support bootlegging behaviour?

2.3.3. Data analysis, coding and structure

The cases were first analysed by developing an individual case study profile (Eisenhardt, 1989; Yin, 1990), documenting this in an historical, chronological sequence and then dividing it into four sections.

Firstly, we explained the 'why' questions; i.e. the reasons why the bootlegging initiatives were undertaken. We then highlighted the senior managers and the unit manager behaviours as individual factors that were linked to the bootlegging antecedents. In the second part, we focused on 'how' the bootlegging activities were carried out; we found two types of bootlegging initiatives, namely 'unauthorized initiatives' and 'reworked initiatives', that had usually been pursued by either covert or overt approaches. Thirdly, the research outlined consensus building, resource acquiring and legitimacy seeking as bootlegging strategies that moderate between bootlegging activities and bootlegging performance. Finally, we portrayed the unit and bootleggers performance as bootlegging outcomes.

All of the cases were then compared through a cross-study analysis (Eisenhardt, 1989) and synthesized using the Atlas.ti programme (Rambaree, 2012). We compared, segregated and categorized the codes according to their relationship, and reached thirty-two codes that served as our final 1st order. We continuously iterated, assessed and refined the categories to improve their definitions until we derived fifteen themes as 2nd order categories.

Eventually, seven themes were decided after revisiting the data and existing literature, as we believed we were able to identify novel relationships between the themes and theoretical dimensions (Eisenhardt and Graebner, 2007). In Figure 2.2, we illustrate our data structure.

| 1st order Codes | | 2nd order Categories | Themes |

Bootlegging Antecedents

(1) Management emphasized the policies, rules and regulations (2) Employees must follow the standards & procedures. (SOP).	⇨	Rules & Regulations	
(1) Top manager afraid to make the decision (2) Refused to take the risks (3) Centred decision.	⇨	Culture of Risk Aversion	Senior Manager Factor
(1) Initiator pro-activeness & innovativeness (2) Energetic and hardworking (3) Idealistic.	⇨	Entrepreneurial Orientation	
(1) Strong belief in its own capability (2) Good networking (3) Risk taking.	⇨	Self-Efficacy	Unit Manager Factor
(1) Meet the industrial requirements and demands.	⇨	Customer Orientation	

Bootlegging Activities

| (1) Bootleg initiative conducted without proposal to management (2) Deviant approach either overt or covert. | ⇨ | Unauthorized Action | Bootlegging Initiatives |
| (1) Bootleg initiative is conducted after the idea had been rejected by management (2) Approach either overt or covert. | ⇨ | Rejected Action | |

Bootlegging Strategies

(1) Team members' engagement (2) Bootlegger approached the superior (3) Another stakeholder's agreement	⇨	Preparatory stage	Consensus Building
(1) Bootlegger's commitment from beginning (2) Members' empowerment (3) Promote connectedness	⇨	Execution stage	
(1) Unused equipment is reused (2) Manipulate other internal resources.	⇨	Internal resources gathered	Resource Seeking
(1) Resources are borrowed from other branches (2) Resources are shared with other branches (3) Other grants received.	⇨	External resources gathered	
(1) Initiator presented successful project to management (2) Informal networking with supervisor is established.	⇨	Internal legitimized effort	Legitimacy Seeking
Formal agreement and promises with the external agencies/firms or other stakeholders are made in advance.	⇨	External legitimized effort	

Bootlegging Performance

(1) Bootleg project's recognition and further development (2) Additional budget received by organization.

Promotion, reward and study scholarship, transferred, dropped from the team, verbal warning and closely monitored.

Unit

Manager

Bootlegging Outcomes

Figure 2.2: Data Structure

2.4. Research Analysis and Research findings

2.4.1. Bootlegging antecedents: senior manager and unit manager factors

Our results show that two people have important roles to play in the emergence of bootlegging activities in this organization. These are the senior manager, i.e. the person to whom the unit manager reports, and the unit manager, i.e. the bootlegger themselves.

'Senior manager factor' – The senior manager's risk aversion, and their emphasis on rules and regulations are two factors that we found as contributing to bootlegging activities. Their avoidance of risk shows that they were not ready to take responsibility if the initiative failed, even though new things could be explored by the staff that could benefit the organization. For example, the unit manager at the D1 case informed us:

> *"The management members are non-risk takers. They refused to take the risk. Suppose they have to take the risk, but they didn't. It is becoming a culture now. If the idea or proposal does not come from or through them... they will say "that is not my responsibility; it is beyond our boundaries". When it has been done for so long, it will become immune".*

This argument was later supported by the regional director at the D1 case when he indicated:

> *"For me, they (senior managers) did not have enough confidence about the programme. Some of them felt so worried about whether the programme would fail. It could give management a bad reputation, and they would be accountable for it. Therefore, some of them had to make a decision and decided not to take the risk; all the proposals must be thorough and approved by them first".*

In another case, D5, we were informed that the bootlegging initiative was formed due to the rigidity of the senior manager in respect to the rules and procedures. Unit managers decided to disobey the procedures and ignored the senior manager's instruction to withdraw the programme. He said:

> *"We tailored the programme based on our situation, even though the idea and concept were originally from headquarters. We decided to allow about 40% of external entrepreneurs to join the event together with our alumni. However, it was*

opposed by senior managers as they said the programme was purposely designed for our entrepreneurs, and eventually rejected my ideas. So, we decided to avoid the decision because it was seen as inappropriate and contradicts with our initiative aims".

In this case, the senior management's position arose from their concerns that external entrepreneurs might dominate the programme, and this could affect the alumni's young entrepreneurs. The unit manager's idea, however, was to blend both internal and external entrepreneurs to attract more people to the event. Doing this would expand the entrepreneurs' business linkages and networking, and their opportunities for selling and promotion, in addition to giving them exposure—especially for some young businesses that were felt to be struggling to survive. The senior manager's tight control and strictly-enforced procedures resulted in the unit managers sometimes challenging and breaking workplace rules. They did not do this out of disloyalty but because they were passionate enough to go against practices and norms that found excessive, and because they realized that there was the potential to reap many benefits from doing so.

'Unit manager factor' – From a unit manager's perspective, our findings tell us that the extent of their entrepreneurial orientation, self-efficacy and customer orientation played significant roles in motivating them to engage in bootlegging activities in their unit. Organizational actors that usually portray entrepreneurship characteristics, for example, by being energetic and hardworking, creative and innovative, idealistic and rarely emphasizing routines, have a high likelihood of engaging in bootlegging initiatives. A frontline employee in the D4 case shared her feelings and experiences by telling us that her manager was an energetic and hardworking person who was always creating something different from others. She quoted:

"Feeling different. I used to work with several managers, but I found the current manager is a little bit hyper and always creating something that other people have not done yet. He is not like others who just followed instructions. He always comes

with new ideas, and I think he is capable of delivering them. I am happy working with him".

She further added that the unit manager strongly believed in his capability to achieve the programmes' aims. It was this that gave the manager high confidence in success, even though he would have to face various obstacles. It also revealed the unit manager to be a person who is willing to take the risks of dealing with uncertainty, since he believed in the potential for successful outcomes, even if these could only be achieved by engaging in bootlegging actions. She described her unit manager to us:

> *"He's brave and willing to take risks. Very confident about the programme becoming successful. He can make decisions, flexible and tolerant, creative and willing to accept staff ideas. For us, he is a leader. We assumed that whatever he wanted us to do, he had already done the research and knew what the impact would be. The way he walked and the way he talked was like he is very confident, and that is why we became confident too".*

In addition, we were also told that the manager's good social network with external parties—for example government agencies, private firms, local politicians or other stakeholders—would enhance the managers' self-efficacy. This encouraged unit members to take risks, act bravely and go beyond their boundaries by increasing their levels of confidence about developing initiatives and allowing them to be successfully implemented. The Regional Director of the D6 case mentioned to us that the bootlegger used his good relationship with the local politicians as a backup to support his bootlegging initiatives. This was later confirmed by a team member in the D6 case. As we were told:

> *"He had a good connection with the politicians since before he moved here, and therefore he managed to get them to support the activities. Having the politicians as a backup sometimes seemed good, and they were always behind him."*

Finally, we were told that the desire to meet customer needs could also explain the emergence of bootlegging activities. For example, the unit manager in the D2 case mentioned to us that he had to initiate a bootlegging initiative due to the gap between industrial practices and the current organization's project. He was determined to bypass

the management's formal communication channels in order to equip the branches with the resources and reduce the mismatch between staff and industry requirements and standard practices. He said:

> *"I've got a long experience in the industry. Why am I committed to this? I've seen that this organization has a big challenge to provide and equip all the branches with updated industry tools and equipment. Moreover, some of the staff are rarely exposed to real industrial practises, and some of them lacked the industry's values".*

2.4.2. Bootlegging initiatives: Unauthorized initiatives vs reworked initiatives

The case studies identify two distinct types of bootlegging initiatives, which are labelled as 'unauthorized initiatives' and 'reworked initiatives. These two types of initiatives were commonly engaged in by the bootlegger, using either a covert or an overt approach. 'Unauthorized initiatives' were preferred when the bootlegger's idea initially had 'no hope for approval'. In that scenario, the bootlegger decided to elaborate his idea without proposing the idea to the management directly. On the other hand, 'reworked initiatives' were conducted only after the management had formally rejected a bootlegger's ideas. Table 2.3 shows the profile of bootlegging initiatives.

Unauthorized Initiatives – In the D1, D2, D3 and D4 cases bootlegging initiatives were established directly—without management acknowledgement—at the beginning of the process. The unit manager articulated a "Do it first is better" perspective because of the belief that the proposal would be rejected if it were first presented to the management. The decision to bypass the management's formal communication channel was thus made to avoid premature decisions on the part of the management. The bootlegger in the D2 case told us that he did not propose the idea because he was afraid that the management would reject it. He stated:

"I don't believe my proposal could be worked from the bottom if I followed proper channels. There were many groups with different styles of thinking at the senior manager level and it would put my ideas in danger, and it would waste my time".

In another case, D3, there was strong evidence of unauthorized initiatives. The management was only informed about the bootleg project after it had been conducted for several years. The unit manager said:

"The project was started in 2013, and I only presented the idea to the management after several years of student intakes were made. I convinced them [management] that the programme had already been run."

This statement was later confirmed by the division director when he stated:

"The project had already been run for ages… Yes, she might have thought that her proposal would be rejected if she proposed it to the management. The management normally would not approve projects that have already been conducted in any close branches to avoid competition between each other".

Reworked initiatives – In contrast, there were cases such as D5, D6 and D7 where the bootlegging was conducted after an official proposal to management had been rejected. In these cases, therefore, the bootlegger initially followed the management's formal communication channels in proposing their idea, but then took the risk to proceed with the proposal after management rejection. For example, for the D5 case, the bootlegger mentioned to us that his decision to proceed was made after the management rejected his idea. He stated:

"We weren't going to stick to the management decision. Yes, only a director of x division supported and agreed with us, whereas the others were against our proposal. They argued that there would only be about 40% participation of external entrepreneurs that could be allowed to join the programme. And eventually, they did not agree with this programme's concept".

The D6 case also showed strong evidence about the emergence of the rejection of a proposed action. When we asked the regional director, he said:

"His proposal was not a management priority. The management's focus was only to implement the programmes that had already been approved."

The 'reworked initiatives' reflect managers' view that it was essential to continue with their ideas because they assumed that the programme would benefit many parties.

Table 2.3: Overview of bootlegging initiatives

Initiatives	Case	Overview of Bootlegging Initiatives
Unauthorized Initiatives	(D1) GV-H Overt	This bootlegging project was about a programme to collaborate with external parties (local schools) and was conducted outside of the unit area. This programme had been implemented without management approval. In fact, the idea was not presented to the management at first. The unit manager bypassed formal channels in order to provide technical education training for students at a high school. By doing this, the students were expected to have a chance to be employed right after they left the high school.
	(D2) NC-A Overt	This bootlegging project was about a programme planned by the unit manager to increase branches' capacity to produce workers with tailored skills for specific industries. The manager did not present the idea to the management at the first and hence no support was received from the management because the programme was conducted without management mandate or approval.
	(D3) F-D Overt	This case was about a technical training programme that was run by the unit manager during the preceding three years without management approval and support. The manager was afraid that the idea could be rejected by management for a variety of reasons, and she therefore decided to bypass the formal communication channels and imposed an informal procedure to enrol participants. They were registered under another legal training programme to allow them to receive training benefits.
	(D4) 3-D Covert	'Do it first and inform later'. In this case, in order to ensure that an advanced training programme could be conducted at his branch, the manager decided to apply for the license directly from the government without going through management approval. The reason was that he believed the proposal could be terminated by the management because the proposed programme was beyond that usually allowed by the management. The manager managed to use internal and external resources to support the application even though no additional budget was received from the management.
Reworked initiatives	(D5) SALES Overt	This project was about an event for entrepreneurs whose concept had been rejected by the management at first for several reasons. The unit manager, however, approved it because he believed that it could help the participants in promoting and selling their products. The event was designed to provide participants with a business platform to expand their business capacity and networking.
	(D6) C-NARY Overt	This programme was about the manager's idea to introduce a culinary programme at his branch; however, this was rejected by the management for unknown reasons. He collaborated with a local politician to go over the management's head to seek funding and approval from the government, and eventually they succeeded.
	(D7) F-4 Covert	This programme related to a manager placing current employees and trainees under an external management organization who were involved with a car-racing programme. The management had refused to collaborate with that organization for several reasons but the unit manager decided to proceed with his plan since he believed that the trainers and trainees would get more benefits from a pit – workshop programme, particularly through gaining knowledge about motor-racing and experience as the racing pit crew.

2.4.3. Bootlegging strategies: consensus building, resource acquiring and legitimacy seeking

In both unauthorized and reworked initiatives bootleggers executed three strategies during the implementation process: consensus building, resource acquiring and legitimacy seeking.

'Consensus building' – Several strategies were used by unit managers to build consensus with either internal or external stakeholders. Firstly, at the preparatory stage, the frontline employees were influenced through a series of roadshows to ensure that they clearly understood the bootlegging initiatives. The benefits of the initiatives were sometimes mentioned so they would become enthusiastic and excited about the programme. The D2 case unit manager informed us:

> *"I went to the branches to explain the programme. I raised their trust and told them that the budget would be directly allocated to them so that they could have freedom to purchase new tools and equipment I took the opportunity of going to every branch and presenting the advantages that we could get from this programme. Therefore, most of the branches under this programme were positive and agreed to support us".*

In some of the cases, for instance D5, consensus building was evident between the unit manager and the frontline employees, which was out of respect for their work relationships. Frontline employees decided to get on board because they had a sense of belonging and believed their unit manager needed their support. There was no compulsion involved: in fact, we were told by the unit manager that the employees had been allowed to withdraw themselves (from the team) if they felt that they were no longer interested in developing bootlegging initiatives.

Not all frontline employees agreed, however. Some of them found it difficult to go against the senior manager's decision, especially when they noticed that the unit manager's initiatives did not have management approval. In this situation, the bootlegger would

usually mention the superior's name to gain frontline employees' support. The bootlegger thus tried to build an informal internal consensus by citing superior's name at first. By doing this, unit manager made the frontline employees presume that unit manager already had a superior's blessing, thus make frontline employees become more confident in building a consensus. During the process, the bootlegger strengthened the agreement by showing their full commitment from the beginning, empowering the frontline employees, especially in the decision-making process. They also promoted team connectedness at the execution stage.

Secondly, the D5, D2 and D6 cases provided examples of how an external consensus was established. The consensus with external parties such as with other government agencies and local politicians was intended to reduce the potential for management to reject the ideas or the ways in which they were being developed. The roles of these external parties in local communities are usually well recognized and it was felt that would be useful when the bootlegging initiative was eventually presented to the management.

External consensus was therefore used by unit managers to convince senior management to accept bootlegging initiatives. In fact, we were told that external parties were able to persuade the senior management to change their initial decisions and eventually agree with the unit managers' bootlegging actions. For example, the unit manager of the D2 case mentioned to us that an external party, known as the Northern Corridor Implementation Agency (NCIA), defended his programme after his bootlegging initiative (National Dual Training System) was terminated by the management. A meeting was arranged between the NCIA and the management and this intervention was successful in keeping the initiative going since the management agreed to review the earlier decision.

'Resource acquiring' – The bootleggers were found to deploy either internal or external resources, or both, when faced with a constraint in resources. During the interview with the D3 case senior manager, he mentioned that the D3 case unit manager had used whatever internal resources there were to hand and diverted some resources that had already been allocated for official projects. She confessed to us:

> *"We used machines that had already been disposed of at other branches. I found that some of them were still ok and some we repaired and are still using now. I also pretended to register all the trainees under the other legal programme so that they could be seen as a legally registered student like others. Through this, we would be allocated with a budget and were able to pay the student allowance".*

In contrast, the D1, D2, D4, D5 and D6 cases show examples of external resource seeking, where the unit manager gained and combined resources through collaboration with external parties. The acquisition of resources was usually in the form of financial grants, materials, tools and equipment, and through consultancy. For example, a D1 case frontline employee revealed to us that government agencies had granted their resources for bootlegging initiatives, e.g. financial grants and equipment. We were told that the bootlegger was provided with workstation by the external party to run the bootleg project. In this case, school headmaster used to provide unit manager with a room at the school to conduct technical training program for school student.

A D5 case also showed a similar situation here where, its unit manager told us that external party; Implementation Coordination Unit[5] (ICU) agreed to fund the unit manager's project, however a formal understanding (MOA) had to be signed first before the resources could be allocated.

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[5] A government agency that supports the implementation of government policy at a regional level.

'Legitimacy seeking' – Our data shows several influence strategies that were used by unit managers in respect to ensure that their projects acquired legitimacy from internal or external stakeholders, or both. Firstly, the most common way of acquiring legitimacy was by presenting the success of the initiative to senior managers or demonstrating it by inviting several senior managers to witness the project themselves. The D3 case unit manager mentioned that the senior managers were less angry, more flexible and easier to convince once they had been provided with successful results; since they could then see the benefit to the organization. She told us:

> *"He [senior manager] was shocked at first. I briefed him properly from the beginning of why I did this. After he saw everything was in order, only then did he become confident. He saw the project had already met the training requirements, even though he argued about the size of the workspace. I said our budget was limited; in fact, we also used some budget from other centres. Then later he asked me to submit the proposal again".*

Secondly, the D2 and D3 cases revealed how the unit manager sometimes used their connections with superiors to lobby for the legitimacy of their projects. Unit managers usually established informal networking and good relationships with their superiors in the first place. For example, the D2 case bootlegger pointed out:

> *"I used my connection with superiors at headquarters so that I could go directly to the CEO. He mentioned the programme was good and he asked me to proceed with the programme. So, I felt like I got a full license".*

Thirdly, our data shows that bootleggers also used elements of pressure in seeking bootlegging legitimacy. From the interviews, we noticed that they frequently took advantage of good connections with external stakeholders, e.g. local politicians, other government agencies or NGOs, by influencing them to intervene in the senior manager's decision. For example, in the case of D6, we were told that the unit manager attained approval after he had influenced a local politician to deal with the firm's shareholders directly. Pressure was also exerted in a variety of ways in the D2 case, where the unit

manager used an official Memorandum of Agreement (MOA) that had already been signed by external parties as a tool for seeking legitimacy for his project. The agreement served as the bootlegger's 'bullet jacket' because a breach of contract would leave the organization with a bad reputation and they could be penalized. Thus, senior managers were left with no choice other than to be tolerant and accept the project.

2.4.4. Bootlegging outcomes and its impacts

The outcomes of bootlegging are explained in this study based on the extent to which the bootlegging initiatives were eventually successfully accepted and adopted within the organization. It is also a manifestation of senior management official acknowledgement and recognition. The success of bootlegging activities according to the above criteria, however, is independent from the effect on unit performance and individual career performance, which might be positive or negative.

One of the cases, D7, was not accepted by the management. The initiative in fact provoked management dissatisfaction and disagreement and was eventually ordered to shut down. On the other hand, the cases D1 to D6 were granted with official permission and new resources were allocated for their further development. This, in turn contributes to a unit's innovativeness.

An important area that emerged from the case studies, however, was the outcome of the bootlegging initiatives on the careers of the bootleggers themselves. The unit managers revealed both positive and negative implications, for example, promotion and rewards, on the one hand, and transfers and warnings as to future conduct on the other. The impact on bootleggers did not appear to be related to the success or otherwise of the initiatives, nor to whether they were unauthorized or reworked initiatives. Rather the extent to which

the initiatives were conducted overtly or covertly seemed to play an important role. Table 2.4 illustrates the types of bootlegging with the unit manager's outcome.

Table 2.4: Bootlegging Outcomes – Bootleggers' initiatives and approaches

		Bootleggers' Initiatives	
		Unauthorized Initiatives	*Reworked Initiatives*
Bootleggers' Approach	*Overt*	*(Q1)* • Transferred (D1) • Dropped from the team (D2) • Verbal warning (D3) • Being closely monitored (D3)	*(Q3)* • Further study with scholarship (D5) • Recognition with special assignment (D5, D6) • Excellence award (D6)
	Covert	*(Q2)* • Promotion (D4) • Recognition with special assignment (D4)	*(Q4)* • Verbal warning (D7) • Closely monitored (D7)

'Unauthorized initiatives – Overt Approach' **(Q1)** – Bootleggers that initiated 'unauthorized initiatives' under an overt approach run the risk of negative consequences. Through this approach, the senior manager's attention was drawn to the bootlegging activity, leading to feelings of shock and discomfort, and a sense that they needed to intervene in the bootlegger's initiatives in the middle of the process. Although the initiatives benefitted the unit and organization, senior managers ignored this, and some of them pretended as if nothing had happened. Consequently, we were told that the bootlegger had received a verbal warning and was being closely monitored. One of the bootleggers (unit manager) was dropped from the special task force team and was transferred from his current workplace. The D2 senior manager told us:

> *"The way he (bootlegger) did like forced people (senior manager) to agree with him. They (senior manager) found it hard to accept this (bootleg action) because it was likely to challenge them, especially the directors, they didn't want their image to be tarnished. Therefore, if someone wants their proposal to be approved and easily supported, they must go through them (senior manager)".*

'Unauthorized initiatives – Covert approach' **(Q2)** – In contrast, bootleggers who conducted their bootlegging initiatives under this quadrant were noticed to receive positive performance outcomes. The D4 bootlegger was promoted and transferred to headquarters. Compared to the overt approach, the covert approach allowed the unit manager to keep his bootlegging activities underground and only reveal the results after it was proven to be successful in benefitting the unit or organization. This success made the senior manager more tolerant and flexible rather than feeling angry, because the unit manager avoided the management's initial shock and feelings of dissatisfaction that would have arisen if their activities were conducted overtly. For example, the D4 case unit manager informed us that he quietly submitted the application for programme accreditation directly to the government authority without going through management approval. It was only presented to management once it had successfully received the accreditation certificate (fully compliant with the accreditation conditions, for example, expertise, tools and equipment, place and participants).

This approach was taken since the management's focus at that time was only on programmes that had already been approved. Management decided that no additional budget could be allocated in the middle of the yearly rolling plan and that therefore new proposals had to wait until the next rolling plan (if approved). The manager in the D4 case, however, wanted to produce the kind of highly-skilled employees in demand in the creative industries, particularly in the 3D Virtual Artist Animation programme. Thus, while there were demands from industry regarding their need for a skilled workforce, there was no guarantee that the ideas to tackle this would gain management approval, and hence the manager decided to go 'under the radar' to proceed with his ideas.

He told us:

"I did this because I wanted to give the students a better career pathway since there is high demand from industry. Compared to other specialized courses the trainees would get more recognition from the industry once they manage to finish this course,"

"Reworked initiatives – Overt approach" Q3 – Our data shows that, unlike for unauthorized initiatives, an overt approach to reworking initiatives received a positive response from management. We found that the unit manager's attempt to seek permission first could make the management less angry since it demonstrated a willingness to respect the importance of the senior management's role. In the D5 case, the management members were satisfied with the bootlegging activities after the programme had successfully been proven to enhance the organization's image, even though the idea was rejected by the management initially.

The unit manager's intention to combine internal and external alumni entrepreneurs under one programme was initially strongly opposed by the management members. The worry was that the external entrepreneurs would dominate the event, and this would affect the alumni's business promotion leading to a failure of the management's policy to develop entrepreneurs from their alumni. No support was given to the unit manager, and he had to take responsibility for everything if he wanted to proceed with his idea. Nonetheless, he was able to demonstrate that his approach led to more business linkages and networking that served to support alumni business sales and promotion. We were told that the manager was assigned a special task and positioned at the headquarters and was also granted a study scholarship. As the manager said:

"He [senior manager] personally called me to congratulate me, and I realized they [senior managers] now trust me more. What I see is that they are less strict and start to understand the way I worked. They took my programme concept and presented at the ministry level and fortunately they are willing to allocate more budget for us to run this programme for all states next year."

'Reworked initiatives – Covert approach' – From our records, only the D7 case was initiated under this category, and this was in fact the case that was ultimately abandoned. As the D7 manager told us, the programme was called off because management claimed that it could disrupt the current training system. Moreover, it was argued that the programme did not have any benefits for the organization. Eventually, the D7 unit manager received a verbal warning from his senior manager. We presume, however, that if it had been successfully implemented, the unit manager would have received positive outcomes from the senior manager.

The covert operation here meant that the unit manager kept his activities out of managerial sight and would only have presented it to the senior manager if it was proven to benefit the organization. This would have avoided the management's intervention in the middle of the initiative process that led the programme to fail. What actually happened, however, was that although management were initially unaware that the D7 programme was being continued covertly until it caught the attention of senior managers. These senior managers were afraid that direct collaboration between an external party and the unit manager without management involvement would harm the organization's reputation, relations and image if unsuccessfully implemented. Moreover, the external parties might have confused and misunderstood the organization's policies and objectives. Consequently, he was advised not to deal with any external parties before getting the management's consent and approval in the first place.

2.5. Conclusion

Based on the above findings, we have elaborated a conceptual model for bootlegging initiatives (Figure 2.4). The proposed model suggests a possible direction for an understanding of why and how bootlegging initiatives are deployed by unit managers and

accepted by the management. The study shows (1) the antecedents of bootlegging: senior manager and unit manager factors that may explain the emergence of bootlegging initiatives; (2) the types of bootlegging: 'unauthorized initiatives' and 'reworked initiatives' that could each be undertaken in either covert or overt ways, along with three engagement strategies that moderate bootlegging processes: namely consensus building, resource seeking and legitimacy seeking strategies; (3) the bootlegging outcomes and impacts on manager (bootlegger) career performance.
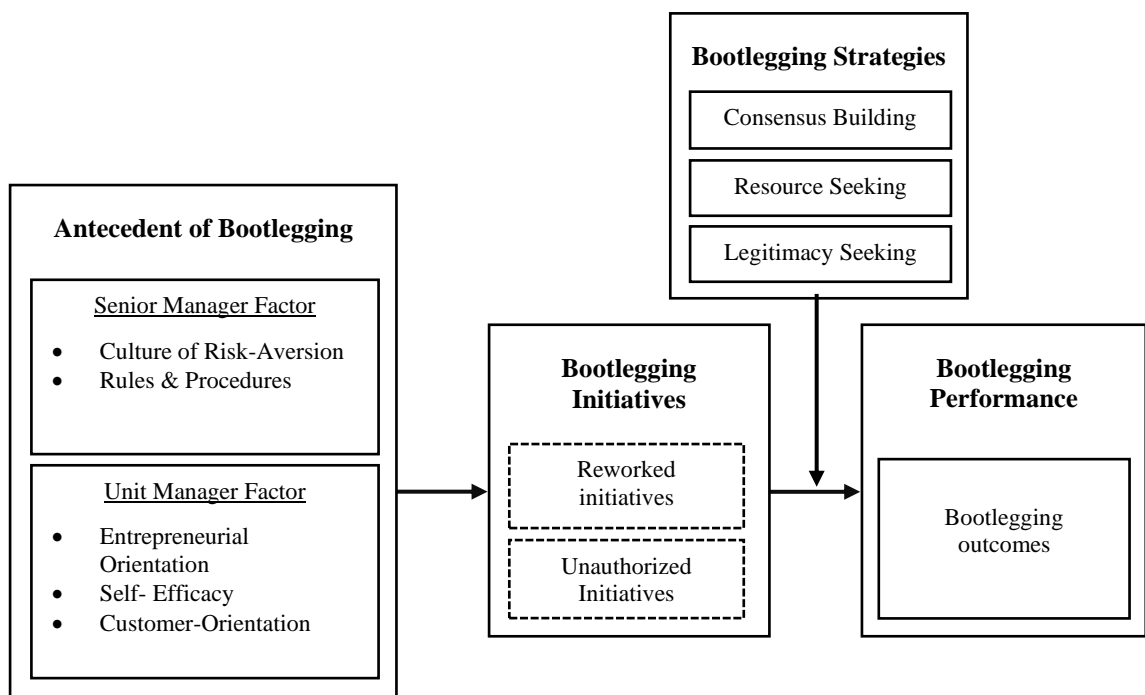
Figure 2.3: Conceptual framework for bootlegging initiatives

2.5.1. Theoretical implications

Our study has important implications for theory by emphasizing bootlegging initiatives, their contexts and the processes that were taken by bootleggers to generate better organizational outcomes and gain management acceptance.

Firstly, it extends our understanding of senior managers' behaviour and unit managers' factors as a group of antecedents. Besides answering the call for more research into the factors underpinning the emergence of bootlegging (Mainemelis, 2010; Globocnik and Salomo, 2015), this study places evidence of the manager's bootleg actions in a broader perspective. Our findings confirm work in the innovation, entrepreneurship and management literatures showing that organizational-based factors, such as rules & procedures and management control (Mainemelis, 2010; Augsdorfer, 2008; Augsdorfer, 2005), and individual factors, such as entrepreneurship behaviour and customer orientation (Hornsby, Kuratko and Zahra, 2002; Vadera, Pratt and Mishra, 2013; Storey and Larbig, 2018) are sources of bootlegging.

Our finding in respect to management's emphasis on rules and procedures contradicted that of Globocnik and Salomo's (2015) work, however. They suggested that higher formality would reduce deviant behaviour since sufficient resources for individual elaboration activities can be provided via formal structures. Our work, however, sees rules and procedures as provoking bootlegging activity in that unit managers feel that those procedures act as barriers to achieving changes that could benefit the organization. Our study also adds to the bootlegging literature by proposing two types of bootlegging initiatives, namely unauthorized initiatives and reworked initiatives. We also revealed how risk-aversion among the senior management team acts as an antecedent of bootlegging (Torugsa and Arundel, 2017).

The second main theoretical implication relates to Criscuolo et al.'s (2014) assertion that the performance of bootleggers is dependent on the firm's level of normative enforcement. It is more difficult for a bootlegger to act if formalization and adherence to the currently-practised norms in the organizations are high. By distinguishing types of bootlegging initiatives, namely 'unauthorized initiatives' and 'reworked initiatives', our

work shows that bootlegging initiatives can be carried out using either covert or overt approaches. We shed more light on how the bootlegging activities can take off, and how the chances of their successful adoption by the organization may be increased. We also contribute to bootlegging theory by showing the strategies that are used by bootleggers at the execution stage, namely: (1) consensus building (2) resource seeking (3) legitimacy seeking, and how these can help bootleggers gain official permission and resources that lead to further development.

Since bootlegging initiatives have no official approval or management mandate, and their implementation is outside of a formal management plan, consensus has not really been discussed in a bootlegging context, even though coalition and influencing strategies have been widely discussed in other fields (Yukl, Seifert and Chavez, 2008; Melton and Hartline, 2010; Santos-Vijande, López-Sánchez and Rudd, 2016).

The notion of consensus proposed in this study refers to the presence of an agreement between all the parties coming together with the bootlegger to develop their initiative. Consensus is important because if other team members differ in their perceptions of the goal they are trying to achieve it could damage the team's input-process-output model; weakening the relationship between team inputs (e.g., team members and supervisors), wasting effort in the team process (e.g., planning and strategy formulation), leading to other inefficiencies that diminish the likelihood that the bootlegging initiatives will be successful (Marks, Mathieu and Zaccaro, 2001; Ahearne *et al.*, 2010).

There were team members who totally disagreed with bootlegger's initiatives, finding them uncertain and unnecessary because they fell outside of management's business priorities, and worrying that the time and resources invested in developing the ideas could be wasted due to the lack of management support (Masoudnia and Szwejczewski, 2012).

Another concern for such team member was that involvement in bootlegging activities could be high risk since it could be perceived as unethical behaviour leading to negative consequences (Robinson and Bennett, 1995). Projects that by-pass management's communication channels could create disharmony in the organization and therefore, to avoid management dissatisfaction and the associated risk for their careers, frontline employees could decide not to engage with the bootlegging activities. These kind of attitudes present a potential challenge to the delivery of the bootlegger's ideas and thus bootleggers need to work hard to establish internal consensus.

The concept of bootlegging also challenges other concepts of bottom-up initiatives, such as organizational citizenship behaviour (OCB), which refers to positive organizational behaviour that is discretionary yet outside of the core role description (Podsakoff *et al.*, 2000, 2009; Lee and Allen, 2002). Consensus is easier to establish in the OCB context because OCB does not imply a departure from norms (Mertens *et al.*, 2016) and it follows the organization's formal innovation framework. In other words, these activities are still conducted within the organization's official strategies and are still in line with management decisions and yet, the management's permission for OCBs' initiatives are still be deployed.

This study highlights bootleggers' pre-emptive efforts to build an agreement with frontline employees at the preparatory stage by mentioning their superior's name as a way of gaining support. This makes the frontline employees presume that the bootleggers' ideas had the blessing of a superior. Previous scholars, such as Priem, Harrison, & Muir, (1995) stressed that group members' acceptance of decisions increases when a consensus is reached within the group, and that this leads group members to exert greater effort in implementing the decision. Concurrently, bootleggers seek to establish an informal relationship with their superiors so that they are better placed to gain their support once

their bootlegging initiatives are revealed. Another factor influencing the establishment of consensus is that where frontline employees had a sense of belonging and respect for their work relationships with unit managers they are more likely to get on board with the bootlegging initiative. In addition, bootleggers strengthened the consensus at the execution stage by promoting team connectedness, showing their full commitment, and empowering team members by allowing them to make the decisions. Regardless of what types of strategies are deployed by bootleggers consensus makes coordination easier, particularly during strategy implementation, thus leading to better performance (Homburg *et al.*, 1999; Dooley, 2000).

Finally, we contributed to the literature on bootlegging by specifically identifying bootleggers' careers as an outcome distinct from the outcome of the bootleg itself. Bootlegging scholars in previous research usually envisaged the outcomes only in terms of how bootlegging activities benefit new product development and product improvement (Augsdorfer, 2005; Masoudnia and Szwejczewski, 2012), with little consideration of the outcomes for the bootlegger's career prospects. The results in our study reveal two types of bootlegging initiatives—'unauthorized initiatives' and 'reworked initiatives'—each of which could be undertaken covertly or overtly. We showed both positive and negative impacts on the bootlegger's career.

2.5.2. Managerial implication

Our findings have several important implications for both managers and organizations. Firstly, senior managers can play an important role in balancing the bootlegging initiatives with the current management goals and environment; rewarding the successful ones and tolerating the failures. This would signal the organization's emphasis on innovation even if this requires deviant approaches (Criscuolo et al., 2014; Globocnik

and Salomo, 2015), ultimately enhancing individual innovative behaviour and the organization's ability to innovate in the future.

Secondly, this study provides the management and senior managers with a broader view in terms of the factors underpinning the emergence of bootlegging. This may encourage a more positive outlook in respect to bootlegging activities with more proactive actions such as repeatedly reviewing the idea to minimize the cost and risks of pursuing opportunities. Managers should delay decisions to allow bootleggers to elaborate on their ideas and give them the opportunity to produce more evidence about the potential value of their projects (Mainemelis, 2010). Furthermore, understanding the types and characteristics of bootleggers allows management to easily identify those individuals who are willing to risk personal sacrifice in bringing change to the organization and this would allow them to recognize such individuals with the right organizational positions and rewards.

Thirdly, we illustrate several strategies in the bootlegging process that can provide a framework for bootlegging initiatives in organizations. For example, bootleggers have shown how existing resources could be used to create a new initiative, and seeking such resources through bricolage could allow organizations facing resource constraints to still identify opportunities. Another implication of bootlegging practices can be seen in the ability of bootleggers to establish consensus with actors both outside and inside the organization, even without overt management support.

2.5.3. Limitations and future research

Our study has several limitations that lead to questions for future research. Firstly, because our research focuses on the managerial unit, we did not find bootlegging activities that emerged from frontline employees. It would be more interesting if the study

could be conducted at this level because motivation at employee level is crucial for an organization to achieve a competitive advantage through frontline innovation, speed and cost competitiveness. Moreover, frontline employees have always been recognized as crucial factors to the survival of the firm. They have to serve customers' needs and requests and this presents them with scenarios that require them to go beyond their formal tasks (Beatty *et al.*, 2016). Unit managers sometimes are given space or freedom to point out their ideas, and they are also allocated with resources that enable them to engage with bootleg actions easily. Future research could therefore explore bootlegging activities further, focusing on initiatives that come from lower-level staff.

Secondly, our results are produced from a single organization and therefore we could not look at other organizational factors that may act as antecedents or moderating factors. It is suggested therefore that future research examines bootlegging initiatives across multiple organizations. Moreover, it is important to identify the initiatives that occur under bootlegging actions irrespective of industries.

Thirdly, our results indicate that 'unauthorized initiatives' and 'reworked initiatives', initiated both covertly and overtly had mixed outcomes for managers' careers. Although we found that 'unauthorized initiatives' under the covert approach resulted in positive outcomes, however, we could not find any covert operation under 'reworked initiatives' in our study. This could be an area for future research in generalizing our results.

Finally, our study mainly focused on bootlegging antecedents and on senior managerial and unit managers and the bootleggers' engagement strategies during the bootlegging process. Although there have been studies about organizational factors that impede bootlegging behaviours, such as formality and sanctions, future research should focus on investigations that could be conducted on the barriers to bootlegging factors, particularly

on the individual level, in respect to employees' indebtedness to their leaders, or abusive supervision (Vadera, Pratt and Mishra, 2013).

CHAPTER THREE - THE ROLE OF CONSTRUCTIVE DEVIANCE IN STIMULATING BOOTLEGGING INITIATIVES AT THE UNIT LEVEL

3.1. Introduction

Can employees' constructive deviance be empowered by leaders? Is it true that constructive deviance behaviour can be inherited from the superior's behaviour, and thus motivate other team members to engage in bootlegging initiatives? Traditionally, deviance in the workplace has been seen as a threat to the functioning of an organization (Robinson and Bennett, 1995; Bennett and Robinson, 2000), but it can be "constructive" when the violation of organizational norms serves to improve the well-being of an organization, its members or both (Galperin, 2012; Vadera, Pratt and Mishra, 2013).

Today's business landscape requires employees to work aggressively to maintain customers' loyalty and sustain their business' service quality. Constructive deviance can be seen as an approach to finding innovative ways to solve such challenges (Galperin, 2012). For example, bank employees may waive bank fees that they believe unfairly penalize customers. Similarly, retail employees may grant extensions to customers requesting product returns that are a few days beyond the 15-day return policy if customers do so under special circumstances (Ambrose, Taylor and Hess, 2015).

According to Pascale and Sternin, (2005), however, this kind of behaviour can provide a powerful basis for organizational learning and change. An angry customer will be appeased if employees are able to counter their dissatisfaction by serving free dessert, even though giving away free food actually deviates from formal organizational rules (Dahling *et al.*, 2012). Maintaining customer loyalty in this way shows why this behaviour should be widely accepted and utilized by employees in the organization. Similarly, other kinds of deviance behaviour like whistleblowing (Spreitzer and

Sonenshein, 2004), exercising one's voice (Zhou and George, 2001), and extra-role behaviour (Van Dyne, Cummings and McLean Parks, 1995) are increasingly being regarded as beneficial to organizations and their members (Vadera, Pratt and Mishra, 2013).

We do not know, however, to what extent constructive deviance behaviour could be successfully empowered by employees in the organization. Scholars have frequently explored the determinants and effects of constructive deviance (Vadera, Pratt and Mishra, 2013) and much study has focused on the individual factors that contribute to constructive deviance (Dahling *et al.*, 2012; Galperin, 2012) but there have been few examinations of the ways in which the leaders of the organization may encourage this behaviour among employees. Further, it is important to explore managerial stimulation of employees' deviance behaviour because the company is best placed to control its extent through leadership roles and policies that guide and/or control employee deviant behaviour.

Our main research objectives are to know: (1) whether leaders who themselves exhibit constructive deviance influence their followers to act similarly; (2) whether constructive deviance motivates unit members to engage in bootlegging initiatives, and (3) whether leaders' and followers' constructive deviance reinforces unit managers' own engagement in bootlegging activities. Although, these arguments have not yet been tested empirically, there is an argument that constructive deviance can be stimulated by leaders via traditional top-down leadership styles (Pascale and Sternin, 2005). Moreover, other leadership styles, for example transformational leadership (Vadera, Pratt and Mishra, 2013) and psychological empowerment (Spreitzer, 1995), could be employed by managers actively to stimulate constructive deviance behaviour.

In addressing the above issues in this chapter, we also answer the call for further research on the issues arising between different levels of the organizational hierarchy (Martin, 2011; Helfat and Martin, 2015) since data were gathered from senior managers, unit managers and employees. The work presented here is based on a survey study that was conducted at a large organization offering technical education and vocational training in Malaysia. We first provide a brief overview of previous research on deviance in the workplace, focusing on constructive deviance behaviour and bootlegging initiatives. Then, four testable hypotheses were developed based on the qualitative case study from chapter two. Next, we describe the design, execution and analysis of our study. Finally, we discuss the main implications of this work.

3.1.1. *Deviance in the workplace: constructive deviance for beneficial outcomes*

Workplace deviance (Bennett and Robinson, 2000) describes voluntary behaviour that deviates from organizational norms.[6] There are two strands of research on workplace deviance (Warren, 2003). First, destructive deviance, which conceptualizes workplace deviance as undesirable and destructive behaviour that leads to negative and dysfunctional outcomes. This strand in the literature sees such behaviours as potentially causing harm to the organization and its members (Bennett and Robinson, 2003). An alternative strand in the literature, however, sees deviance as potentially having positive effects for the organization, coining the term constructive deviance behaviour.

Galperin (2002) defined constructive deviance as voluntary behaviour that, while it violates significant organizational norms, eventually contributes to the wellbeing of the

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[6] Organisational norms are informal or formal rules that regulate and regularize behaviour (Bennett and Robinson, 2000; Feldman, 1984). They can be formally described in policies, rules, roles or procedures, but often are not explicitly documented or openly discussed (Feldman, 1984).

organization, its members, or both. Warren (2003) defined constructive deviance as "behaviour that deviates from the reference group norms but conforms to hyper norms" (p. 628). In this study, however, we adopt Vadera et al.'s (2013) modification of Warren's definition to refer to constructive deviance as behaviour that (a) benefits the reference group, (b) deviates from reference group norms, and (c) conforms to broader hyper[7] norms.

We build on theories of behaviour contagion and social identity to show that a leader's constructive deviance has a cascading effect on followers. The term "leader-followers" in this model refers to the transfer of constructive deviance at two levels: first between senior managers and unit managers; and second between unit managers and frontline employees. Together, the constructive deviance of the senior manager, unit manager and employees form an interconnected set of antecedents of bootlegging activity in the branch. We believe that constructive deviance can result in long-term organizational change and, in this sense, we explore the role of constructive deviance in three types of individuals in sparking bootlegging initiatives—the unit manager, those above (senior managers) and those below (frontline employees).

3.1.2. *Bootlegging initiatives as a source of innovation in an organization*

Bootlegging initiatives in definition indicates as the process by which actors in organization actively initiated innovation ideas that aim to benefit the organization through unconventional way. That is outside of the organizations' formal innovation

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[7] Hyper norms are globally held beliefs and values that encompass basic principles (e.g., nourishment, freedom, physical security (Donaldson and Dunfee , 1994). Hyper norms are based on the concept of a social contract and attempt to capture people's values or beliefs worldwide or a global standard for evaluating behaviour that extends beyond organizational and country- specific boundaries (Warren, 2003)

framework or organizational norms without senior management's formal authorization or support (Augsdorfer, 2005). According to Knight, (1967) bootlegging initiatives also can be as an informal way of developing ideas in the face of management barriers. In fact, today's employees have to be more creative in actively generating novel products/services to ensure that their organizations remain competitive (Storey *et al*., 2016; Storey & Kahn, 2010).

Bootleggers aim to avoid management's premature rejection of the idea and want to protect their ideas from the "disapproving power of management members" and keeping them under the radar until they are of proven benefit to the organization (Augsdorfer, 2008). Although, this approach has been considered as a type of deviance behaviour but bootlegging initiatives indicate on the idea's development process via predevelopment activities (Augsdorfer, 2005; Masoudnia and Szwejczewski, 2012). If proven benefits, it can be established as organization's new norm, but on the other hand, constructive deviance is referred to behaviour that extremely violates and against significant organizational norms, but contribute to the well-being of an organization (Galperin, 2012, 2012b).

Senior managements' efforts in cultivating and encouraging creativity are often inconsistent since creative and novel ideas often sit in tension with established policies and procedures. The more novel an idea, the more uncertainty can exist about whether the idea is practical, useful and implementable (Mueller, Melwani and Goncalo, 2012), and thus the potential for rejection is higher. Such rejections by senior management frustrate employees who have devoted time and cognitive effort to developing ideas, and this increases the likelihood of them keeping initiatives hidden from management (Mainemelis, 2010).

Bootlegging initiatives will be revealed to management when proven benefits to the organization but the development of bootlegged ideas can be stopped if they do not deliver the expected results, without the need to justify them to anyone. To date, BMW's 12-cylinder engine, Audi's Quattro wheel-drive and Nichia's LED bright light technology are examples of innovations that were successfully developed via bootlegging (Masoudnia and Szwejczewski, 2012) .

Previous research has suggested that management's tight control (Augsdorfer, 1996); organizational politics and bureaucracy (Sethi, Iqbal and Sethi, 2012), insufficient resources for idea elaboration (Masoudnia and Szwejczewski, 2012; Kannan-Narasimhan, 2014) and organizational resistance to change (Lenka *et al.*, 2018) potentially can be bootlegging antecedents. Most of the existing research into bootlegging activities (Augsdorfer, 2005, 2008; Criscuolo *et al.*, 2014; Globocnik and Salomo, 2015) has focused on the organizational level factors, like the organization's resources, strategies, autonomy, processes and structures, etc.

Recently, scholars have begun to investigate bootlegging's antecedents from the individual perspective. It has been suggested, variously, that creative leaders (Mainemelis, Kark and Epitropaki, 2015), transformational leadership (Zhang *et al.*, 2015) and individuals' self-efficacy (Globocnik & Salomo, 2015) are triggers for bootlegging activities. As Mainemelis, (2010) suggested, however, future studies should account for the reaction of team members under dyadic interaction between managers (team leaders) and their team members.

Building on the work that has linked creative employees and employees' entrepreneurship behaviour (Dess, Lumpkin and McGee, 1999; Globocnik & Salomo, 2015; Ireland, Covin

and Hornsby, 2005) this paper suggests that employees' constructive deviance is an important antecedent for an organizations' level of bootlegging initiatives.

3.2. Significance of the Study

This study aims to make three principal contributions to theory. First, we extend our understanding of unit managers' constructive deviance orientation affects unit members' willingness to engage with bootlegging initiatives. To the best of our knowledge, the current research is the first to examine whether constructive deviance is a potential antecedent of bootlegging initiatives.

The literature has only considered employee-based antecedents in the sense of their willingness to escape managerial control and be more cost effective by making use of unused resources (Augsdorfer, 1996), trial and error learning processes (Augsdorfer, 2005), and delaying the monitoring and assessment of early-stage ideas until they are better developed (Mainemelis, 2010).

Second, we explain the degree to which unit managers' constructive deviance might have motivated unit members to engage with bootlegging initiatives when there is high (low) leader and follower constructive deviance. We hypothesized that senior managers' and employees' constructive deviance would enhance the likelihood of unit managers influencing unit members to engage with bootlegging initiatives. Existing studies have extensively investigated the role of leaders in enhancing employees' creativity, such as by providing employees with a favourable environment for creativity, supporting them with resources, and establishing cooperative interpersonal relationships that build trust and loyalty (Amabile *et al.*, 2004; Koh, Lee and Joshi, 2019). It remains unclear, however, whether senior manager constructive deviance also encourages individual creativity, and thus bootlegging among unit members.

Third, we examine the potential influence of leaders' constructive deviance behaviour on followers' constructive deviance behaviour through the lens of social contagion theory that theorizes that a leader's behaviour will be emulated by their team (or individuals) shaping the team's orientation to reflect the essence of the leader's modelled values in action (Owens and Hekman, 2016).

Generally, the study of transformational leadership in previous research has suggested that the leader's role model might affect employees' creativity (Byrne *et al.*, 2009). For example, leaders with creative problem-solving skills (Basadur, 2004; Hemlin and Olsson, 2011; Koseoglu, Liu and Shalley, 2017) can set specific creativity expectations and goals for their employees, and this can facilitate employees' creativity (Mainemelis, Kark and Epitropaki, 2015; Huang, Krasikova and Liu, 2016). When a leader's behaviour appears to go against management instructions, or organizational formal norms and routines, however, employees find it harder to reciprocate that leader's behaviour. There is then a tension between a perceived risk of inducing management dissatisfaction by following a unit leader's constructive deviance behaviours and a sense of obligation to reciprocate that leader's positivity about ideas that may be beneficial for the team, organization and its members. The current research, therefore, provides insights into how constructive deviance may be cascaded down in the leaders – members dyadic, ultimately encouraging unit members to engage with bootlegging initiatives.

3.3. Conceptual Framework and Hypothesis Development
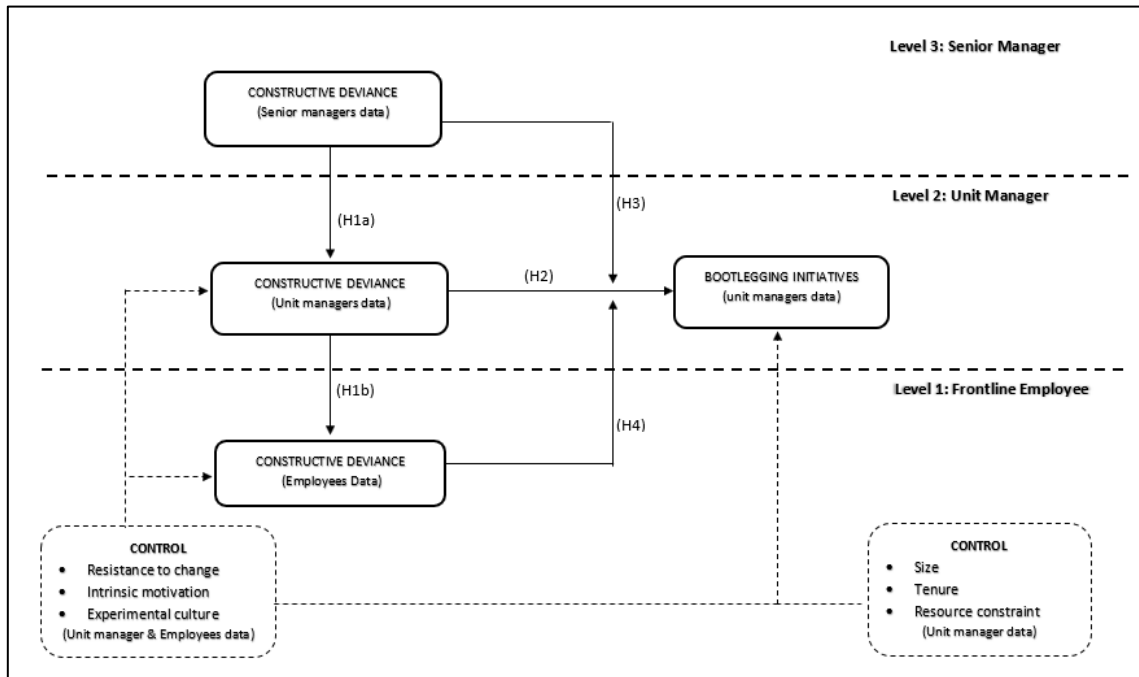
Figure 3.1: Conceptual Framework

The conceptual model of this research is shown in Figure 3.1. The model reflects the assertion that novel ideas for new product/services/process development or increment could be developed via underground activities at unit level; that is without management's formal support and authorization but with the aim to benefit the organization (Augsdorfer, 2005). We suggest a multilevel model to manifest the cascading effect of the leader's constructive deviance on the followers' behaviour to ultimately spark a unit's bootlegging initiatives. The term "leader-followers" refers to the relationship between either senior managers and unit managers or the unit managers and frontline employees. As shown in Figure 3.1, we see constructive deviance as being transferred from senior managers at Level 3 to unit managers at Level 2 and then as continuing to cascade down from Level 2 unit managers to Level 1 frontline employees.

3.3.1. *The impact of the leader's constructive deviance on followers' constructive deviance*

The core of our research framework is about the contagion of constructive deviance between leaders and followers, which proposes a vertical cascade of (a) senior manager toward unit manager and (b) unit manager toward frontline employees. The more a leader engages with constructive deviance, the more likely it is that the constructive deviance is also assumed by the follower. Building on social contagion theory, we argue that leaders' orientation can be seen as an effective means to influence followers' orientation (Wieseke *et al.*, 2009; Owens and Hekman 2016).

According to social learning theory (Bandura, 1969), individuals may acquire new behaviours by observing and imitating others, and recently social learning theory has proven to be useful in understanding the context of leader-follower relationships such as sales leader–salesperson relationships. According to Alavi *et al.* (2018), salespersons imitated managers' technology acceptance behaviour and work motivation, and followers have also been shown to adopt leaders' organizational identification (Wieseke *et al.*, 2009; Homburg, Wieseke and Kuehnl, 2010; Wieseke *et al.*, 2011).

Such contagion occurs because, according to social identity theory, a leader who has strong identification in organization inspires and strengthens followers' motivation to work hard, identify with that leader's values and act in the same ways as their leader (Ashforth and Mael, 1989). "Individual – organization identification" evokes identity-congruent behaviour on other organization's member (Ashforth and Mael, 1989; Dutton, Dukerich and Harquail, 1994). We therefore expect the transfer of constructive deviance behaviour from leader to follower as predicted by this theory: leaders influence followers' creative behaviour by themselves demonstrating a creative work style, creative solutions

and a creative role model, thus encouraging followers to internalize those values and beliefs.

Followers who feel greater leader identification are more willing to expend their effort to help those leaders and to engage with extra-role activities, including counter role behaviours outside their explicit job descriptions (Vadera, Pratt and Mishra, 2013; Dahling and Gutworth, 2017). They are likely to act on the leader's behalf as they believe the leader's ideas are important to pursue in order to achieve the organization's goals.

Emotional contagion is defined as "the tendency to automatically mimic and synchronize expressions, vocalizations, postures and movements with those of another person's and consequently to converge emotionally" (Hatfield, Cacioppo and Rapson, 1993). Less powerful individuals are more attentive and are more likely to mimic the emotions of high-power individuals (Anderson, Keltner and John, 2003).

It is also worth investigating the potential connections between LMX (Liden and Graen, 1980), constructive deviance behaviour, and trust in the organization's performance management system. According to Tziner *et al.*, (2010) employees who enjoy a high level of relationship with the leader will "pay back" their managers by engaging in discretionary behaviour, even when that behaviour defies the organization's rules and norms.

The perceptions of the fairness of the performance appraisal process and the accuracy of performance ratings can also be antecedent for employees' constructive deviance behaviour. If the procedures employed to appraise performance are perceived as unfair, negative feelings may emerge. Employees would feel angry, frustrated and hostile, leading to low-quality leader-follower relationships and a consequent refusal to follow leaders in constructive deviance behaviour.

Conversely, if the employees believe that they have been fairly treated in their performance appraisal procedure they are more likely to develop a positive intimate rapport, and high-quality exchanges based on trust and confidence. Such employees would be more likely to follow their leader to break the organization's rules if they felt that this would promote the organization's effectiveness. Based on the above discussions, we predict that leaders that have frequently exhibited constructive deviance would influence the followers to act in a similar way.

Hypothesis 1: *The greater the leader's constructive deviance, the greater the follower's constructive deviance (a) Senior managers' constructive deviance leads to managers' constructive deviance (b) Managers' constructive deviance leads to employees' constructive deviance*.

3.3.2. Unit managers' constructive deviance and bootlegging initiatives

It is recognized that there is a need to study how constructive deviance behaviour could change an organization's status quo and serve organizational wellbeing or performance (Vadera, Pratt and Mishra, 2013). Constructive deviance aims to: (a) increase the wellbeing of the organization, (b) break organizational norms and rules, and (c) conform to hyper norms (Vadera, Pratt and Mishra, 2013). The existing literature has identified antecedents of constructive deviance (Dahling, Chau, Mayer, and Gregory, 2012; Galperin, 2012; Morrison, 2006) and it has been found to foster and promote organizational change, such as increased efficiency (Fuller, Marler and Hester, 2006; Dahling *et al.*, 2012), but there has been a lack of research on the role of constructive deviance in driving innovation (Mertens *et al.*, 2016; Vadera, Pratt and Mishra, 2013). Recent research has viewed constructive deviance as a trait (Déprez et al., 2019; Petrou et al., 2020) and this suggest that individuals will have a predisposition for constructive deviance (or not). We believe that a constructive deviance orientation could foster a unit's

bootlegging initiatives in several ways and that this paper is the first to argue that constructive deviance is an antecedent of bootlegging.

First, we hypothesize that the members at business unit level are likely to engage with bootlegging activities if constructive deviance behaviour is regularly practised by their unit manager. Constructive deviance has the potential to yield a variety of positive outcomes because employees act as pioneers of change, accelerating the innovation process and increasing competitiveness (Howell, Shea and Higgins, 2005). Galperin, (2012) argued that engagement in constructive deviance behaviours that break away from the current structure leads to successful innovations. Bootlegging initiatives occur without formal organizational support and authorization, often hidden from the sight of senior management but are undertaken with the aim of producing innovations that will benefit the company (Augsdorfer, 2005; Criscuolo *et al.*, 2014). Constructive deviance encourages individuals to engage in unconventional creative behaviour and thus helps to improve a unit's management practices as well as generating new ideas for service development.

Although constructive deviance behaviour can have substantial benefits for an organization, senior management dissatisfaction with individuals who break rules lead to others resisting this behaviour. Ultimately, this impedes employees' creativity and the development of innovative services (Mainemelis, 2010; Dahling and Gutworth, 2017) since it is harder to reach "uncharted" areas through official programmes. In contrast, if employees work in environments where the norms of behaviour are not too rigidly enforced, exploration of alternative ways of doing things can be less constrained. Overall, therefore, to avoid unintended consequences, employees prefer to go out of management's sight and be invisible by engaging with bootlegging initiatives to develop the ideas.

In the context of entrepreneurship behaviour, employees who have specific strategic autonomy will carry out innovative activities without supervisory approval (Globocnik and Salomo, 2015). In fact, leaders who provide followers with high levels of autonomy and work discretion stimulate creative and innovative performance (Volmer, Spurk and Niessen, 2012) and this can be exhibited in underground activities. Therefore, we posit:

Hypothesis 2: *The greater the individual's (unit manager) constructive deviance, the more extensive the unit's bootlegging initiatives*

3.3.3. *The moderating role of leaders' constructive deviance on unit managers' bootlegging initiatives*

Leadership has been one of the most important, and researched, factors in the enhancement of employee creativity in recent decades (Antonakis *et al.*, 2019; Mumford and Hunter, 2005; Mainemelis, Kark and Epitropaki, 2015). We suggest that the impact of unit managers' constructive deviance on their units' bootlegging initiatives is greater when leaders (senior managers) also show high constructive deviance behaviour. Leaders who demonstrate constructive deviance behaviour will encourage employees, in this case the unit managers, to become more creative and innovative, hence increasing the level of service innovation in the branch. The leaders' constructive deviance will embolden unit managers by suggesting tacit approval to engage with bootlegging initiatives. Since leaders' constructive deviance aims to benefit the organization, and this is in-line with units' bootlegging initiatives, those leaders many be more flexible and willing to accept such bootlegging initiatives, thus in turn enabling some of the bureaucratic processes at the front-end of the innovation process to be avoided (Hlavacek and Thompson, 1973; Augsdorfer, 2008).

Resources in the organization are unevenly allocated (Barney, 1991) and R&D staff usually experience a lack of resources at the early stages of new product / service

development (Gibbert, Hoegl and Valikangas, 2014). Leaders' constructive deviance signals that it is okay to depart from previously-established methods, procedures and solutions (Scopelliti *et al.*, 2014; Stokes, 2014). When a leader exhibits constructive deviance, therefore, they signal that they tolerate bootlegging activities and this in turn encourages unit members to seek alternatives resources to invest in developing a new service innovation (West and Bogers, 2014). In sum, leaders who exhibit constructive deviance show higher tolerance and more flexibility towards people who commit bootlegging. Therefore, we posit:

Hypothesis 3: *Senior managers' constructive deviance strengthens the relationship between unit managers' constructive deviance and the unit's bootlegging initiatives*

3.3.4. The moderating role of employees' constructive deviance on unit managers' bootlegging initiatives

Employees' constructive deviance has the potential to yield a variety of positive organizational outcomes since employees are pioneers of change that accelerates the innovation process and increases competitiveness (Howell, Shea and Higgins, 2005). This research investigates employees' constructive deviance as a key factor behind a unit's bootlegging activity. The contention is that employees with constructive deviance would increase the impact of the unit manager's constructive deviance on the unit's bootlegging initiatives.

Normally, employees have less trust in leaders who behave unethically, for example cheating, stealing from the organization, or violating organizational rules. Employees would withdraw their support from such leaders and may even leave the organization (Ng and Feldman, 2015). Therefore, employees who themselves follow the rules, at best may not support bootlegging activities in the unit, and at worst may even report such activity

to senior management, thus curtailing bootlegging. On the other hand, the propensity for moral disengagement suggests that employees can continue to support and trust in their leaders even when they know that that leader acts unethically (Fehr, Fulmer and Keng-Highberger, 2020). This can be achieved via three mechanisms.

First, employees with a strong constructive deviance orientation would reframe a leader's behaviour as less of a wrongdoing, highlighting instead its positive impact on the organization. Second, such employees deny any harm to senior management or other organizational members. For instance, an employee who witnesses their unit manager bypassing formal channels (by, for example, establishing a coalition with external parties) might not disengage because they may argue that the management was not actually harmed. Lastly, employees focus on their own roles in the behaviour, for example by constructing unethical actions as acceptable by diffusing responsibility across an entire unit (Moore *et al.*, 2012). Employees with a high propensity to deviate from organizational practices are thus more likely to work with the unit manager to realize bootlegging initiatives.

In addition, we also argue that employees may maintain their perception of leaders engaged in constructive deviance via the role of value congruence. The organizational sacralization theory suggests that employees with high value congruence would generate excuses, and view deviant behaviour more positively (Harrison, Ashforth and Corley, 2009) in order to protect their feelings of connection to the transcendent. Employees start to accept leaders who have committed a breach—the so-called "blind eye effect". Overall, therefore, employees' constructive deviance is assumed to work in tandem with unit managers' constructive deviance to foster a unit's overall bootlegging initiatives. We therefore posit:

Hypothesis 4: *Employees' constructive deviance strengthens the relationship between managers' constructive deviance and the unit's bootlegging initiatives*

3.4. Method

3.4.1. Measures

To secure a more precise understanding of the research context and boundary, we conducted a face-to-face survey at the senior manager and unit manager level. Expert feedback was used to validate the content that had been retrieved from in-depth interviews with individuals at three different organizational hierarchies. This process (the expert's review) helped us to develop and revise the questionnaire, develop new scales, and items designation, and shape the conceptual model.

We crafted survey questions by adapting items from previous works and developed some new indicators based on the data from our previous qualitative case study. These items were reworded using common business terminology in order to minimize cross-cultural issues (Storey and Larbig, 2018). The questionnaires were later reviewed by experts from the innovation and management area and pretested with each level of key informants to identify items that might be confusing for them.

Although, there is a potential for a rater effect; data on different variables were collected from similar informants (Podsakoff *et al.*, 2003) (i.e. employees at the unit level) that answered both survey questions, such as constructive deviance and bootlegging initiatives but data from multilevel informant were obtained. In fact, we used to conduct case study investigation and had been cross validated with archival data. Further, we illustrated appealing cover stories to secure a more precise understanding of the research context and boundary.

Several actions were taken to improve scale items such as (a) defining ambiguous or unfamiliar terms; (b) avoiding vague concepts and providing examples when such concepts had to be used; (c) keeping questions simple, specific and concise; (d) dropping double-barrelled questions; (e) decomposing questions related to more than one possibility into simpler, more focused questions; and (f) avoiding complicated syntax (Podsakoff *et al.*, 2003).

Most constructs used a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7). The constructive deviance scales for senior managers, managers and employees were assessed on a five-point scale from "not at all" (0) to "if not always" (4). An English version was developed first, and we then used a back-translation method conducted by a professional translator to ensure conceptual equivalence and accuracy.

3.4.2. Independent variables

Constructive deviance refers to problem solving behaviour that (a) benefits the reference group, (b) deviates from reference group norms, and (c) conforms to broader hyper norms, based on Warren's definition as modified by Vadera et al. (2013). We operationalized constructive deviance at three different levels in the organization, namely senior manager, manager, and employee. Four items were adapted from Dahling and Gutworth (2017) to allow these different levels in the hierarchy to respond to how often they (1) departed from organizational procedures to solve a problem; (2) bent or broke a rule to be more effective; (3) departed from dysfunctional organizational policies or procedures to solve a problem; (4) took shortcuts to perform the job more efficiently.

3.4.3. Dependent variable

Bootlegging Initiatives – we measure bootlegging initiatives at the unit level. This is the extent to which the unit takes the self-initiate and develops without senior management's

formal authorization or support (Augsdorfer, 2005) The study adapted three items from Globocnik and Salomo (2015) to capture the extent to which innovation initiatives: (1) were regularly engaged with before a formal official organizational approval or mandate; (2) often bypassed official channel to pursue new initiatives or ideas; and (3) unit provided their own resources to pursue the development of ideas.

3.4.4. Control variables

Controls. A number of controls were measured. These variables might influence individuals' constructive deviance, and/or may impact the degree of bootlegging activity in the business unit, and therefore should be controlled for.

A **Resources Strain** measurement was developed based on literature suggesting that the resources organizations make available for the elaboration of new ideas are often insufficient to support the elaboration of all proposed new ideas in the work context. Resources are defined as firm-specific physical, human and organizational assets (Wernerfelt, 1984). We adapted the scales established by Storey and Larbig (2018) to capture the extent to which managers in the unit admitted that (1) the firm does not have any uncommitted resources that can be allocated to managers' project if needed; (2) the firm had problems obtaining resources at short notice to support managers' projects. We also developed new item scales to clarify whether the existing resources were adequate to develop the suggested ideas further; and whether the ideas failed to be developed due to limited resources and time.

Resistance to change refers to individuals' negative attitude towards change. It explains why management or individual efforts to introduce change in an organization, particularly new processes (production methods), management practices or technology, fail. We control for resistance to change since this might influence individuals' ability to take the

risk to violate management orders to stop working on their current ideas. Four (4) items from Oreg (2006) were used to capture the extent to which individuals: (1) looked for ways to prevent or delay implementation of change; (2) presented his/her objections or concerns to senior management; (3) protested against the need to develop the new initiative; (4) complained about the unsatisfied issues to his/her colleagues.

Intrinsic Motivation reflects that some individuals are motivated to engage in constructive deviance on the basis that they are instinctive risk takers, explorers of new cognitive pathways, and playful with ideas and materials (Oldham and Cummings, 1996). Three items measured the extent to which the individual: (1) has confidence in their ability to solve problems creatively; (2) feel that they are good at generating novel ideas (Gong, Huang and Farh, 2009), or elaborating or improving upon others' ideas (Tierney and Farmer, 2002).

Experimental Culture refers to a culture that provides room for experimentation and is tolerant of competent mistakes (Vera *et al.*, 2005). We relied on the scale from Vera *et al.* (2005) and asked participants to indicate on a seven-point Likert scale (from strongly disagree to strongly agree) whether they agreed that in their unit: (1) errors are considered a source of learning, (2) there is room for new initiatives, (3) there is freedom for experimentation and exploration, (4) they are encouraged to take the risks when trying new ideas.

Unit size. The size of unit was measured based on the number of employees in the business unit. The size of a business unity may reduce its ability to be innovative due to management inertia and structural rigidity.

Table 3.1: Items for Measuring Constructs in the Model

- **Bootlegging Initiatives (CR = .87, α = .78, AVE = .69)**

In the last three years, whilst developing new innovation initiatives…

We regularly engaged with new initiatives before formal official organizational approval or mandate	.83
We often bypassed official channel to pursue new initiatives or ideas	.86
We provided my own resources for activities to pursue ideas	.80

- **Constructive deviance (Senior Manager) (CR = .86, α = .87, AVE = .62)**

How often did you…

Departed from organizational procedures to solve a problem [a]	.64
Bent or broke a rule to be more effective [a]	.70
Departed from dysfunctional organizational policies or procedures to solve a problem [a]	.83
Took shortcuts to perform your job more efficiently [a]	.95

- **Constructive deviance (Manager) (CR = .94, α = .91, AVE = .79)**

How often did you…

Departed from organizational procedures to solve a problem [a]	.90
Bent or broke a rule to be more effective [a]	.92
Departed from dysfunctional organizational policies or procedures to solve a problem [a]	.91
Took shortcuts to perform your job more efficiently [a]	.82

- **Constructive deviance (Employee) (CR = .92, α = .88, AVE = .75)**

How often did you…

Departed from organizational procedures to solve a problem [a]	.83
Bent or broke a rule to be more effective [a]	.92
Departed from dysfunctional organizational policies or procedures to solve a problem [a]	.92
Took shortcuts to perform your job more efficiently [a]	.79

- **Unit's Resource Strain (CR = .87, α = .83, AVE = .63)**

We do not have any uncommitted resources that can be allocated to my innovation initiatives if needed.	.84
We have problems obtaining resources at short notice to support innovation initiatives.	.60
We don't have enough resources to implement all the ideas that have been suggested.	.84
Many good ideas are not taken forward due to lack of resources or time.	.88
We have few resources available to fund our development initiatives [b]	-
We come up with too many good ideas for new initiatives [b]	-

- **Resistance to Change (Manager) (CR = .83, α = .72, AVE = .55)**

When I was uncertain as to the benefits of a new innovation initiatives …

I looked for ways to prevent or delay its implementation	.70
I presented my objections or concerns to senior management	.73
I protested against the need to develop the new initiative	.81
I complained about this to my colleagues	.72
I still spoke highly of it to colleagues [b]	-

- **Resistance to Change (Employee) (CR = .86, α = .78, AVE = .60)**

When I was uncertain as to the benefits of a new innovation initiatives …

I looked for ways to prevent or delay its implementation	.83
I presented my objections or concerns to senior management	.69
I protested against the need to develop the new initiative	.83
I complained about this to my colleagues	.74
I still spoke highly of it to colleagues [b]	-

- **Intrinsic Motivation (Manager) (CR = .86, α = .75, AVE = .67)**

I feel that I am good at generating novel ideas.	.88
I enjoy in elaborating or improving upon others' ideas.	.85
I have confidence in my ability to solve problems creatively.	.72

- **Intrinsic Motivation (Employee) (CR = .85, α = .67, AVE = .73)**

I feel that I am good at generating novel ideas.	.76
I enjoy in elaborating or improving upon others' ideas.	.94
I have confidence in my ability to solve problems creatively [b]	-

- **Experimental Culture (Manager) (CR = .87, α = .81, AVE = .63)**

Errors are considered a source of learning.	.75
There is room for new initiative.	.81
There is freedom for experimentation and exploration.	.82

We are encouraged to take risks when trying new ideas.	.80
• **Experimental Culture (Employee) (CR = .87, α = .83, AVE = .62)**	
Errors are considered a source of learning.	.70
There is room for new initiative.	.69
There is freedom for experimentation and exploration.	.86
We are encouraged to take risks when trying new ideas.	.88

Note. α = reliability coefficient; CR = composite reliability; AVE = average variance extracted. Unless stated, all items are measured on a Likert-type scale— (1) strongly disagree, (7) strongly agree. [a] Scale: (0) not at all, (1) rarely (2) sometimes (3) Fairly often (4) Frequently, if not always. [b] Scale item dropped during analysis.

3.4.5. Survey, sample and data collection

This study is based on data from multiple informants within a large organization that is involved in Technical Vocational and Educational Training (TVET) in Malaysia. Data was obtained from three levels: senior managers—the director and deputy directors of 14 regional offices; 230 unit managers; and two employees from each unit (460 in total). We believed that this survey on the impact of leaders' constructive deviance on follower behaviour would provide us with a view that would then enable us to answer our research questions in detail from their perspective. At the first stage we tested senior managers (the state director and deputy director) as the leaders and the unit managers as the followers. At the second stage, meanwhile, we tested the unit managers as the leaders and frontline employees as followers. The responses from the two frontline employees were averaged.

Currently, hundreds of technical training programmes are offered by the firm in order to meet customer (industry) unique and standard demands in the context that the ILMIA[8] expect about 1.3 million TVET workers to be employed in Malaysia in 2020. The management's reform of delivery systems is one of the firm's game changers for survival and was the reason why this firm was chosen. The firm's initiative since 2017 to operate

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[8] The Institute of Labour Market Information and Analysis that operated under The Ministry of Human Resources responsible for analysis of labour market trends and emerging human capital issues which will contribute to better human capital planning and more effective formulation of labour market policies. https://www.ilmia.gov.my/index.php/en/research-publication/research

in accordance with MS ISO 9001: 2015 – Quality Management Systems shows that the management is striving to achieve competitive advantages in a context where there are currently more than 500 TVET institutions (private and public) in Malaysia offering similar technical training programmes with different qualities.

Table 3.2: Research Sample

Regional	Regional Office (Director/Deputy)	Branch (Managers)	Branch (Staffs)	Total Participant
Perlis	2	3	6	10
Kedah	2	15	30	46
Penang	2	14	28	43
Perak	2	24	48	73
W. Persekutuan	2	12	24	37
Selangor	2	23	46	70
N. Sembilan	2	8	16	25
Melaka	2	7	14	22
Johor	2	26	52	79
Pahang	2	16	32	49
Terengganu	2	10	20	31
Kelantan	2	15	30	46
Sabah	2	27	54	82
Sarawak	2	30	60	91
Total	**28**	**230**	**460**	**704**

Table 3.3: Sample Characteristics

Level Participant	Service Tenure		Age		Education		Gender	
Senior Manager	≤ 5 Years	43.5%	36 ≤ 45 Years	28.6%	Diploma	17.9%	Male	92.0%
	> 5 ≤ 10 Years	35.0%	> 45 ≤ 60 Years	71.4%	Undergraduate	29.2%	Female	8.0%
	> 10 Years	21.4%			Postgraduate	52.9%		
					Other	-		
Unit Manager	≤ 5 Years	15.0%	26 ≤ 35 Years	12.1%	Diploma	24.3%	Male	77.9%
	> 5 ≤ 10 Years	30.7%	> 35 ≤ 45 Years	39.3%	Undergraduate	53.6%	Female	22.1%
	> 10 Years	54.3%	> 45 ≤ 60 Years	48.6%	Postgraduate	20.7%		
					Other	2.0%		
Employee (G1)	≤ 5 Years	7.1%	18 ≤ 25 Years	0.7%	Diploma	88.6%	Male	70.7%
	> 5 ≤ 10 Years	18.6%	> 25 ≤ 35 Years	23.6%	Undergraduate	8.6%	Female	29.3%
	> 10 Years	70.0%	> 35 ≤ 45 Years	51.4%	Postgraduate	0.7%		
			> 45 ≤ 60 Years	24.3%	Other	2.1%		

Prior to data collection, a list of names of employees with at least two years' work experience in this organization was received from the Human Resources Department. The questionnaire was emailed to respondents so that they could respond the questionnaire at their convenience, freely and truthfully without pressure. There were no right, or wrong answers, and we promised strict confidentiality to minimize social desirability bias. We sent a reminder with another copy of the questionnaire to those who had not responded after two weeks. To maximize the response rate, a hand-signed cover letter from management was emailed together with an executive summary of the study to each participant in the organization. We received 169 usable responses, yielding a 73% response rate.

3.4.6. Assessment of common method bias

As mentioned earlier, our main informants were senior managers in state offices and managers with employees from 230 business units throughout the country. All participants were asked to respond to the survey questionnaires based on their context and position. In other words, each level could cross-validate with each other and this potentially reduced the common method bias that often occurs during such data collection exercises. For example: (1) the common rater effect, where data on different variables were collected from similar informants; (2) Item characteristic effects, where items are presented to respondents in such a way as to produce bias in the observed relationships; (3) Item context effects; where bias arises from any influence or interpretation ascribed to an item solely because of its relation to the other items; (4) Measurement context effects; where bias arises from the context in which the measures are obtained, for example collecting data at the same point in time, thus inflating or deflating the relationships among constructs (Podsakoff *et al.*, 2003).

Since this study gathered data from different respondents, common method bias (CMB) was less likely to pose a problem. Nevertheless, Harman's single-factor test was performed to assess CMB. We loaded all items into exploratory factor analysis with a nonrotated solution. This showed that the first factor does not explain more than 50% of the variance (i.e., it accounts for 23.74% of the variance in the data), meaning that common method bias is not an issue in this study (Podsakoff *et al.*, 2003).

3.5. Analysis and Results

Partial least squares (PLS) from SmartPLS v3.0 (Joseph F. Hair *et al.*, 2012; Hair, Ringle and Sarstedt, 2013) was used to estimate measurement and the structural model with a bootstrapping procedure of 500 resamples to generate t-values (Tenenhaus *et al.*, 2005). According to Hair, Ringle and Sarstedt, (2013), Partial least squares (PLS) path analysis is suitable for complex relationships models containing a large number of manifest variables relative to sample size, as well as for testing moderating hypotheses (Hair, Ringle and Sarstedt, 2013). PLS is more appealing when the research objective focuses on prediction and explaining the variance of key target constructs by different explanatory constructs (Hair *et al.*, 2012).

3.5.1. Measurement model

Prior to structural model testing of the hypotheses, it is important for us to test the reliability, convergent validity and discriminate validity of the measurement model to establish valid constructs. We therefore conducted exploratory factor analyses on all items in the study and during that process we removed the items that failed to achieve a loading of .5 on a factor, or items loaded onto more than one factor. Both indicators, Cronbach's Alpha and Reflective Indicator Loading, show high reliability (Hulland, 1999; Hair, Ringle and Sarstedt, 2011). Specifically, for all constructs, the Cronbach's

alpha values exceeded the recommended minimum of 0.70, while the standardized loadings were all above .6. Correlations between all latent variables are shown in Table 3.4.

Table 3.4: Latent Variable Correlation

	LATENT VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12
1	SM_CREATIVE_DEVIANCE												
2	UM_CREATIVE_DEVIANCE	.08											
3	EM_CREATIVE_DEVIANCE	-.01	.1										
4	BOOTLEGGING	.12	.320**	.1									
5	RESOURCES_STRAIN	-.06	.231**	-.08	.12								
6	UM_INTRI_MOTIVATION	.05	.212**	-.05	.207**	.220**							
7	EM_INTRI_MOTIVATION	-.01	-.01	.11	-.03	-.01	.159*						
8	UM_RESIS_CHANGE	-.06	.453**	.01	.233**	.267**	.04	-.11					
9	EM_RESIS_CHANGE	-.03	-.06	.331**	-.05	-.04	.06	.156*	-.09				
10	UM_EXP_CULTURE	-.08	-.07	-.15	.180*	-.1	.212**	-.1	-.02	-.08			
11	EM_EXP_CULTURE	-.03	-.02	.07	-.1	.01	.01	.303**	.02	.163*	-.12		
12	UNIT_STAFFS	-.07	.13	.02	0.00	.13	.04	.01	.05	-.09	-.03	0.00	
	MEAN (STD DEV)	1.1 (0.9)	1.5 (1.0)	1.4 (0.8)	4.4 (1.2)	5.1 (1.1)	5.6 (0.7)	5.4 (0.6)	3.7 (1.1)	3.8 (1.0)	5.4 (0.9)	5.5 (0.7)	8.3 (2.3)

Note *. P < .05;   **. P < .01   N – 169,   UM = Unit Manager, SM = Senior Manager, EM = Employee

Convergent Reliability was assessed using Average Variance Extracted (AVE), where each construct was greater than the squared latent factor correlations between pairs of constructs (Fornell and Larcker, 1981). Next, the Composite Reliability (CR) ranged from .84 to .96. This shows an adequate internal consistency (Gefen, Straub and Boudreau, 2000). We measured discriminant validity, i.e. whether each construct shared more variance with its measures than with other constructs in the model (Fornell and Larcker, 1981), and confirmed that no item had a higher cross-loading on another construct than its loading on its intended construct.

3.5.2. Structural model

We began assessing the structural model by checking whether our model has an issue with multicollinearity. The result revealed that the inner variance inflation factor (VIF) of all latent variables was less than 2, indicating that our model is free of multicollinearity issues (Hair, Ringle and Sarstedt, 2013). There were two models tested in the study. We examined the direct effect model first, in which we assessed the significance and

relevance of the relationships that linked two constructs. Second, we included moderating terms in our model. We used a bootstrapping procedure with 500 resamples for this. Next, we checked: (1) the model's level of R^2 in order to predict model accuracy; (2) the model's effect size ($f - sq$) to measure how strongly exogenous constructs contribute to explain the endogenous constructs; and (3) the model's predictive relevance Q^2.

Table 3.5: Partial Least Squares Results

PATH	MODEL 1 Path Coefficient (T-Value)	MODEL 2 Path Coefficient (T-Value)	HYPOTHESES
DIRECT RELATIONSHIP			
SM Constructive deviance -> UM Constructive deviance	.14 (1.32) [t]	.14 (1.33) [t]	H1 (a) Accepted
UM Constructive deviance -> EM Constructive deviance	.11 (1.54)	.12 (1.56) [t]	H1 (b) Accepted
SM Constructive deviance -> Bootlegging Initiatives	.13 (1.68)	.11 (1.57) [t]	
UM Constructive deviance -> Bootlegging Initiatives	.18 (2.24) *	.12 (1.73) [*]	H2 Accepted
EM Constructive deviance -> Bootlegging Initiatives	.14 (1.68)	.13 (1.46) [t]	
UM Intrinsic Motivation -> UM Constructive deviance	.22 (3.28) *	.22 (3.40) *	
UM Intrinsic Motivation -> Bootlegging Initiatives	.10 (0.95)	.15 (1.63)	
UM Resist to change -> UM Constructive deviance	.45 (7.33) *	.46 (7.40) *	
UM Resist to change -> Bootlegging Initiatives	.13 (1.38) [t]	.15 (1.72) [t]	
UM Experiment Culture -> UM Constructive deviance	-.10 (.99)	- .10 (1.01)	
UM Experiment Culture -> Bootlegging Initiatives	.24 (2.10) *	.22 (2.30) *	
EM Intrinsic Motivation -> EM Constructive deviance	.06 (0.65)	.06 (0.61)	
EM Resistance Change -> EM Constructive deviance	.36 (4.95) *	.35 (5.01) *	
EM Experiment Culture -> EM Constructive deviance	.03 (0.26)	.04 (0.26)	
Resources Strain -> Bootlegging Initiatives	.11 (0.82)	.11 (0.84)	
Size-> Bootlegging Initiatives	- .01 (0.05)	- .03 (.65)	
INTERACTION			
SM Constructive deviance * UM Constructive deviance -> Bootlegging Initiatives		.15 (1.30) [t]	H3 Accepted
EM Constructive deviance * UM Constructive deviance -> _Bootlegging Initiatives		.17 (1.66) [*]	H4 Accepted
VARIANCE EXPLAINED	R2	R2	
Bootlegging Initiatives	0.21	0.25	
EM Constructive deviance	0.14	0.14	
UM Constructive deviance	0.29	0.29	

*Path significant at p < .05 t significant at 10% level (one-tailed),

3.5.3. Direct effects model

The study tested across two dyadic leader–follower relationships: (1) State directors and/or deputies as the leaders and unit managers as the followers, and (2) Unit managers as the leaders and frontline employees as the followers. We tested the main effects of the leaders' constructive deviance on followers' constructive deviance, as we hypothesized in H1 (a) (b). We controlled for intrinsic motivation, resistance to change and experimental culture at both levels.

The results showed that senior management's constructive deviance was positively associated with unit managers' constructive deviance (β= .14, p < .10); and that unit managers' constructive deviance was positively associated with employees' constructive deviance (β= .12, p < .10). Therefore, H1 (a) (b) are supported. In support of H2, we found strong evidence that unit managers' constructive deviance was positively associated with the degree of unit bootlegging initiatives (β= .12, p < .10). This indicates that bootlegging initiatives are more actively engaged with by other members when the unit manager possesses strong constructive deviance.

We also determined whether senior managers' constructive deviance and employees' constructive deviance have a direct influence on the unit's bootlegging initiatives. It would be expected that not only does the leader reinforce the impact of deviant behaviour on followers vertically, but that senior managers' constructive deviance is positively associated with employees' constructive deviance on bootlegging initiatives. As shown in table 3.5, both senior managers and employees appear to have a statistically significant and positive relationship to bootlegging initiatives (β= .13, p < .10 and β= .14, p < .10, respectively).

3.5.4. Moderated model

As shown in table 3.5, the model explained 25%, 14% and 29% of the variance in bootlegging initiatives, employees' constructive deviance, and managers' constructive deviance, respectively. We accounted for two moderating terms in this conceptual model in which we hypothesized (1) senior managers' constructive deviance (2) employees' constructive deviance as moderating the relationship between unit managers' constructive deviance and unit bootlegging initiatives. The increase in R^2 for bootlegging initiatives ($\Delta R^2 = 0.04$, $p < 0.02$) is significant.

We plotted all their relationships in order to show the patterns of interaction and to help us to understand this moderating effect (see Figures 3.2 and 3.3). First, table 3.5 shows that senior managers' constructive deviance would strengthen the positive relationship between unit managers' constructive deviance and unit members' bootlegging initiatives (β= .15, p < .10). This proves that the interaction of senior managers' constructive deviance behaviour and unit managers' constructive deviance positively predicts other unit members' engagement with bootlegging initiatives. This is in line with our prediction and thus, H3 is supported.

Second, we predicted that higher levels of employee constructive deviance would strengthen the relationship between unit managers' constructive deviance and unit members' bootlegging initiatives. Indeed, the results show that, when constructive deviance is always deployed by employee at workplace, it would strengthen the influence of managers' constructive deviance on other unit members' engagement with bootlegging initiatives (β= .17, p < .10). Hence, H4 is also supported.

These results suggest that the impact of unit managers' constructive deviance on unit members' bootlegging activities is greater when both senior managers and employees are

engaged with constructive deviance. Although, both parties play important roles in influencing others and triggering the emergence of bootlegging initiatives, employees' constructive deviance is found to have the greatest influence on others engaging with bootlegging initiatives.

We visualized the regression slope coefficients in figures 3.2 and 3.3 to manifest the effect of unit managers' constructive deviance on unit members' bootlegging initiatives, when senior managers' constructive deviance and employees' constructive deviance is high.
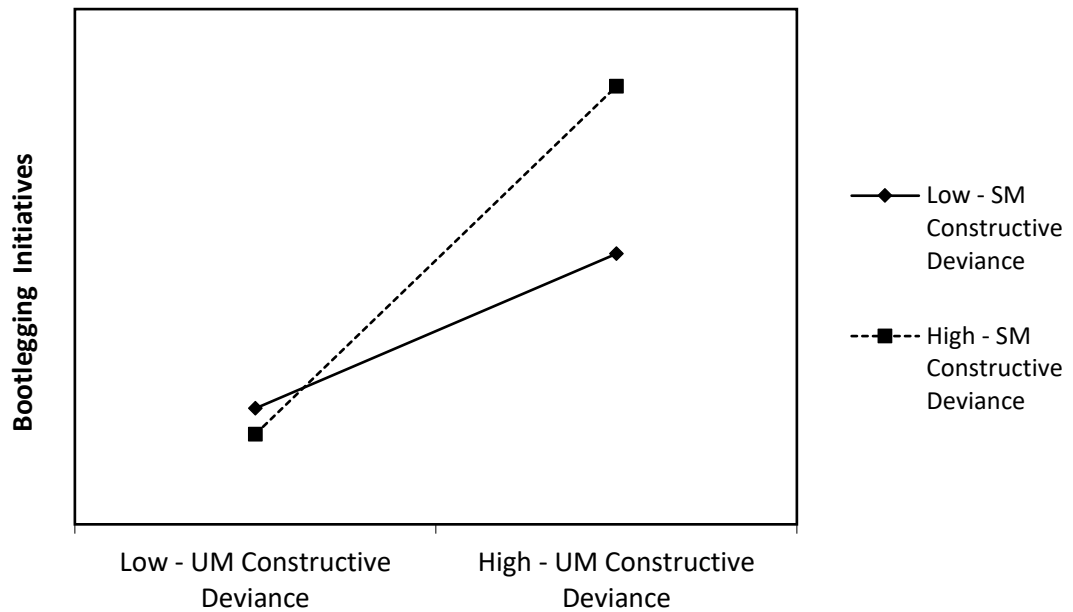
Figure 3.2: Moderation effect of senior managers' constructive deviance
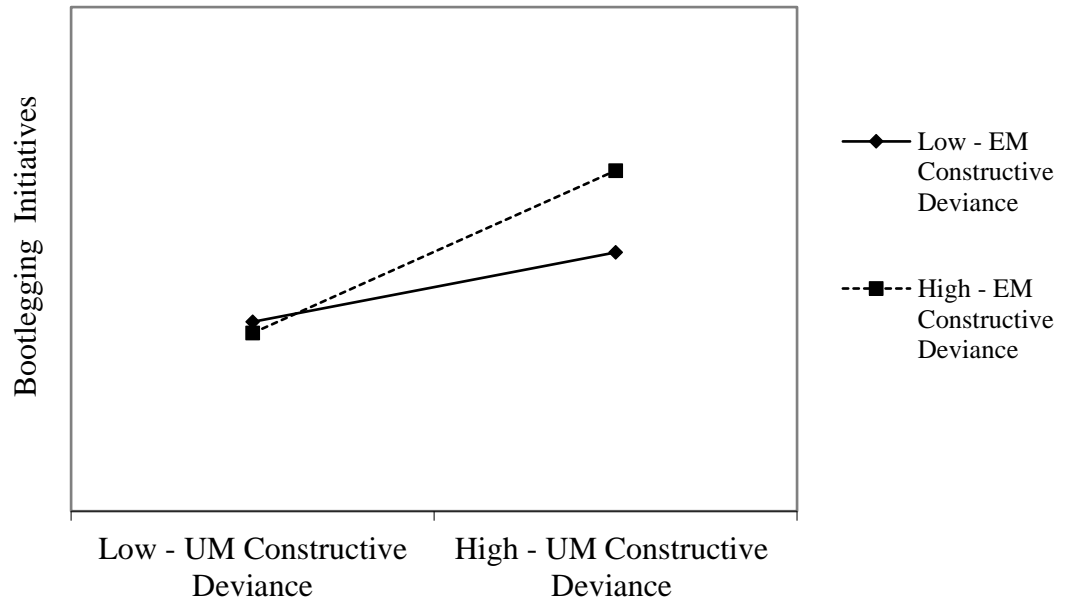
Figure 3.3: Moderation effect of employees' constructive deviance

3.6. Discussion

This research builds on the assertion that individuals that actively engage with constructive deviance are a source of change in an organization and promote the creation of new ideas for service innovation, new service development (NSD) and process improvement by fostering bootlegging initiatives (Augsdorfer, 2005; Galperin, 2012).

3.6.1. Theoretical implications

This research makes a number of contributions to theory. First, it answers the call to attain a better understanding of service innovation in particular issues related to the enhancement of organizations' capabilities for new value creation (Ostrom *et al.*, 2015). Employees and managers are now required to be more creative and innovative in the way they perform their jobs (Birkinshaw, Hamel and Mol, 2008), and they might need to go beyond their boundaries and expectations to deliver better quality services in order to

satisfy customers' need and solve their problems (Beatty *et al.*, 2016), crucially, seeking their own resources for idea elaboration (Kannan-Narasimhan, 2014).

The above process might challenge existing norms, however, because formal innovation frameworks and the availability of resources may limit employees ability to pursue their ideas, thus creating structural strain[9] (Mainemelis, 2010). Such employees will attain their goals rather than focus on normative enforcement of rules (Merton, 1968). We contributed to the literature on bootlegging, and on constructive deviance more broadly, by demonstrating the positive relationship between a unit's bootlegging initiatives and its possession of people with high levels of constructive deviance. Constructive deviance is recognized to change an organization's status quo and contributes to the wellbeing of an organization, its members, or both (Galperin, 2012; Dahling and Gutworth, 2017).

The results show that unit managers' constructive deviance directly influences the degree of bootlegging initiatives in the unit. When individuals have an orientation to break organizational rules, for constructive benefits, it will motivate them to go underground, out of management sight, when developing ideas that may be turned down by senior management. Bootlegging initiatives can also serve as preliminary research utilizing trial and error learning processes to develop ideas without the need for justifying why the project failed, and only devoting effort to developing a proposal to management once the initiative has been proven to benefit the organization, thus avoiding premature management decision making (Masoudnia and Szwejczewski, 2012). The results support existing research showing that deviant behaviour, such as extra-roles behaviour, issue-

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[9] structural strain, a situation where social systems may lack the capacity to provide all individuals with access to the legitimate means that they need to pursue culturally-defined goals (Merton, Social Theory and Social Structure, 1968).

selling, whistle blowing, and taking charge positively contribute to organizations (Vadera, Pratt and Mishra, 2013).

Second, the aim of this paper was to explore the dissemination of constructive deviance between leaders and followers. Despite the undisputed importance of frontline employees as the first representatives of an organization, the effect of leaders' constructive deviance on followers' constructive deviance has not been previously investigated, especially in the area of service innovation. Existing research has discussed leader–follower dissemination of motivation, psychological empowerment and behaviour (Jan Wieseke *et al.*, 2009; Wieseke *et al.*, 2011; Alavi *et al.*, 2018), showing that leaders with strong identification in the organization inspire and strengthen followers' motivation to work hard, identify with those leaders' values and imitate those leaders acts (Ashforth and Mael, 1989).

Our study findings empirically show that leaders with constructive deviance are able to influence their employees to act with similar behaviours. To the best of our knowledge, this study is the first to investigate leader–follower constructive deviance contagion across three hierarchical levels of an organization. Drawing on behavioural (emotion) contagion theory and theories of identity, we find support for our hypothesis that constructive deviance behaviour spills over from leaders to followers and that this works at multiple levels: (1) senior managers to unit managers, and (2) it continues to cascade down from unit managers to frontline employees.

Existing literature has found that emotions are more likely to be transferred from individuals with high power to individuals with less power (Anderson, Keltner and John, 2003). Thus, employees, who are usually ranked as less powerful individuals in the organization, are more likely to mimic the emotions of high-power individuals. When

followers see leaders' demonstrating constructive deviance, such as breaking rules to achieve the organization's goals, they are more likely to go beyond their job descriptions and be willing to engage with constructive deviance behaviour as well (Vadera, Pratt and Mishra, 2013; Dahling and Gutworth, 2017).

Further, our moderation analysis shows that the influence of unit managers' constructive deviance on the unit's bootlegging initiatives depends on both the leaders' and the employees' constructive deviance. Under low level of leader constructive deviance, or low levels of employee constructive deviance, the unit manager's constructive deviance behaviour was found to have less influence on the unit's bootlegging initiatives. A high level of leaders' and employees' constructive deviance, however, strengthens the impact of unit managers' constructive deviance. This may be explained by constructive deviance having both a conceptual influence—increased understanding and tolerance of bootlegging—and an instrumental influence—encouraging unit members to engage with bootlegging initiatives. It is okay to depart from previously-established methods, procedures and solutions if unit members' aim is to benefit the organization (Scopelliti *et al.*, 2014; Stokes, 2014).

When a leader's constructive deviance aims are in-line with a unit's bootlegging initiatives, it potentially increases the leader's flexibility and willingness to accept the unit's bootlegging initiatives. This then encourages unit members to engage with bootlegging initiatives. Furthermore, leaders with constructive deviance may turn a blind eye to bootlegging initiatives, and this will also enable some of the bureaucratic processes at the front-end of the innovation process to be avoided (Hlavacek and Thompson, 1973; Augsdorfer, 2008).

The positive association between unit managers' constructive deviance and units' bootlegging initiatives arises from the fact that leaders who have constructive deviance are likely to be more flexible and tolerant towards followers who engage in similar behaviours. Leaders with constructive deviance may inspire and provide learning opportunities to support employees' creation of novel ideas and increase employees' innovation capabilities (Newman *et al.*, 2018). Existing research manifests the role of leaders in stimulating employees creativity behaviour (Kraft and Bausch, 2016; Newman *et al.*, 2017; Zheng *et al.*, 2020) and motivating employees to go beyond the boundaries and their expectations (Beatty *et al.*, 2016).

Similarly, employees with constructive deviance would support and encourage managers to bend the rules if they assume that more benefits could be reaped, particularly in respect to serving customers' needs and solving their problems. This might be due to the trust and culture established in the group, which strengthens their tendency to support each other. Thus, employees who have always committed constructive deviance will encourage other members to bring changes or proceed with the idea secretly until its benefits to the organization have been proven.

3.6.2. Managerial implications

Our findings have several important implications for both managers and organizations. The research reveals the critical role that unit managers' constructive deviance plays in fostering creativity and innovation in organizations. Leader–follower relationships enable constructive deviance to be transferred down the organization: senior manager – unit manager – employees. Middle (unit) managers are thus shown to be boundary-spanning actors who operate at a key intersection between top management members and employees lower in the organizational of hierarchy.

The study thus brings much fruitful understanding of the middle manager level as they function in a dual context. First, unit managers as followers imitate senior managers' actions when initiating and implementing major organizational change (Grimpe, Murmann and Sofka, 2019). Second, they are an important instrument of change as they show their own followers an alternative way of doing things. They encourage employees to bend the organization's rules, helping identify opportunities the organization and its stakeholder would reap benefits from (Galperin, 2012). The leaders must be the first person to think creatively (Mainemelis, Kark and Epitropaki, 2015) and it is this that motivates staff to work beyond their boundaries (Hill *et al.*, 2012).

Unit managers' constructive deviance plays a critical role in fostering bootlegging initiatives. Within this context, unit managers plays a crucial role in delivering innovation success; seeking internal and external sources of service innovation (Witell *et al.*, 2017). In organizations with extensive formal processes, insufficient resources for idea elaboration, or micropolitics in respect to innovation budget allocation, product development and service innovation might not occur by following the rules. To address these problems, unit managers can engage in covert a or underground activities.

Senior management must be open and flexible towards bootlegging initiatives. Management should consider the positive organizational outcomes that have been produced via bootlegging initiatives. Senior managers who ignore the contribution of bootlegging may wind up punishing, alienating, or even firing unit members who are making efforts, in good faith, to improve the organization's practices. By punishing all forms of positive deviance without consideration of the motivation, organizations may miss opportunities to explore and exploit new opportunities and curtail their ability to sustain a competitive advantage.

3.6.3. Limitations and future research

This study has made an important contribution to our understanding of the role of constructive deviance in stimulating units' bootlegging initiatives. As with any study, however, there are limitations that restrict the study's interpretation and generalizability. The relatively low explanatory power of constructive deviance contagion indicates that this behaviour on its own cannot be guaranteed to be successfully transferred between leaders and followers. The results in respect to the contagion of constructive deviance were significant at the 10 percent confidence level and we tested for possibility of the relationship in one direction of interest; using one-tailed test. This disregards the possibility of a relationship in another direction. Further, this study is one of the first to investigate the process by which leaders' constructive deviance behaviours can be transferred towards follower behaviour. Additional research is necessary to identify other potential moderators of the relationship between leaders and followers, such as senior managers' charismatic leadership (Sy, Choi and Johnson, 2013) and organizational identification (Albert, Ashforth and Dutton, 2000).

Since our research was cross-sectional in nature, collecting information on individuals' constructive deviance at a single point in time, it is not suitable for describing and analysing change, and this limits the ability to infer causality. Further research using longitudinal data and/or experimental design could address these limitations. Longitudinal studies could focus on the leader–follower constructive deviance behaviour beyond one point in time and also makes it possible to track the development of the characteristics of a target participant (Shek and Liang, 2008).

The study manifests unit managers' constructive deviance behaviour as an antecedent factor for units' bootlegging initiatives. Higher levels of both senior management and

employee creative deviance supports bootlegging. Further research is needed to explore the factors that can influence management to institutionalize bootlegging initiatives, so that it becomes recognized and accepted in the organization. Furthermore, the study can be extended into the outcomes of bootlegging initiatives in terms of both the unit's performance and the outcomes on the individuals responsible for bootlegging. Unit managers may experience serious consequences affecting their career development if they pursue bootlegging, but this could be alleviated if senior managers themselves embrace constructive deviance.

3.7. Conclusion

Constructive deviance behaviour provides many benefits to organizations, such as improved organizational effectiveness and competitiveness. Although research has increasingly focused on constructive deviance's antecedents, our understanding of its consequences is still limited. Our studies clarified whether contagion behaviour can be transferred in the dyadic relationship between leaders and followers so as ultimately to foster unit members engagement with bootlegging initiatives. We show how leaders with constructive deviance influence followers to act with similar behaviour. Understanding how leaders', managers' and employees' constructive deviance interacts to encourage bootlegging is important for the study of innovation and new product development in service companies.

CHAPTER FOUR – BOOTLEGGING SUCCESS: THE IMPACT AND MODERATING FACTORS*

4.1. Introduction

Can bootlegging be a driver of sustained new service success? The world's innovation landscape is now changing, and today's economic environment demands that organizations design new services and transform existing services to enhance productivity and performance. Many companies have focused on established approaches to innovation entailing structured product and service development processes (O'Cass and Wetzels, 2018). It has been widely reported that the success of such approaches stems from the commitment of top management (Elenkov and Manev, 2005; Heyden, Sidhu and Volberda, 2018).

There is, however, another side of innovation that can benefit organizations: bootlegging initiatives that emerge from bottom-up exploration outside managements' formal innovation plans (Augsdorfer, 1996). Bootlegging initiatives in definition indicates as the process by which actors in organization actively initiated innovation ideas that aim to benefit the organization through unconventional way; that is outside of the organizations' formal innovation framework or organizational norms without senior management's formal authorization or support (Augsdorfer, 2005).

As suggested by Knight (1967), bootlegging is an informal way to elaborate ideas under a covert approach when innovators face barriers, for example under conditions of tight management control (Augsdorfer, 1996). Many important innovations (process improvements and development of new products) originated from bootlegging initiatives, e.g. BMW's 12-cylinder engine (which was awarded the "best innovators award" in

Germany), Audi's Quattro wheel-drive, and Nichia's LED bright light technology (Masoudnia and Szwejczewski, 2012).

We do not, however, know how bootlegging initiatives are successfully implemented after bypassing management's formal development channels. Should these bootlegging initiatives be accepted by the management despite being developed without their mandate? If organizational members violate management orders to stop working on an idea how should senior management respond? Here, we adopt a quantitative survey instrument to research whether there are certain approaches taken by unit members in managing bootlegging that may overcome obstacles, reduce senior management dissatisfaction, and eventually allow for further development of the initiatives. This is important since employees' innovative behaviour could be hampered if bootlegging is prohibited and organizations may miss opportunities to explore "uncharted" areas which are difficult to reach through official programmes.

In so doing, this study aims to make three main contributions to the strategic and innovation management literatures. First, there is a recognized need for in-depth studies of the bootlegging process and for more research on the nature and nuances of the bootlegging phenomenon (Globocnik and Salomo, 2015). We distinguish between bootlegging initiatives that are (1) unauthorized initiatives, and those that are (2) reworkings of initiatives previously rejected.

Unauthorized initiatives refer to initiatives that have been developed by unit members without presenting them to or seeking support from senior management. Reworked initiatives are those that have been reworked by unit members after previously being presented to the management and subsequently officially rejected. Both types of bootlegging initiatives face specific development issues and may have different effects

on performance outcomes. Unit members have to consider which type they may want to pursue. By providing insight into the performance implications of these two types of bootlegging initiatives, both at the unit level and at the individual level, the present study contributes to shed light on the elements that can make bootlegging initiatives more likely to be implemented, and thus bring more positive outcomes to organizations (Vadera, Pratt and Mishra, 2013; Globocnik and Salomo, 2015; Dahling and Gutworth, 2017).

Second, this paper extends our understanding of the conditions under which bootlegging initiatives could be implemented in the organization. We define bootlegging success as the extent to which bootlegging initiatives promoted by unit members are accepted by the management and adopted into the organization. This reflects whether initiatives eventually result in ongoing services in the marketplace, or whether such initiatives simply wither away and die. We hypothesize that a unit's coalition with internal and external parties, and the unit's creativity in providing their own resource, enhances the likelihood that bootlegging initiatives will be successful implemented, and thus accepted and recognized by the management. We thus seek to determine the extent to which the unit's agreement, or consensus from either internal or external parties, or both (Sethi, Iqbal and Sethi, 2012; Ommen *et al.*, 2016; Schleimer and Faems, 2016), along with resource-seeking activities (Kannan-Narasimhan, 2014; Li *et al.*, 2017; An *et al.*, 2018), are important factors for innovation success.

Currently, however, there is a lack of empirical evidence for which coalition-building and resource-seeking strategies are crucial for bootlegging success. To the best of our knowledge, this research is the first to explore whether coalition building could potentially be an effective mechanism to influence senior managers' decision making to accept and recognize bootlegging initiatives. We also explore the role of bricolage (Baker and Nelson, 2017) and external resource acquisition (Li *et al.*, 2017) on the extent to

which unit members are able to provide their own resources to develop successful bootlegging initiatives.

Third, this study answers a call for research exploring the mechanism through which bootlegging initiatives that positively impact unit performance can be fostered (Augsdorfer, 2005). Although existing studies have shown bootlegging activities to have a positive relationship with product innovativeness (Augsdorfer, 2005, 2008; Masoudnia and Szwejczewski, 2012) there has been little research on bootlegging's impact on organizational or unit performance. There is a recognized need to study the impact of bootlegging activities at the business-unit level since bootlegging is recognized as part of a bottom-up exploration strategy which plays an important role in an organization's ability to deliver sustainable competitive advantage (Akgün, Keskin and Byrne, 2012; Storey *et al.*, 2016; Anzola-Román, Bayona-Sáez and García-Marco, 2018).

We extended our study to explain the extent to which bootlegging initiatives—both unauthorized and reworked—lead to unit innovativeness and thus ultimately improved organizational innovative performance. Furthermore, we study the role of strategic autonomy in facilitating this process since existing literature has highlighted autonomy as a key success factor for product and service innovation (de Brentani, 1989; Storey *et al.*, 2016).

Finally, a neglected area of research is the effect of bootlegging on the individual. What is the impact of bootlegging behaviour and success on the bootlegger's career in the organization? Criscuolo, Salter and Ter Wal, (2014) showed that bootleggers are rated by their managers to have a better innovative performance than their peers. We contend, however, that individuals who are engaging in bootlegging behaviour may experience adverse effects on their career, irrespective of organizational outcomes.

Although, previous studies usually mention the positive side of deviant activities, including bootlegging projects (Dahling *et al.*, 2012; Vadera, Pratt and Mishra, 2013; Globocnik and Salomo, 2015), management typically show great dissatisfaction with this approach. We argue that even successful initiatives may be detrimental to employees, as senior management may feel undermined or threatened by this action. Existing literature has highlighted the leader's role in supporting employees' creative behaviour (Gumusluŏlu and Ilsev, 2009; Kao *et al.*, 2015). We therefore demonstrate the importance of transformational leadership as a moderating factor that strengthens or weakens the impact of bootlegging success on individual career performance.

4.2. Bootlegging Initiatives

Management has a dilemma as to whether to allow or prevent bootlegging activities, and indeed there is also no consensus among scholars about whether bootlegging initiatives should be considered desirable or undesirable. They have been claimed to disrupt management's efficiency and the effectiveness of formal innovation controls and dilute the organization's strategic focus (Masoudnia and Szwejczewski, 2012). On the other hand, employees' innovative behaviour could be hampered if bootlegging initiatives were prohibited and organizations may miss opportunities to explore "uncharted" areas which are difficult to reach through official programmes.

Furthermore, according to Dahling *et al.* (2012), unit members may engage in bootlegging not because they are disloyal, but because they expect to reap benefits by departing from organizational norms. Although, bootlegging challenges and goes against the management, it is not necessarily a behaviour that represents a bad attitude (Peterson, 2002; Morrison, 2006) or leads to organizational harm (Bennett and Robinson, 2000). In fact, individuals that usually go beyond their boundaries are said to have high self-

efficacy, challenging the status quo and exerting more effort in pursuit of their aims (Vadera, Pratt and Mishra, 2013). Such individuals are more likely to engage in bootlegging behaviour (Globocnik and Salomo, 2015).

Research has shown that some unit members integrate their knowledge and experience with customers to develop innovative service solutions (Santos-Vijande, López-Sánchez and Rudd, 2016; Siahtiri, 2018). Service solutions refers to ad hoc innovation or unplanned solutions (Gallouj and Weinstein, 1997) to solve customers' unique problems. While customer needs and demands motivate firms to develop new offerings, bootlegging initiatives would enable firms to provide new attributes in these offerings. Moreover, Beatty *et al*. (2016) found that employees went beyond their tasks to address customers' "special requests" in an innovative fashion and, thus, ensure firm's competitive advantage. In summary, bootlegging activities have often resulted in new or enhanced products, or new and improved processes (Augsdorfer, 2005, 2008). Therefore, it is expected that bootlegging would foster service innovation and enhance firms' performance.

Bootlegging initiatives are often viewed as those that can be pursued without formally seeking the allocation of organizational resources (Mainemelis, 2010; Masoudnia and Szwejczewski, 2012). Since initiatives may not be allocated resources from the outset (Mainemelis, 2010; Globocnik and Salomo, 2015), to support the progress of their ideas bootleggers often leverage unused equipment and/or other internal resources (Kannan-Narasimhan, 2014; Witell *et al.*, 2017), or collaborate with external parties.

Bootlegging behaviour refers to the individual self-initiatives that emerge from bottom up process to work on ideas without management authorization and support but aims to benefit the company (Augsdörfer 2005). We can distinguish, however, between

bootlegging initiatives that are: (1) unauthorized initiatives, and (2) reworked initiatives previously rejected.

Unauthorized initiatives refer to initiatives that have been promoted by unit members without presenting them to the senior management first. Knight (1967) defined the bootlegging activities as secret innovation processes undertaken by bypassing management decisions in order to avoid potential obstacles. Scholars highlighted that bootlegging activities could avoid the premature rejection of early stage ideas by first gathering information and resources under the radar in order to prove first feasibility and the potential of the idea (Mainemelis, 2010; Masoudnia and Szwejczewski, 2012).

Unit members would directly carry out these new ideas without management authorization and approval assuming there would be "no approval" by the management. The initiative would be brought to the management only once its benefits are clear. Given senior managers' risk averse attitude, when no clear evidence of idea potential is presented and hence 'no hope for approval' exist, unit members tend to engage in unauthorized initiatives. In the R&D field, researchers prefer to engage in trial and error processes under "in-house grants" so that they can have the freedom to explore the development of new services or products and avoid management's psychological pressure on performance measurement (Augsdorfer, 2008).

Reworked initiatives refer to initiatives that have been carried out by unit members after their initial ideas were proposed to and officially rejected by the management. Unit members then violate managerial orders and break the organizational norms to continue working on proposed ideas. The rejection of the ideas by the management may be due to insufficient resources (Mainemelis, 2010) and/or as a result of formal selection processes that have filtered them out due to their degree of risk (Ahuja and Lampert, 2001), lack of

clarity (Ford, 1996) and organizational fit (Dougherty and Heller, 1994), etc. Pontiac's Fiero model; HP's electrostatic displays and the bright blue light-emitting diode (LED) are all outcomes of initiatives that were initially rejected by management before being reworked and successfully developed.

The designer of Pontiac's Fiero violated three management orders to stop development of the prototype; David Packard himself instructed his engineer to abort HP's large electrostatic displays project (Tenzer and Yang, 2019), and Shuji Nakamura, a scientist who invented the bright blue light-emitting diode (LED) at Nichia, continually ignored the CEO's orders to stop his research immediately (Tenzer and Yang, 2020).

4.3. Conceptual Framework and Hypothesis Development

Figure 4.1 presents a framework that shows the link between the engagement in bootlegging initiatives (both unauthorized and reworked initiatives), the success of said initiatives (specifically the acceptance and adoption by the organization)[10] and both organizational and individual performance outcomes. As with bootlegging initiatives, we conceptualize bootlegging success as: (1) success of unauthorized initiatives, and (2) success of reworked initiatives.

Unauthorized success refers to initiatives that were developed without proposing the potential of the idea to the senior management at first, before being successfully implemented by unit members and eventually adopted in the organization. On the other hand, the success of reworked initiatives occurs when initiatives that were officially rejected by the management were eventually developed and adopted by the organization.

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[10] For brevity we do not specifically hypothesise the direct effect of bootlegging initiatives on bootlegging success.

Recent studies suggest that the success of bootlegging initiatives could be enhanced by building coalitions with internal and external parties (Evanschitzky *et al.*, 2012; Storey *et al.*, 2016) and by gathering adequate internal and external resources.

We develop theoretical support for the impact of bootlegging success on unit innovative success, as bootlegging could contribute to the service innovation process. Over time, it might help organizations explore and exploit novel ideas and activities which are the very foundations of new service development (Ostrom *et al.*, 2015). Furthermore, the unit's strategic autonomy will moderate the impact of bootlegging success on unit innovativeness. Although the success of bootlegging initiatives could bring organizational benefits, its impact on the careers of the unit members could also be negative, however. Given that senior managers are typically against bootlegging initiatives, bootlegging might be detrimental to the unit members' career development. We believe that transformational leadership styles may help to alleviate the negative impact of bootlegging success on the bootlegger's career.
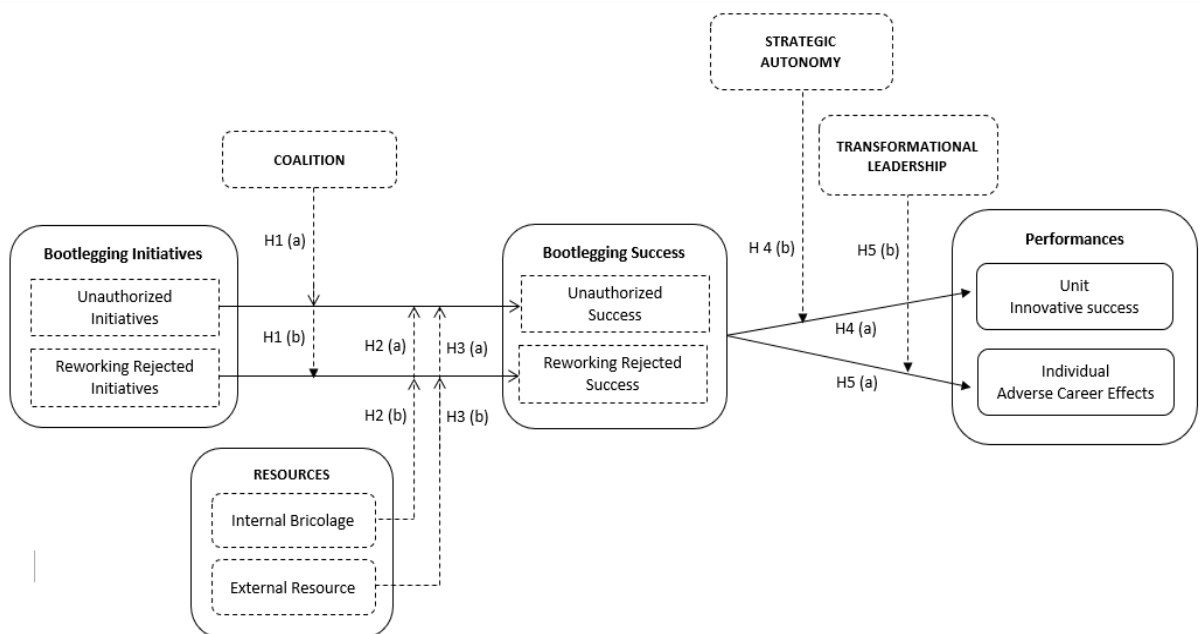

Figure 4.1: Hypothesized Model

4.3.1. The moderating role of coalition building on bootlegging success

The extent to which unit members form coalitions can be considered an important strategy to convince senior management to buy into the bootlegging initiatives. Coalitions can be both internal, gaining senior manager support from across the organization, or with external stakeholders, such as customers, suppliers and other interested parties. Both internal and external coalitions are formed to seek management approval of, or legitimacy for, the bootlegging initiatives.

This is different, however, to the concept of external legitimacy, which focuses on the legitimacy granted by external stakeholders (Dougherty and Heller, 1994). Since bootlegging initiatives occur outside of formal innovation strategies and have no management authorization, it is proposed that coalition building may help bootlegging initiatives to be successful implemented. Sethi *et al.* (2012) highlight that building coalitions is a worthwhile strategy to persuade other people to support the idea and convince the management to accept and approve it in review meetings. Likewise, Bunduchi (2017) shows that legitimacy-seeking strategies, such as lobbying, relationship building, and seeking feedback, have usually been used by individuals who want to gain support for their initiatives.

Management legitimacy is important as it may also provide unit members with access to formal resources for further elaboration of their ideas. It is therefore critical for unit members to form coalitions to ensure that their bootlegging initiatives (whether unauthorized or reworked) can eventually gain legitimacy and acceptance from management and thus stand a chance of being actualized. We therefore posit:

Hypothesis 1: *Building coalitions with internal and external parties enhances the success of (a) unauthorized bootlegging initiatives (b) reworked bootlegging initiatives*

4.3.2. The moderating role of resources on bootlegging success

Having access to adequate resources has been recognized in portfolio management research as a key determinant and provides some evidence on the conditions under which resources can be successfully exploited during innovation (Storey and Harborne, 2012; De Massis *et al.*, 2017). Innovation activities face the challenge of scarce resources because all projects compete for similar resources (Kester, Hultink and Griffin, 2014). Moreover, formal strategies for innovation usually provide insufficient space and resources for managers to deploy ideas outside the mainstream business, particularly when emerging ideas arise (Augsdorfer, 2008; Masoudnia and Szwejczewski, 2012).

This is because resources are normally already assigned according to official innovation strategies (Augsdorfer, 2008). Given that bootlegging activities are conducted without management mandate or authorization, and no official resources are allocated at the beginning, a variety of strategies are embraced by unit members to provide their own resources to support bootlegging activities (Kannan-Narasimhan, 2014). We examine unit members' creativity in gathering their own resources by showing how internal bricolage and external resource gathering take place during the bootlegging process. The idea behind this study is that by gathering the resources needed to move their ideas forward the bootlegger can continue to progress their product/ service development idea without competing with other formal resources.

An internal bricolage strategy refers to the extent to which unit members solve problems and take advantage of opportunities by reusing unused resources, combining

existing resources together or "making do with whatever is in hand" (Baker and Nelson, 2005; Senyard *et al.*, 2014; An *et al.*, 2017). Bricolage has already been demonstrated by Kannan-Narasimhan, (2014) in the context of organizational ingenuity, where innovators employed bricolage activities to gain resources in the face of constraints during early-stage, untested, unproven innovations. Furthermore, Storey *et al.* (2016) mentioned that the study of bricolage remains a relatively underexplored area in service innovation research. Although Witell *et al.* (2017) studied bricolage activities in service innovation based on the four capabilities of: (i) actively addressing resource scarcity, (ii) making do with what is available, (iii) improvising when recombining resources, and (iv) networking with external partners, it has never been empirically investigated in the bootlegging context.

An **external resource strategy**, meanwhile, refers to the extent to which unit members obtain resources from external parties in order to further develop bootlegging initiatives. These resources can be intangible, such as new information, or tangible, such as financial support (Sirmon, Hitt and Ireland, 2007). We therefore posit:

Hypothesis 2*: An internal bricolage strategy enhances the success of (a) unauthorized bootlegging initiatives, (b) reworked bootlegging initiatives.*

Hypothesis 3*: An external resource strategy enhances the success of (a) unauthorized bootlegging initiatives (b) reworked bootlegging initiatives*

4.3.3. Bootlegging success and unit innovative success

The previous discussion implies that bootlegging initiatives, whether unauthorized or reworked, led to bootlegging success in the organization provided their organizational benefits were clear. Being considered as an organizational source of change, the

successful adoption of bootlegging initiatives has been recognized to benefit the organization in terms of new product development (Pascale and Sternin, 2005; Criscuolo *et al.*, 2014; Globocnik and Salomo, 2015). Previous research has also shown that bootlegging success increases organizational innovativeness (Masoudnia and Szwejczewski, 2012).

Bootlegging success would enable the organization to adopt new innovation processes and thus become more flexible in adjusting to customer and market conditions. Conversely, if management intolerance and inflexibility arises during the development of new initiatives, this could lead to a failure to incorporate new learning into the service concept, adversely affecting performance (Sethi, Iqbal and Sethi, 2012). No consensus has yet been reached by scholars as to whether bootlegging initiatives can be considered as a desirable or undesirable form of innovation. Indeed, the innovation literature reveals more conflict than consensus in respect to the recommended direction for the management of unconventional innovation (Kelley, 2009).

Existing studies on organizational capabilities, however, suggest that allowing employees to challenge established practices can increase a firm's innovativeness and improve its market performance (Tuominen, Rajala and Möller, 2004; Akgün, Keskin and Byrne, 2012). It reduces inefficient coordination, encourages self-interest-driven or value-driven individual actions (Gajduschek, 2003) and increases employees' freedom, with fewer standard operating procedures to negotiate while handling unique problems and generating new solutions (Barker and Mone, 1998).

Furthermore, bootlegging success may heighten other unit members' bootlegging efforts, facilitating the exploration of new domains in unorthodox ways (Criscuolo *et al.*, 2014) and thus positively affecting unit innovativeness. Organizational adaptability to new

approaches to product/service development may allow firms to respond quickly to changes in the market and evolve rapidly in response to shifts in their business (Gibson and Birkinshaw, 2004; Tuominen, Rajala and Möller, 2004). Informal coordination and integration practices may also strengthen the adaptive capacity of the organization (Akgün, Keskin and Byrne, 2012). For example, loose coupling, multiplexity and redundancy show that various units and activities in an organization are relatively independent and can adjust to changing demands in different ways and at varying rates (Staber and Sydow, 2002).

Existing literature has highlighted how adaptive capability enables firms to identify product-market opportunities. Marketing activities, for example, can be launched to identify new customer needs and diversify in new markets. Over time, the process of work becomes more linear and it is therefore easier for the management to assess and diagnose competitors' products and exploit their weaknesses to improve their own products in order to address customers' needs (Oktemgil and Greenley, 1997; Akgün, Keskin and Byrne, 2012).

Management acceptance of and adaptability towards bootlegging initiatives could realign organizations' technological know-how to new marketplaces, facilitating experimentation, risk taking, and learning from experience (Akgün, Keskin and Byrne, 2012), and thus allowing and supporting further development of bootlegging projects in the organization. We therefore posit:

Hypothesis 4 (a): *Bootlegging success enhances unit innovative success.*

4.3.4. The moderating role of strategic autonomy on unit innovative success

Strategic autonomy indicates the extent to which unit managers have independence in how to carry out their work with their own decisions (Oldham and Hackman, 1981; Bailyn, 1985; Parker, Williams and Turner, 2006). It provides employees with more work discretion (Globocnik and Salomo, 2015) and is expected to have a positive effect on performance (Hackman and Oldham, 1976). In previous studies, autonomy has been posited as a way to promote employees' entrepreneurial behaviour (Hornsby, Kuratko and Zahra, 2002) and creativity (Amabile *et al*., 1996). In the R&D context, researchers are commonly granted some free time to explore new avenues in their work (Amabile and Gryskiewicz, 1987).

Innovation studies also propose that creativity and innovation are fostered by granting employees substantial autonomy (Amabile 1996). If management fosters a "laissez-faire" approach in preference to structure and control there will be greater creativity early in the innovation process (Augsdorfer, 2008). Based on this literature, we argue that strategic autonomy positively moderates the relationship between bootlegging success and unit innovativeness for the following reasons.

First, bootlegging initiatives have been regarded as a valuable innovation practice in early innovation, and high autonomy enables managers to explore uncharted area so that more effort can be devoted to the realization of innovation projects for the benefit of the organization (Howell and Higgins, 1990). Second, autonomous strategic behaviour is a form of managerial entrepreneurial behaviour (Burgelman, 1983) that stimulates innovation via bottom–up processes. This then enables managers to exploit firms' competitive advantages and explore tomorrow's opportunities (Covin and Miles, 1999; Kuratko, Hornsby and Bishop, 2005). We therefore propose:

Hypothesis 4 (b): *Strategic autonomy enhances the positive effect of bootlegging success on unit innovative success.*

4.3.5. Bootlegging success and adverse career effects

As we have discussed earlier, successful bootlegging initiatives can potentially be adopted and lead to a positive impact on the organization performance. Activities that depart from organizational norms, however, are usually regarded by management as threatening the organization and its stakeholders (Robinson and Bennett, 1995). Employees involved in whistle blowing, prosocial rule breaking and issues selling (Vadera, Pratt and Mishra, 2013; Dahling and Gutworth, 2017) tend to be perceived by management as intending to harm others, hurt others' feelings or benefit themselves in the interests of personal gain (Vardi and Wiener, 1996). Furthermore, bootlegging behaviours that have been conducted without management authorization, or by overlooking management orders to stop, may lead to management dissatisfaction. This suggest that bootlegging, even if successful, may result in the bootleggers facing sanctions or serious career consequences, and potentially losing their jobs. We therefore posit:

Hypothesis 5 (a): *Bootlegging success leads to adverse career effects.*

4.3.6. The moderating roles of transformational leadership on adverse career effects

The study of transformational leadership has frequently been linked to organizational and employee performance in the workplace. It has been recognized as one of the critical factors to change employees' behaviour, particularly in terms of stimulating them to reach a high level of performance (Avolio, Bass and Jung, 1999; Howell and Hall-Merenda, 1999). Leaders with transformational traits display the following behaviours: (a) idealized influence, (b) inspirational motivation, (c) intellectual stimulation, and (d)

individualized consideration that can transform followers' aspirations, identities, needs, preferences and values to move them to a higher level (Bass and Avolio, 1994).

Existing literature has discussed transformational leadership and organizational effectiveness (Lowe, Kroeck and Sivasubramaniam, 1996), showing its effects on subordinates' organizational commitment and financial performance (Barling, Weber and Kelloway, 1996). A transformational leader develops his or her followers' self-confidence, self-efficacy and self-esteem (Bass, 1990) enhancing their motivation, morality and empowerment (Dvir *et al.*, 2002). Additionally, recent meta-analytic studies (Fuller *et al.*, 1996; Dumdum, Lowe and Avolio, 2013) have suggested that transformational leadership is positively related to work-related outcomes such as satisfaction, commitment and performance.

Although senior managers are typically averse to bootlegging initiatives, those with high transformational leadership skills are able to inspire, motivate and intellectually stimulate employees to develop new or improved products/services critical for organizational innovation (Elkins and Keller, 2003). Thus, we predict that leaders' transformational leadership and unit members' bootlegging initiatives could be aligned in order to reach similar organization goals.

We therefore argue that transformational leadership could affect the relationship between bootlegging success and adverse career effects. First, transformational leaders would motivate their employees' to perform beyond their expectations, and challenge them to adopt innovative approaches in their work (Chen *et al.*, 2014). Second, transformational leaders often behave in a certain way to set examples for team members (Podsakoff *et al.*, 1990). This includes acting as mentors to their team members (Sosik, Godshalk and Yammarino, 2004). Rather than sticking to rigid perspectives (i.e., inducing a high level of task conflict), leaders' role models could escalate employee innovative behaviour in

organizations. Thus, we propose that transformational leadership behaviours could influence bootlegging success by having a negative relationship to adverse effects on employees' careers:

Hypothesis 5 (b): *Transformational leadership weakens the relationship between bootlegging success and individual adverse career effects.*

4.4. Method
4.4.1. Measures

To construct the survey used in this study we conducted in-depth interviews with individuals at four different levels in the organizational hierarchy, using feedback from experts in the area of innovation and strategy to ensure content validity. We also undertook an extensive review of the management, innovation, marketing and organizational literatures to identify relevant constructs, which are then used to operationalize and establish scale items. The expert review also helped us to revise the questionnaire, designate new scales and items, and shape the conceptual model.

We adopted multi-item scales from prior studies for the measurement of constructs. Most of these were assessed using a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7), and "very unsuccessful" (1) to "very successful" (7) for sustainable competitive advantages. Internal and external coalition building were assessed on a numerical scale from "not at all" (0) to "if not always" (4). The English version of the questionnaire was developed first, and we then used a back-translation method conducted by a professional translator to ensure conceptual equivalence and accuracy.

4.4.2. Independent variables – bootlegging activities

Based on the desire to investigate employee self-initiative in bottom-up processes, we deployed the questionnaire at unit level among unit members who had conducted bootlegging activities to benefit the organization buy without management acknowledgement or receiving an official mandate from senior managers. We operationalized bootlegging activities into two dimensions:

Unauthorized initiatives (Cronbach's α = .78) refers to initiatives that were initiated by unit members without being initially proposed or presented to the management (Augsdorfer, 2005). We adapted three items from Globocnik and Salomo (2015) to capture the extent to which the unit members (1) regularly engaged in bootlegging initiatives before formal organizational approval or mandate, (2) bypassed official channels to pursue new initiatives or ideas, and (3) provided their own resources to pursue ideas.

Reworked initiatives (Cronbach's α = .91) refer to initiatives that were pursued by unit members after the initial idea had been officially rejected by management. Five items were adapted to measure the extent to which unit members (1) continued to improve some of the new ideas, (2) still worked on rejected ideas, and (3) strove to improve the rejected ideas by collecting information and trying again (Lin, Mainemelis and Kark, 2016).

4.4.3. Mediating variables – bootlegging success

The method for measuring bootlegging success in our questionnaire was developed from the literature on innovation portfolio management and from the participants' feedback during our qualitative study. We defined bootlegging success as the extent to which bootlegging initiatives are eventually successfully accepted in the organization. The success of bootlegging initiatives in an organization is also a manifestation of senior

managements' official acknowledgement and recognition. Consequently, the bootlegging initiatives would be granted with permission for further development. Again, it is based on two dimensions:

Unauthorized success (Cronbach's α = .76) refers to bootlegging initiatives that have been developed without management acknowledgement or an "official mandate" (unauthorized initiative) but eventually receive senior management recognition and possibly become part of the firm's potential initiatives/projects. Five items were developed to capture the extent to which initiatives were developed under the radar. Specifically, that bootlegging initiatives: (1) often resulted in new formal programmes or projects, (2) only received senior management formal approval after they had been operationalized *de facto*, (3) used minimal resources to stay under the radar (with limited visibility) of senior management, (4) were good at launching/introducing new initiatives without formal approval, and (5) "almost always needed to be subsequently withdrawn/cancelled (reverse scored).

Reworked success (Cronbach's α = .95) refers to bootlegging initiatives that continued to be developed by unit members even after the ideas were officially rejected by senior management at the outset. The initiatives eventually became official projects and received management recognition. We developed three items to capture the extent to which these initiative that were rejected by senior management at the outset were (1) subsequently developed and introduced, (2) resulted in successful new programmes, and (3) subsequently officially adopted by the organization.

4.4.4. Moderating variables

Coalition (Cronbach's α = .92) refers to when unit members engage with internal parties such as senior managers and other organizational actors and external parties; for example,

customers, suppliers, government agencies or the community to convince the management about the need to accept bootlegging initiatives. Six items were adapted from Sethi, Iqbal and Sethi (2012) to measure both internal and external perspectives. We measured the extent to which unit members: (1) informally approached other senior people in the organization to seek their buy-in for the proposal, and (2) got senior people in the organization to convince senior management of the proposal's potential, and (3) obtained the support of important people in the organization to back up their point of view.

While the above measures sought to capture the internal coalition strategy, external coalition building was measured by assessing the extent to which unit members: (1) gained support from people outside the organization to back up their proposal, (2) informally approached their organization's partner(s) to seek their buy-in for the proposal, and (3) got important people outside the organization to convince senior management of the proposal's potential.

Internal bricolage (Cronbach's α = .91) refers to the resources that were internally accumulated, combined, reused and improvised by unit members. We employed a seven-item scale from Li *et al.* (2017).

External resource (Cronbach's α = .85) refers to the resources that were gained from external stakeholders such as customer, supplier and government agencies, community, NGOs etc. Three items from Li *et al.* (2017) were used to capture the extent to which unit members: (1) acquired tangible material resources, for example finance or equipment, (2) acquired intangible resources such as knowledge or know-how, and (3) acquired business and managerial resources or capabilities. We also developed a new item that captured (4)

whether external resources could enable unit members to take on a broader range of new initiatives.

Strategic Autonomy (Cronbach's α = .87) refers to the freedom that unit members have in their workplace, particularly in terms of deciding what and how to implement new initiatives. We relied on the scale from Menguc *et al.* (2017) and asked participants to indicate on a seven-point Likert scale (from strongly disagree to strongly agree) if unit members: (1) have significant autonomy in determining how they carry out their role, (2) can decide on his own how to go about doing their job, (3) have considerable opportunity for independence and freedom in how they do their role.

Transformational Leadership (Cronbach's α = .93) refers to senior managers' transformational behaviour acting as a motivation for unit members to achieve performance beyond expectations by transforming their attitudes, beliefs and values. The employees are stimulated and encouraged to be more creative in doing their job and their concerns and needs will be senior managers' priority at the same time. Four items from McColl-Kennedy and Anderson (2002) were used to capture the extent to which senior managers (1) give personal attention to each business unit; (2) transmit a sense of mission to unit members; (3) increase unit members' enthusiasm; (4) emphasize the use of unit members' intelligence.

4.4.5. Dependent variables

Unit innovative Success (Cronbach's α = .89) Four items were used to reflect the unit's success in innovation, and these were: (1) the extent to which the unit's programme of innovation activities is considered highly innovative, (2) the extent to which the unit is perceived to be innovative, (3) whether innovation initiatives are usually introduced

quicker than in other units and (4) whether innovation initiatives/projects are developed on time or ahead of schedule (Storey and Kahn, 2010).

Adverse Career Effects (Cronbach's α = .81) refers to the existence of negative career outcomes for unit members engaged in bootlegging initiatives. We predicted a negative relationship between bootlegging initiative success and unit members' career progression. Based on our qualitative case study, we developed new items to measure whether unit members (1) have been effectively side-lined (or transferred sideways), (2) feel unfairly criticized by senior management, and (3) feel closely monitored by senior management. We also included measures reflecting the impact on attitudes towards the organization, i.e. the extent to which unit members like to work for the organization and whether unit members frequently think of looking for a new job (Stock, 2015; Wieseke *et al.*, 2009).

4.4.6. Control variables

We controlled for the size of business units based on the number of employees, since larger business units may have a reduced ability to be innovative due to management inertia and structural rigidity.

Table 4.1: Items for Measuring Constructs in the Model

Unauthorized Initiatives (CR = .87, α = .78, AVE = .69)	
- We regularly engaged with new initiatives before formal official organizational approval or mandate	.84
- We often bypassed official channels to pursue new initiatives or ideas	.85
- We provided our own resources for activities to pursue ideas	.81
Reworked initiatives (CR = .93, α = .91, AVE = .73)	
- We continued to improve some of the new ideas	.82
- We still worked on these ideas	.83
- We exerted effort to improve the rejected ideas by collecting information and trying again	.86
- Up to this point we still have not given up on some of the rejected ideas	.87
- We worked on improved versions of these ideas	.88
Unauthorized Success (CR = .84, α = .72, AVE = .64)	
- "Under the radar" developments often resulted in new formal programmes or projects,	.74
- A number of our successful new initiatives only received formal approval after the fact	.82
- We introduced new initiatives using minimal resources to stay "under the radar" (with limited visibility) of senior management	.75

- We were good at launching/introducing new initiatives without formal approval. .75
- Our "under the radar" initiatives almost always needed to be subsequently withdrawn/cancelled -

Reworked success (CR = .97, α = .95, AVE = .91)

Of the new innovation initiatives that have been turned down, or rejected by, senior management, a number of these ideas have:
- Subsequently been developed and introduced .96
- Resulted in successful new programmes .95
- Subsequently been officially adopted by the organization .95

Coalition (CR = .93, α = .89, AVE = .82)

- Obtained the support of important people in the organization to back up my point of view[a] .73
- Informally approached other senior people in the organization to seek their buy-in for the proposal[a] .87
- Got senior people in the organization to convince senior management of the proposal's potential[a] .87
- Obtained the support of important people outside the organization to back up my point of view[a] .87
- Partner organizations or people were informally approached to seek their buy-in for the proposal[a] .85
- Got important people outside the organization to convince senior management of the proposal's potential[a] .84

Internal Bricolage (CR = .91, α = .87, AVE = .72)

- We gladly take on a broader range of initiatives than others with our resources would be able to .72
- We use any existing resource that seems useful to responding to a new problem or opportunity. .83
- We deal with new initiatives by applying a combination of our existing resources and other resources inexpensively available to us. .80
- When dealing with new problems or opportunities, we take action by assuming that we will find a workable solution. .81
- By combining our existing resources, we take on a surprising variety of new initiatives. .78
- When we face new challenges, we put together workable solutions from our existing resources. .85
- We combine resources to accomplish new initiatives that the resources were not originally intended to accomplish. .83

External Resource (CR = .90, α = .85, AVE = .69)

Whilst developing ……, collaborations or partnership with external stakeholders,
- are used to acquire key tangible material resources (e.g. financial or equipment) .79
- are used to acquire key intangible resources (e.g. knowledge or know-how) .81
- are established to acquire business and managerial resources or capabilities .87
- enable us to take on a broader range of new initiatives .82

Strategic Autonomy (CR = .92, α = .87, AVE = .80)

- we have significant autonomy in determining how we carry out our role .92
- we can decide on our own how to go about doing our job. .93
- we have considerable opportunity for independence and freedom in how to do our role. .82

Transformational Leadership (CR = .95, α = .93, AVE = .83)

Our senior manager…
- Gives personal attention to each branch. .85
- transmits a sense of mission to us. .93
- increases my level of enthusiasm. .94
- emphasizes the use of our intelligence. .93

Innovative Success (CR = .95, α = .91, AVE = .85)

- This branch's programme of innovation initiatives is highly innovative .87
- This branch is perceived to be innovative .90
- Our innovation initiatives are usually introduced quicker than other branches .87
- Our innovation initiatives/projects are developed on time or ahead of schedule. .85

Adverse Career Effects (CR = .87, α = .81, AVE = .64)

- I believe I have been effectively side-lined (or transferred sideways) by management. .81
- I feel I am unfairly criticized by senior management. .85
- I frequently think of looking for a new job .76
- I like working for this organization. (reverse scored) .76
- I feel I am closely monitored by senior management[c] -

Note. α = reliability coefficient; CR = composite reliability; AVE = average variance extracted. Unless stated, all items measured on Likert-type scale— (1) strongly disagree, (7) strongly agree. [a] Scale: (0) not

at all, (1) rarely (2) sometimes (3) Fairly often (4) Frequently, if not always. [b] Scale: (1) very unsuccessful, (7) very successful. [c] Scale item dropped during analysis.

4.4.7. Survey, sample and data collection

The data for the study was obtained from unit managers from 230 business units operated under a large organization involved in Technical Vocational and Educational Training (TVET) in Malaysia. The ability to reform and transform TVET delivery system in order to meet industrial demand is one of the firm's game changers for survival, and this is the reason why this firm was selected. Over fifty types of technical programmes have been developed by this firm and, recently, these have been increasingly tailored to customers' unique demands.

According to ILMIA,[11] it is essential for TVET providers to enhance the quality of their programmes in order to meet the demand for 1.3 million additional TVET workers expected in 2020. Currently, there are more than 500 TVET institutions (private and public) in Malaysia, but some of these are offering similar programmes with varying degrees of quality. The firm's initiative since 2017 to operate in accordance with MS ISO 9001: 2015 – Quality Management Systems shows that the management is striving to achieve a competitive advantage in this market.

We therefore believe that a survey of unit managers engagement with their unit's bootlegging activities would provide us with a broad view that would enable us to explain our research questions in detail from their perspective. We received the list of names of participants from the Human Resources Department and decided that only permanent employees with at least two years' working experience in this organization should be

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[11] The Institute of Labour Market Information and Analysis that operated under The Ministry of Human Resources responsible for analysis of labour market trends and emerging human capital issues which will contribute to better human capital planning and more effective formulation of labour market policies. https://www.ilmia.gov.my/index.php/en/research-publication/research

included. We excluded provisional managers as we assumed that they still lacked experience in managing day-to-day business operations and would thus be unable to provide us with accurate data. Besides new innovation initiatives that have recently been developed via bootlegging approaches, we also asked the unit managers about resource availability, initiative outcomes and their unit's performance over the preceding three years.

The study follows common procedures reported in the innovation literature (Melton and Hartline, 2010; Sethi, Iqbal and Sethi, 2012; Storey and Larbig, 2018). Data collection was conducted in two phases: first; a face-to-face survey of 62 unit managers to secure a more precise understanding of the research context and boundaries; second, emailing of the questionnaires to the remaining participants. This allowed them to respond to the questionnaire at their own convenience, allowing the opportunity for free and truthful responses without pressure, since we asked them not to provide any identification when returning the questionnaire.

We pretested the scale with selected unit managers to ensure the validity of the constructs; the questionnaires were also presented to the representative of the firm who had been assigned to assist with this research activity. This was to identify whether the items might confuse participants or not. In addition, before the final version of the questionnaire was distributed to all key informants we reworded items to minimize cross-cultural issues, to use common business terminology and to remove ambiguities, taking into account the level of the participants (Storey and Larbig, 2018).

To maximize the response rate, we included a hand-signed cover letter from management with the questionnaire, and emailed this together with an executive summary that clearly explained the purpose of the study. There were no right, or wrong, answers and we

promised strict confidentiality to minimize social desirability bias, while also expressing a willingness to share the study result. We sent a reminder with another copy of the questionnaire to those who had not responded after two weeks. We received 169 usable responses, yielding a 73% response rate.

Table 4.2: Sample Characteristics

Level Participant	Service Tenure		Age		Education		Gender	
Unit Manager	≤ 5 Years	15.0%	26 ≤ 35 Years	12.1%	Diploma	24.3%	Male	77.9%
	> 5 ≤ 10 Years	30.7%	>35 ≤ 45 Years	39.3%	Undergraduate	53.6%	Female	2.1%
	> 10 Years	54.3%	>45 ≤ 60 Years	48.6%	Postgraduate	20.7%		
					Other	2.0%		

4.4.8. Assessment of common method bias

As mentioned earlier, our main informants were unit managers of 230 business units throughout the country. This potentially risks common method bias in the data collection. Sources of common method bias are (1) the common rater effect, where data on different variables are collected from similar informants, (2) item characteristic effects, where items presented to respondents produce bias in the observed relationships, (3) item context effects, where bias from any influence or interpretation arises from an item solely because of its relation to the other items, (4) measurement context effects, where bias is produced from the context in which the measures are obtained, for example when collecting data at the same point in time and thus inflating or deflating the relationships among constructs (Podsakoff *et al.*, 2003).

Once the method biases that were likely to occur were identified, based on Podsakoff *et al.* (2003), we developed the procedures to minimize their impact, utilizing statistical tests such as Harman's single-factor test to control the method biases.

Procedural Controls – First, although this study used data gathered from the same rater, prior to this study, data from multilevel informants were obtained via case study investigation and were cross-validated with archival data. We obtained the same information from different key informants, for example, senior managers and employees, who however, were excluded in this study context. We conducted face-to-face interviews to capture in-depth knowledge about bootlegging phenomena and this guided us in developing new measures of the predictor and criterion variables from different sources.

This helped us to retrieve and eliminate common rater bias from the questions, such as consistency motifs, social desirability tendencies, and transient mood states, etc. (Podsakoff *et al.*, 2003). We illustrated appealing cover stories to secure a more precise understanding of the research context and boundary, and feedback allowed us to provide counterbalancing questions to improve scale items such as to (a) define ambiguous or unfamiliar terms; (b) avoid vague concepts and provide examples when such concepts must be used; (c) keep questions simple, specific and concise; (d) drop double-barrelled questions; (e) decompose questions relating to more than one possibility into simpler, more focused questions; and (f) avoid complicated syntax (Podsakoff *et al.*, 2003). Second, different methodological techniques were used, such as different response formats, including semantic differentials, and different forms of Likert scale (e.g. seven- and five-point scales) to measure predictor and criterion variables (Podsakoff *et al.*, 2003).

Finally, we protected informant anonymity in that participants were not asked to provide their identification on the questionnaires, allowing them to respond independently and honestly without pressure in the knowledge that there were no right, or wrong, answers (Podsakoff *et al.*, 2003). These procedures reduced informant's evaluation apprehension and made them less likely to edit their responses to be more socially desirable, lenient,

acquiescent and consistent with how they thought the researcher wanted them to respond (Podsakoff *et al.*, 2003).

Statistical Tests - Harman's single-factor test was performed to assess common method bias (CMB). We loaded all items into exploratory factor analysis with a nonrotated solution and found that the first factor does not explain more than 50% of the variance (i.e., it accounts for 23.74% of the variance in the data). This means that common method bias is not an issue in this study (Podsakoff *et al.*, 2003).

4.5. Analysis and Results

We used partial least squares (PLS) from SmartPLS v3.0 (Ringle *et al.*, 2015) to estimate the measurement and the structural model with a bootstrapping procedure of 500 resamples to generate t-values (Tenenhaus *et al.*, 2005). PLS path analysis is suitable for complex relationship models, where there are a large number of manifest variables, and for testing moderating hypotheses (Hair, Ringle and Sarstedt, 2013). In fact, the use of PLS structural equation modelling (PLS-SEM) in research does not require multivariate normal data, can accommodate the use of formative indicators, and is more suitable for small samples (Hair, Ringle and Sarstedt, 2013). It is more appealing when the research objective focuses on prediction, and explains the variance of key target constructs by different explanatory constructs (Hair *et al.*, 2012).

4.5.1. Measurement model

Prior to structural model testing, it is important for us to test the reliability, convergent validity and discriminate validity of the measurement model to establish valid constructs. We conducted exploratory factor analyses on all items in the study, removing the items that failed to achieve a loading of .5 on a factor, or where an item loaded onto more than one factor. Both indicators, Cronbach's Alpha and Reflective Indicator Loading, showed

high reliability (Hulland, 1999; Hair, Ringle and Sarstedt, 2011). For all constructs, the Cronbach's alpha values exceeded the recommended minimum of 0.70, whereas the standardized loadings were all above .6. Correlations between all latent variables are shown in Table 4.3. Convergent Reliability was assessed by using Average Variance Extracted (AVE), in which each construct was greater than the squared latent factor correlations between pairs of constructs (Fornell and Larcker, 1981). Composite Reliability (CR), meanwhile, ranged from .84 to .96, showing adequate internal consistency (Gefen, Straub and Boudreau, 2000). We also measured discriminant validity, i.e. whether each construct shared more variance with its measures than with other constructs in the model (Fornell and Larcker, 1981), and confirmed that no item had a higher cross-loading on another construct than its loading on its intended construct. The measurement model assessment is shown in Table 4.3.

Table 4.3: Latent Variable Correlation

	Latent Variables	1	2	3	4	5	6	7	8	9	10	11
1	Innovative Success											
2	Adverse Career Effects	-.06										
3	Unauthorized Success	.256**	.272**									
4	Reworking Rejected Success	.386**	-.02	.414**								
5	Unauthorized Initiatives	.15	.204**	.522**	.301**							
6	Reworking Rejected Success	.385**	-.175*	.239**	.397**	.209**						
7	Internal Bricolage	.473**	-.08	.267**	.258**	.14	.473**					
8	External Resources	.306**	-.06	.208**	.220**	.09	.298**	.374**				
9	Strategic Autonomy	.224**	.08	.223**	.14	.409**	.155*	.210**	-.01			
10	Transformational Leadership	.194*	-.563**	-.165*	.152*	-.09	.251**	.06	.13	.02		
11	Coalition	.13	.12	.262**	.15	.234**	.262**	.12	.268**	.	.09	
	Mean (std Dev)	1.6 (0.3)	2.7 (1.2)	4.5 (0.9)	1.5 (0.4)	1.5 (0.4)	1.0 (0.2)	1.3 (0.2)	1.3 (0.2)	1.7 (0.4)	5.4 (1.1)	1.8 (0.9)

Note *. P < .05;   **. P < .01   N - 169

4.5.2. Structural model

We began to assess the structural model by checking whether our model has an issue with multicollinearity. The results revealed that the inner variance inflation factor (VIF) of all latent variables was less than 2, meaning that our model does not exhibit multicollinearity

(Hair, Ringle and Sarstedt, 2013). Two models were tested in the study. We first examined the direct effect model, in which we assessed the significance and relevance of the relationship that links two constructs with a single arrow between them. Second, we included moderating terms in our model. As mentioned earlier, we used a bootstrapping procedure with 500 resamples. Next, we checked the model's level of R^2 to predict the model's accuracy and effect size ($f - sq$) and to measure how strongly exogenous constructs contribute to explain the endogenous constructs, and thus the model's predictive relevance, Q^2.

Table 4.4: Partial Least Squares Results

PATH	MODEL 1 Path Coefficient (T-Value)	MODEL 2 Path Coefficient (T-Value)	HYPOTHESES
DIRECT RELATIONSHIP			
Coalition -> Reworked success	-.01 (0.15)	-.03 (0.39)	
Coalition -> Unauthorized _Success	.11 (1.71) *	.11 (1.81) *	
External Resources -> Reworked success	.07 (0.71)	.06 (0.59)	
External Resources -> Unauthorized _Success	.09 (0.77)	.13 (1.90) *	
Internal Bricolage -> Reworked success	.10 (0.81)	.12 (1.11)	
Internal Bricolage -> Unauthorized _Success	.20 (2.19) *	.16 (1.75) *	
Reworked initiatives -> Reworked success	.31 (3.23) *	.30 (3.04) *	
Reworked success -> Innovative Success	.27 (3.21) *	.26 (3.30) *	H4 (a) Accepted
Reworked success -> Adverse Career Effect	-.02 (0.23)	-.02 (0.43)	H5 (a) Rejected
Size of Unit -> Innovative Success	.02 (0.27)	.02 (0.37)	
Size of Unit -> Adverse Career Effect	.03 (0.34)	.04 (0.36)	
Strategic Autonomy -> Innovative Success	.18 (2.10) *	.18 (1.96) *	
Transformational Leadership -> Adverse Career Effect	-.55 (8.22) *	-.53 (7.44) *	
Unauthorized Initiatives -> Reworked success	.22 (2.32) *	.24 (3.28) *	
Unauthorized Initiatives -> Unauthorized _Success	.44 (6.59) *	.45 (6.47) *	
Unauthorized _Success -> Innovative Success	.18(2.11) *	.17 (2.19) *	H4 (a) accepted
Unauthorized _Success -> Adverse Career Effect	17 (2.46) *	.20 (3.08) *	H5 (a) Accepted
INTERACTION			

Coalition * Unauthorized Initiatives -> Unauthorized _Success	-.17 (3.39) *	H1(a) Rejected
Coalition * Reworked initiatives -> Reworked success	.12 (1.06)	H1(b) Rejected
Internal Bricolage * Unauthorized Initiatives -> Unauthorized _Success	.23 (3.40) *	H2(a) Accepted
Internal Bricolage * Reworked initiatives -> Reworked success	.00 (0.81)	H2(b) Rejected
Ext. Resources * Unauthorized Initiatives -> Unauthorized _Success	-.08 (1.03)	H3 (a) Rejected
Ext. Resources * Reworked initiatives -> Reworked success	.13 (0.72)	H3(b) Rejected
Strategic Autonomy * Reworked success -> Innovative Success	.13 (2.40) *	H4(b) Accepted
Strategic Autonomy * Unauthorized Success -> Innovative Success	.10 (0.83)	H4(b) Rejected
Transformational Leader * Reworked success -> Adverse Career Effect	-.09 (1.30) [t]	H5(b) Accepted
Transformational Leader * Unauthorized success -> Adverse Career Effect	-.15 (1.92) [*]	H5(b) Accepted

VARIANCE EXPLAINED	R2	R2	
Adverse negative career	0.37	0.42	
Unit Innovative success	0.21	0.28	
Reworked success	0.23	0.30	
Unauthorized Success	0.34	0.46	

*Path significant at p < .05, t significant at 10% level (one-tailed)

4.5.3. Direct Effects model

The results confirmed that authorized (β =.44) and reworked bootlegging initiatives (β = .31) had statistically significant levels of success (defined as management acceptance and adoption of these initiatives). In addition to this, we also estimated the relationship between the levels of success experienced by unauthorized and reworked initiatives (β = .24), with the results indicating that the initiatives that had commenced without being proposed to the management first could also be reworked then accepted and adopted by the management.

It is important to distinguish between different kinds of bootlegging success, i.e. the success of unauthorized projects as opposed to the success of reworked projects, because

this extends our knowledge of what initiatives are more likely to be accepted by management, ultimately. The bootleggers presented before the management about the success of the initiatives and how the initiatives have been proven to benefit the organization. We did not hypothesize the influence of antecedents, however, since this study is focusing more on the factors moderating bootlegging success: i.e. management acceptance and adoption of bootlegging initiatives and the impacts on unit and individual performance.

Data in table 4.4 supports both hypotheses H4 (a) and H5 (a), namely that bootlegging success has a positive relationship with units' innovative performance (β = .26, $P < .05$ for unauthorized projects and β = .26, $P < .05$ for reworked ones). The success of unauthorized bootlegging projects also has a direct impact on individual adverse career effects (β = .20, $P < .05$), proving that individuals with successful bootlegging initiatives tend to experience an adverse impact on their careers. The study did not find direct relationship between the success of reworked bootlegging initiatives and individual adverse career effects, however.

4.5.4. Moderated model

As shown in table 4.4, the model explained, respectively, 42%, 28%, 30% and 46% of the variance in adverse negative career effects, unit innovative success, reworked initiatives' success, and unauthorized initiatives' success. We accounted for five moderating terms in this conceptual model, plotting all their relationships to help understand this moderating effect (see Figure 4.2 until 4.5). First, we predicted that unit members who built higher levels of coalition would experience more success with their bootlegging initiatives. The results, however, reveal that the coalition building, whether internal or external, does not help bootlegging initiatives to get adopted and accepted by

the management. Coalition building is not associated with bootlegging success, either for unauthorized initiatives or for reworked ones. In fact, with unauthorized initiatives, coalition building was shown to have a significantly negative relationship with bootlegging success ($\beta = -.17$, $P < .05$). With reworked initiatives, meanwhile, coalition building had a non-significant relationship with success. This proves that the interaction of coalition and bootlegging initiatives is not predictor of the success of bootlegging initiatives. We visualized the regression slope coefficients in figure 4.2 to manifest the effect of coalition building on the success of unauthorized initiatives. Therefore H1 (a) (b) are rejected.

Second, H2 (a) predicted that internal bricolage has a positive influence on bootlegging success. The results indeed indicated a significant positive relationship between unauthorized initiatives and success ($\beta = .23$, $P < .05$). As shown in figure 4.3, this suggests that the interaction effect of internal bricolage in model two is a strong predictor of the success of unauthorized initiatives. H2 (a) is thus supported. On the other hand, when the interaction between internal bricolage and the success of reworked initiatives was tested, no statistical relationship was found. Therefore H2 (b) is rejected.

Third, we hypothesized in H3 (a) and (b) that external resources would be linked to a higher propensity for bootlegging success. The results, however, show that external resources have only small effect on the success of bootlegging initiatives ($\beta = -.08$ for unauthorized initiatives and $\beta = .13$ for reworked ones). This shows that, even when high levels of external resources are used during the bootlegging process, the initiatives are no more likely to be adopted and accepted by the management. Therefore, the results fail to support the hypotheses.

Fourth, we predicted that strategic autonomy would strengthen the relationship between bootlegging success and unit innovative success. The results indicate a positive relationship between the success of unauthorized bootlegging projects and unit innovative success ($\beta = .13$, $P < .05$) when the unit had higher strategic autonomy. Therefore, H4 (b) is supported. As visualized in figure 4.4, when the level of strategic autonomy is higher, the effect of the success of reworked bootlegging projects on unit innovativeness is significantly higher, suggesting that strategic autonomy has an empowering effect on the relationship between reworking projects' success and unit innovative success.

Finally, H5 (b) is supported. In the direct effect model, bootlegging success was found to have a positive relationship with adverse career effects. In h5(b), however, we predicted that transformational leadership could help to reduce adverse career effects for individuals after the bootlegging initiatives had been successfully adopted and accepted by the management. The data in table 4.4 manifests that when the interaction term between transformational leadership and unauthorized success was created and tested, the relationship between bootlegging success, unauthorized success and adverse career effect was negative ($\beta = - .15$, $P < .05$), proving that a higher level of transformational leadership can mitigate adverse career effects. We visualized the regression slope coefficients in figure 4.5 to demonstrate the effect of transformational leadership on the adverse career consequences of the success of unauthorized bootlegging projects.
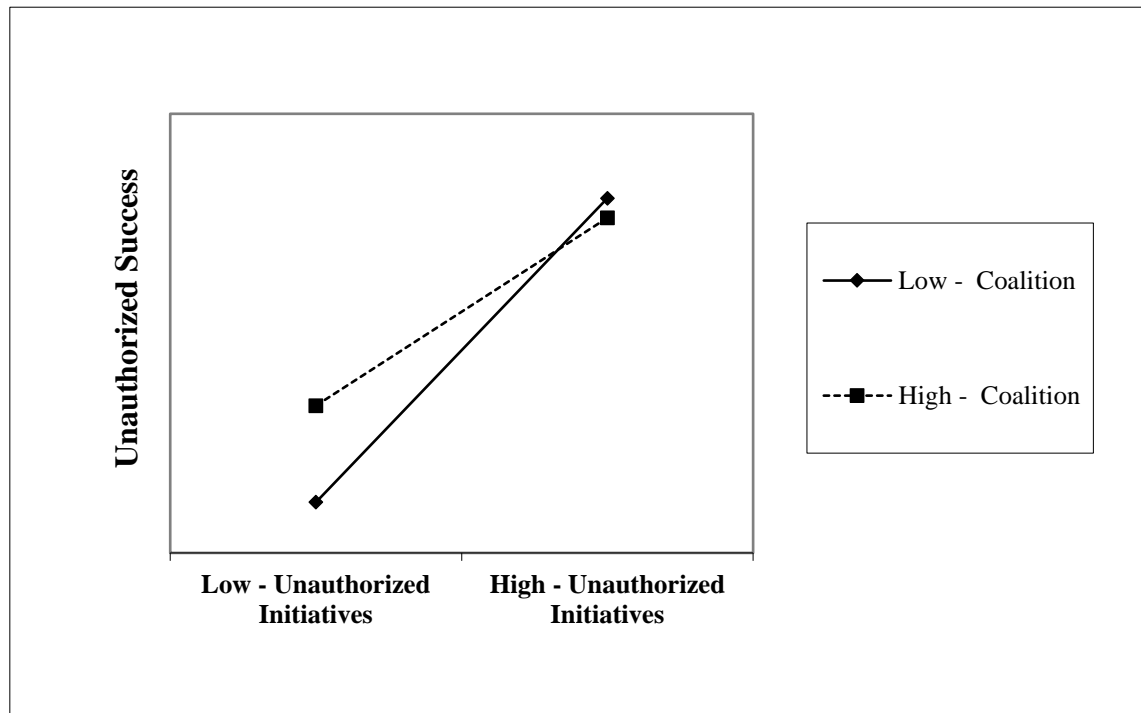
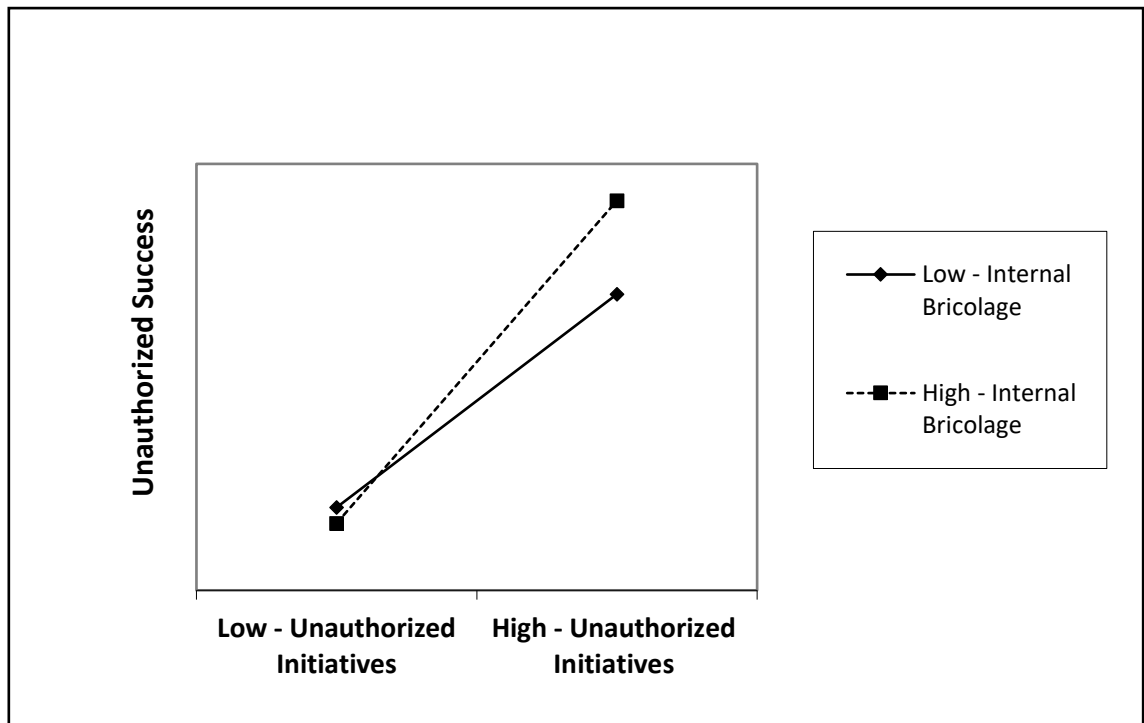Figure 4.2: Moderating effect of coalition building

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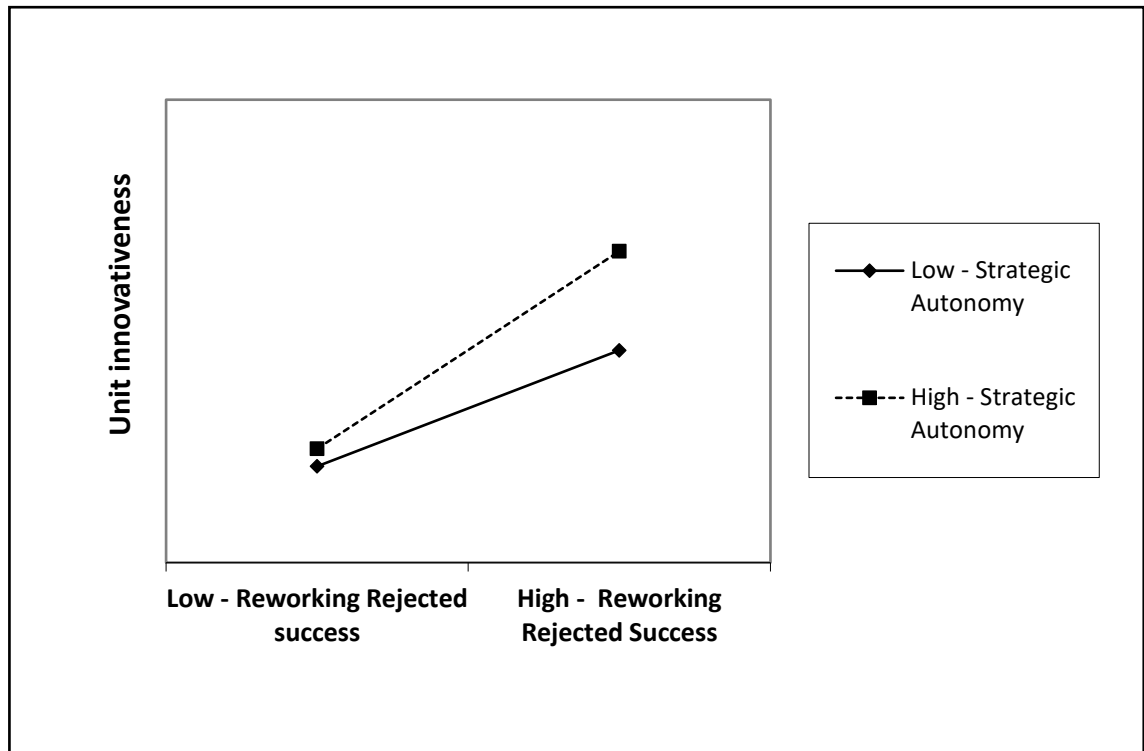Figure 4.3: Moderating effect of internal bricolage

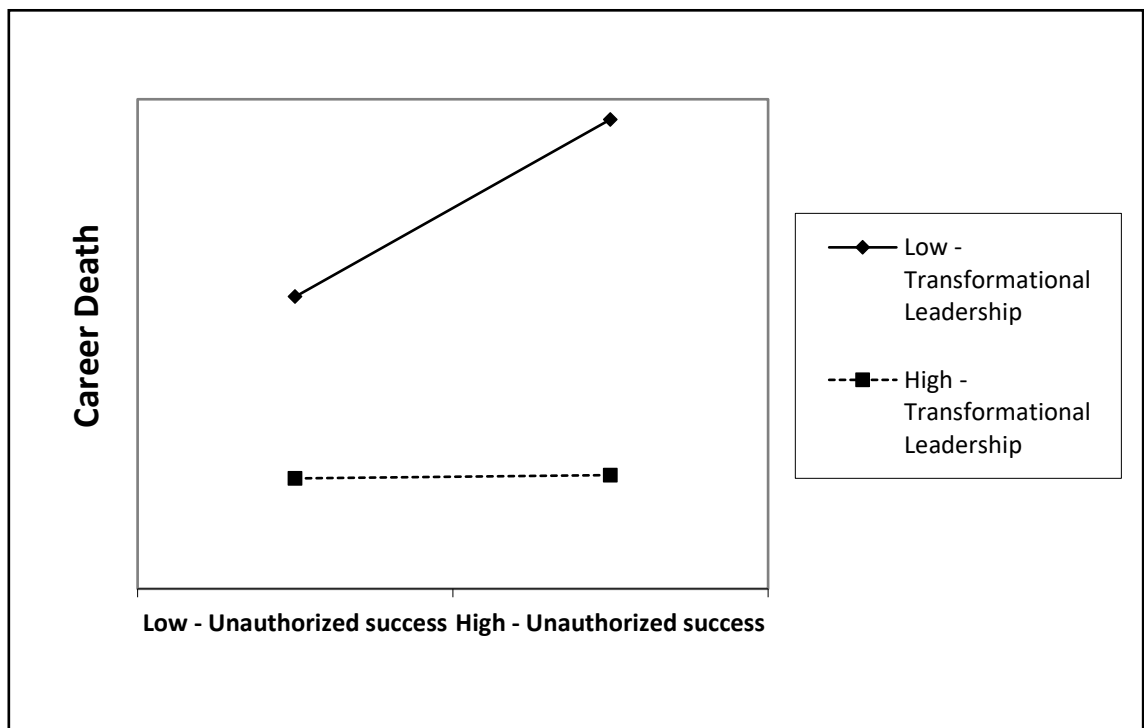Figure 4.4: Moderating effect of strategic autonomy

Figure 4.5: Moderating effect of transformational leadership

4.6. Discussion

4.6.1. Theoretical implications

This research builds on the assertion that both unauthorized and reworked bootlegging initiatives are a mechanism for a firm to enhance its capability to stimulate service innovation (Criscuolo *et al.*, 2014; Ostrom *et al.*, 2015; Storey *et al.*, 2016). Bootlegging initiatives are conducted without management knowledge, authorization or support. This research makes a number of contributions to strategy and innovation theory.

First, whilst previous research has separately identified unauthorized (Augsdorfer, 2005) and reworked initiatives (Mainemelis, 2010) as types of bootlegging, this research is the first to distinguish between these theoretically and empirically. The analysis shows that these are distinct bootlegging activities and that they work in different ways, and have different levels of success, and thus it is wrong to treat them as a single concept.

The current study empirically shows the extent to which the bootlegging initiatives can eventually be accepted and adopted by the management. Previous research has not examined how management come to accept bootlegging initiatives, after the bootleggers have bypassed management's formal framework. We show that, having pursued initiatives directly themselves without management acknowledgement, unit members bring them to the attention of management if they can demonstrate that they can be successfully implemented (Masoudnia and Szwejczewski, 2012). By granting legitimation (Bunduchi, 2017), and allowing the unauthorized success to develop further demonstrates a high level of strategic-decision flexibility on the part of management. Over time, this could be adopted by organization members to deliver positive effects for unit innovativeness (Akgün, Keskin and Byrne, 2012).

Second, this research develops a more fine-grained understanding of the mechanism through which bootlegging initiatives can be turned to bootlegging success; i.e. acceptance and adoption by management. We argued that coalition-building and resource-seeking strategies would assist unit managers and member in convincing senior managers to accept their bootlegged ideas. Gaining management recognition is important because it marks the point at which the initiative has acquired legitimacy and thus access to formal resources, enhancing the chances that the project will ultimately be successfully adopted (Kannan-Narasimhan, 2014; Bunduchi, 2017). Management and marketing scholars recognize that both intra- and interorganizational coalition building is a critical success factor for service innovation, new service development and service design (Czarnitzki and Thorwarth, 2012; Santos-Vijande, López-Sánchez and Rudd, 2016; Storey *et al.*, 2016).

Surprisingly, however, our results indicate that coalition building has a negative moderating effect on the success of unauthorized bootlegging initiatives; in other words the presence of coalitions makes unauthorized initiatives less likely to be successful. It may be the case that by forming a coalition unit members risk revealing their hand to management. If management get to hear of the bootlegging activity, before the bootlegger is ready to reveal it, they may be forced to abandon the initiative. In addition, bootlegging initiatives inherently occur outside of the organization's formal framework and are implemented according to bootlegger's personal ideas. In that context, and since bootlegging initiatives do not have a standard operating procedure (SOP), there may be a higher risk of conflicts within the coalition engaged with the bootlegged project, increasing the risk of failure.

Management's acceptance and adoption of bootlegging initiatives is relatively high when internal bricolage strategies are deployed by bootleggers. This relationship has so far not

been uncovered in previous research. Bricolage has been shown to facilitate the identification of new opportunities (An *et al.*, 2017) and it is being recognized as a creative way to deliver competitive advantages for firms (Salunke, Weerawardena and McColl-Kennedy, 2013). The results demonstrate that unit member frequently made do, reused resources and recombined existing resources, to enable successful bootlegging initiatives. The more unit members are able to provide their own resources via internal bricolage, the more new ideas could be successfully developed for service innovation, new product development and process improvement. Engaging with bricolage activities reveals bootleggers to be creative and capable of develop new initiatives under resource constrained environments (Kannan-Narasimhan, 2014).

Again, surprisingly, our data does not support the above line of reasoning. Our empirical evidence shows that the way bootleggers tried to provide their own resources from external sources potentially undermines the chances of acceptance by management. Because bootlegging activities occur under the radar, they cannot benefit from formal or official understandings or agreements (MOA). Furthermore, external parties, for example government agencies (financial grant), financial institution (borrowing activity) and other corporate firms are not willing to finance such blurry projects (underground activity) that have highly uncertain outcomes. Obviously, they will refuse to get involved and invest their resources in activities that have no management authorization and support since there is a high probability of management intervening in the middle of the bootlegging process to curtail the project, as well as uncertainty as to who would bear any legal liability.

Third, this study advances our understanding of the impact of bootlegging success on unit innovative success. The results show that bootlegging success has a direct impact on unit innovative success. The existence of this strong relationship suggests that the

decentralization of decision making at unit level should be the management's first priority in delivering good quality service (Carbonell and Rodriguez Escudero, 2016) and helping the organization to attain competitive advantages (Storey *et al.*, 2016). Bootlegging enables the unit to rapidly solve firms' problems, identify future opportunities and able to align between firm's strategic planning and volatile environment.

This research also extends our understanding of the role of strategic autonomy as a factor that plays a significant role in unit innovative success. Previous studies have argued that strategic autonomy is an antecedent of bootlegging (Globocnik and Salomo, 2015) and motivates individuals to participate during service innovation (Cadwallader *et al.*, 2010). Strategic autonomy empowers individuals to make decisions about new products and service innovation. The results suggest that by granting autonomy management can encourage unit members to be more creative and innovative in exploring new opportunities, thus enhancing the bootlegger's ability to further elaborate and develop their ideas, and ultimately contributing to unit innovative success.

Finally, although individual initiatives and creativity are frequently shown to have an impact on firm's innovation performance (Bercovitz and Feldman, 2008; Gerke *et al.*, 2017), and these individuals thus receive management rewards and appreciation, our findings indicate that the more unit members engage with bootlegging initiatives, the more likely they are to experience adverse career effects. This is in line with our qualitative study result (chapter two), which revealed negative as well as positive effects on the careers of bootleggers', irrespective of whether their projects were successful or not. To the best of our knowledge, this research is the first to empirically investigate the effect of bootlegging initiatives on individual careers.

Generally, individual deviant behaviour has been viewed by management as being associated with negative consequences (Robinson and Bennett, 1995). In fact, the management might not be ready to accept how bootlegging initiatives have functioned in benefiting the organization. In the management's eyes, allowing individuals to bypass the management's formal procedures or framework unpunished would disrupt the organization's overall efficiency and effectiveness (Augsdorfer, 2005). The results also showed, however, that the adverse career effects of engagement with bootlegging can be reduced if senior managers exhibit a transformational leadership style. Leaders with a transformational leadership style are known to actively encourage employees' innovative work behaviour, and to be willing to help to develop employees' self-confidence, self-efficacy and self-esteem to attain higher performance (Bass and Avolio, 1990; Yukl, 1999; Newman *et al.*, 2018).

Transformational leaders provide favourable environments that support employees' creation of novel ideas and this makes them more open to show tolerance and flexibility when unit managers engage in bootlegging initiatives. In addition, the acceptance and adoption of those initiatives by management serves to motivate employees to continue to engage in service innovation (West and Bogers, 2014).

4.6.2. Managerial implications

This study provides several relevant implications for managers. First, managers should leverage bricolage strategies during the bootlegging process. We find that bootlegging initiatives that are developed by reusing or recombing whatever resources are at hand are more likely to be accepted and adopted by management. This is important for the long-term success of these initiatives because their legitimization gives access to official resources, which allow for further development.

The existing literature indicates that innovation activities in organizations often face challenges of scarce resources, since all projects compete for similar resources and management therefore normally has to appraise and prioritize between them. These formal processes, however, usually provide insufficient resources for managers, particularly when spontaneous ideas occur in the middle of the organizational planning period. Our study suggests that unit members could use bricolage activities to provide resources to develop their ideas under a bootlegging approach. The capabilities for making do with what the organization has at hand, improvising the development process accordingly, can lead to good enough solutions to develop initiatives sufficiently to demonstrate their viability and thus win formal management support.

Second, we reveal that granting strategic autonomy to managers to develop their own ideas has a positive impact on unit innovative success. This provides useful managerial insights in that it shows that while limiting manager autonomy and instituting close monitoring of their behaviour may prevent bootlegging, such actions may also impede all innovative behaviours. We suggest that management should provide these managers with a higher degree of job freedom to enable them to formulate decisions that fit with formal innovation process, thus creating a positive influence on innovative success.

Third, another notable finding is related to the impact of bootlegging success on individual careers. The literature indicates that senior management typically does not favour bootlegging activities, even when those initiatives are proven to benefit the organization. Our results, however, show that while there are indeed adverse consequences for the careers of employees who engage in bootlegging activities, these can be mitigated where senior managers exhibit transformational leadership behaviours. Since transformational leaders are more likely to share bootleggers' focus on the ultimate transformational benefit to the organization they are also more likely to be willing to turn

a blind eye to bootlegging initiatives. We suggest that senior management should be more tolerant and flexible towards bootleggers' self-initiatives. Managers should focus more on the positive outcomes for their organization when bootlegging initiatives are successful, rather than only on the negative implications of their method for organizational discipline. Bootlegging success needs to be more portrayed as a source of organizational change with the ability to improve on current innovation processes, particularly in terms of developing new ideas in areas that formal innovation structures cannot easily reach.

Fourth, this study provides implications for senior managers in organizations that are too reliant on formal frameworks that strongly emphasize normative enforcement. The literature indicates that bootlegging behaviour does not occur randomly; instead, it can be influenced by designing the organizational environment around employees' cognition and motivation (Globocnik and Salomo, 2015). In this study, we portray the manager engagement with two types of bootlegging approach: unauthorized initiatives and reworking initiatives.

The results show that both kinds of initiatives lead to eventual management acceptance and adoption. In other words, the management is willing to accept bootleg ideas as long as they are proven benefits for the organization. Unit managers who frequently engage with bootlegging initiatives have signalled that management barriers such as bureaucracy and tight control of resources influence their decision to undertake bootlegged projects. We suggest that if senior management is concerned about the negative impact of bootlegging on normative enforcement, the appropriate response would be, not tighter control, but providing more space within formal structures to conduct trial and error processes so that projects have an opportunity to prove their potential to benefit the organization before they are rejected.

4.6.3. Limitations and future research

Despite its contributions, this study has several limitations that should be borne in mind when interpreting the findings. First, many of the measures we collected were self-reported, and this approach may artificially inflate some of the relationships we found. Moreover, it might contribute to bias. We believe, however, that this approach is appropriate to be used in measuring bootlegging behaviours because those behaviours are not comprehensively observable by others, and the constructs require self-rating to reflect employees' beliefs and perceptions. Ideally, data from a second source, i.e. a second person in the organization or internal organizational data, would have provided additional evidence on the impact of bootlegging on unit and individual performance.

Second, this research was undertaken in a single Malaysian organization. Existing research that investigates bootlegging activities has usually been conducted in Western companies. We have limited knowledge about the effects of bootlegging initiatives on organizational performance in different cultural contexts, however; both organizational and national. The adherence toward management normative enforcement is contingent on both the organizational and the country cultures. Thus, to provide a better understanding of the bootlegging phenomenon, further research should be conducted on a range of organizations in different regions.

Another potential area for future research is to understand more clearly why coalition building did not strengthen the chances of bootlegging processes having ultimate success (i.e. achieving management acceptance and adoption). In fact, our results suggested that cross-functional collaboration and alliance with external parties actually reduces the success of bootlegging. It would be interesting to investigate the extent to which bootlegging processes potentially affects the existing unit's collaboration. Future research

may consider coalition building as an outcome of bootlegging initiatives. The rationale underlying these interactions can easily be extended to other research domains, such as employee role stress and turnover intentions.

Basically, coalition building enhances the innovation process (De Luca and Atuahene-Gima, 2007) and companies such as Toyota have long acknowledged that interorganizational and intraorganizational collaboration acts as a problem-solving mechanism. Further, coalition building integrates the leaders and members of units to share the knowledge more widely and more effectively between each other (Sobek, Liker and Ward, 1998). Because there is an extensive amount of knowledge of the new service innovation process, it can be properly managed if special knowledge integration mechanisms are developed.

Coalition building in the context of bootlegging activities and other positive deviant processes, such as constructive deviance, has not received sufficient research attention, however. To the best of our knowledge, our study is the first to study this topic, even though many scholars in the management, marketing and innovation domains have recognized the benefits that organizations may reap from collaboration.

CHAPTER FIVE - CONCLUSION

5.1. Introduction

This thesis provides a comprehensive analysis of the emergence of the bootlegging phenomenon at a service organization in Malaysia. We have examined the antecedent factors, the bootlegging strategy and its impact on both unit and individual performance. We have also analysed whether constructive deviance—the voluntary behaviour that bends organizational norm and rules—precedes unit members' bootlegging initiatives. We put emphasis on the contagion of constructive deviance behaviour from leaders to followers, acknowledging how deviant behaviours within a positive boundary can be constructively developed and followed by employees.

It has been well acknowledged that bootlegging initiatives play an important role in contributing to the development of new products, as well as incremental product and process improvement (Augsdorfer, 2005, 2008; Masoudnia & Szwejczewski, 2012). This thesis is of importance to senior managements, unit/ functional managers and employees, who are all involved in driving innovation in a service organization. This thesis takes a three paper approach. In this chapter, we will outline the theoretical justification for the research and detail the research context. Each paper is briefly summarized as follows.

5.2. Theoretical and Managerial Implications

5.2.1. *Multiple dimensions of bootlegging initiatives in a service organization: an exploration*

This research builds on the assertion that bootlegging initiatives are a bottom-up approach that can foster innovation in service firms, for example new service development, and service and process improvement. Through seven case studies in a single organization we addressed the 'how', 'why' and 'what' questions in investigating the antecedents,

strategies and consequences of bootlegging initiatives. In doing so, this research makes a number of contributions to theory.

First, this research answers a call for more research into the factors behind the emergence of bootlegging initiatives (Mainemelis, 2010; Globocnik and Salomo, 2015), extending our understanding of the role of senior managers and bootleggers themselves in undertaking bootlegging. Senior management factors have not been specifically linked to the emergence of bootlegging activities, despite being recognized as levers for driving and providing strategic directions for company's innovation (Stock *et al*., 2017). From the methodological point of view, this thesis builds on the previous literature that has stressed the importance of organizational factors such as bureaucracy, tight management control, and resource inadequacy as antecedents of bootlegging.

The results showed that the level of normative enforcement of the organization's rules and strategies by the next level of management is a prime antecedent of bootlegging behaviour. Senior managers' risk aversion and the emphasis on rules and regulations are two factors that we found as contributing to bootlegging activities. Their avoidance of risk shows that they were not ready to take responsibility if the initiative failed, even though new things could be explored by the staff that could benefit the organization.

Since senior managers are responsible for developing strategies to support the success of new service offerings, this study shows them why bootlegging occurs in service organizations. It is therefore necessary for senior managers to build flexible service systems that can tolerate bootlegging outcomes and effectively respond to dynamic environments (Ostrom *et al.*, 2015). This helps employees to maintain the relationship with customers and facilitates the development of new services (Beatty *et al.*, 2016; Stock, Zacharias and Schnellbaecher, 2017).

On the other hand, bootleggers' entrepreneurial orientation, for example, their energy and hard work, creativity, innovativeness, idealism and lack of emphasis on routines, supports the assertion that individual factors also contribute to the emergence of bootlegging initiatives (Globocnik and Salomo, 2015). Individuals have an important role, particularly in doing things in a radically better way by looking for indigenous sources of change.

This thesis shows that there are two types of initiative carried out by bootleggers: unauthorized initiatives and reworked initiatives. Unauthorized initiatives refer to initiatives that have been initiated by unit members without being proposed or presented to management (Augsdorfer, 2005). Whereas reworked initiatives refer to initiatives that have continued to be pursued by unit members after the initial ideas were officially rejected by management.

The findings of this research also highlight the strategies of (1) coalition building, (2) resource seeking and (3) legitimacy seeking as being used by bootleggers to ensure that these two kinds of bootlegging activity are successfully accepted and adopted by the management. Existing scholars have failed to study the strategies utilized in the realization of bootlegging ideas. Although, bootlegging activities are argued to benefit many organizations (Augsdorfer, 2005, 2008; Masoudnia and Szwejczewski, 2012; Criscuolo *et al.*, 2014), the findings indicate that there is no guarantee these strategies can ensure that the bootlegging initiative is accepted by the management.

Although, some of them were subsequently successfully accepted and granted official approval, but without these strategy the initiatives could be stopped by the management in the middle of the process. The results also suggest that the impact of participation in bootlegging on the bootleggers' careers could be either positive or negative, and even successful initiatives can be detrimental to a bootlegger. Unit managers, for example,

received a mix of promotions and rewards, on the one hand, and transfers and warnings as to future conduct on the other. Our investigation of the antecedents, strategies and individual-level outcomes of bootlegging initiatives contributes to the literature on deviant workplace behaviours literature that portray as organization's sources of innovation which is usually overlooked and required managerial consideration (Umphress and Bingham, 2011).

In sum, senior managers are suggested to play an important role in balancing bootlegging initiatives with the current management goals and environment (Anderson, Potočnik and Zhou, 2014). Rewarding the successful ones and tolerating the failures would signal the organization's emphasis on innovation, even if this requires illegitimate means (Dougherty and Heller, 1994). This thesis also provides new evidence to senior management about the characteristics of bootleggers, thus giving them the opportunity to enhance individual innovative behaviour and ultimately the organization's overall ability to innovate in the future (Lee, Mazzei and Kim, 2018). Bootleggers deserve organizational rewards and recognition since these people are willing to sacrifice themselves for the organization, facing the risk of punishment to bring about change for the organization (Malik, Butt and Choi, 2015).

5.2.2. The role of constructive deviance in stimulating bootlegging initiatives at the unit level

This study is the first to examine how deviant behaviour potentially activates others' norm-violating and self-initiative behaviour, through a contagion model, to drive service innovation performance and find innovative ways to solve challenges (Galperin, 2012). The study was primarily aimed to answer the following questions: (1) how can constructive deviance be transferred from leaders to followers? (2) To what extent can units leaders who exhibit constructive deviance motivate their unit's team members to

engage with bootlegging behaviour? (3) To what extent does senior managers' and employees' possession of constructive deviance traits reinforce team members' bootlegging behaviour?

This chapter is the first to integrate theories of behaviour (emotional) contagion and social identity to show that constructive deviance has a cascading effect on followers. Our evidence reports that leaders with constructive deviance can influence their employees to act with similar behaviour, and thus proves that constructive deviance can be disseminated from leaders to followers. The contagion of constructive deviance can be deployed from leaders to the employees at two levels in the organizational hierarchy: (1) from senior managers to unit managers, and then (2) cascading down from unit managers to frontline employees.

We contribute to the literature by enhancing the understanding of how leaders can develop and foster their followers' innovation abilities by going beyond their boundaries to provide high-quality service experiences and to sustain customers' loyalty (Beatty *et al.*, 2016; Yoo and Arnold, 2016). Further, the present study extends prior research by uncovering the different mechanisms through which leaders who exhibit constructive deviance promote unit members' exploratory and exploitative innovations via bootlegging initiatives. Further, when leaders make their followers aware of the expectations and shared values of the firm by departing from dysfunctional organizational policies or procedures to solve a problem, breaking rules with the aim of being more effective and taking shortcuts in order to perform the job more efficiently, followers will have a clear understanding of their leader's vision of an excellent customer experience (Wilder, Collier and Barnes, 2014).

Second, according to Edmondson and Nembhard (2009), team dynamics and coordination could be impeded if it is frequently faced with front-end innovation tension; i.e. unclear beginnings, uncertain parameters, multiple goals and dynamic decisions (Khurana and Rosenthal, 1998). This means that it is critical to know whether leaders who exhibit constructive deviance are able to motivate team members to engage with bootlegging initiatives to cope with these innovation tensions (Liu, Chen and Tao, 2015). This because a unit's ability to cope with these tensions has been identified as an important source of innovation (Leenders, Van Engelen and Kratzer, 2007).

Scholars are increasingly calling for research to examine what factors can drive and help unit team members to think "outside the box" when exploring business and technological opportunities that they may want to pursue (Andriopoulos *et al.*, 2018). This research contributes to the bootlegging and innovation theory by extending the boundary of bootlegging initiatives that are usually studied at individual level to the unit level. Unit teams require high levels of freedom and independence to search for new directions for the company, and we demonstrate how bootlegging activities at unit level be as the mechanisms to cope with market rising by doing product modifications (De Brentani and Reid, 2012) and technological changes (Garcia and Calantone, 2002).

The results demonstrate that unit leaders who possessed constructive deviance traits enhanced unit members' motivation to engage with bootlegging initiatives. On the other hand, intolerance and inflexibility towards employees' ideas at the front-end of the innovation process impedes employees' creativity to explore new opportunities; new service innovation development.

This chapter therefore contributes to the bootlegging literature by revealing constructive deviance to be an antecedent of bootlegging at the unit level. Via bootlegging initiatives,

unit members have alternative ways to translate and develop ideas by pushing their boundaries and taking the risk to break away from existing paradigms in their pursuit of creativity (Poskela and Martinsuo, 2009; Eling, Griffin and Langerak, 2014).

Third, our aim was also to understand whether senior leaders' and employees' constructive deviance reinforces bootlegging activities at the unit level. We assume that unit members that usually engage with bootlegging initiatives aggressively play their roles to maintain high standards of service quality (Santos-vijande, López-sánchez and Rudd, 2016) and to promote customer's loyalty by establishing good relations with them (Wilder, Collier and Barnes, 2014; Beatty *et al.*, 2016). Therefore, this chapter shows whether the unit members' motivation to engage with bootlegging initiatives is enhanced by senior managers and/or employees also deploying such behaviour.

The evidence supports the argument that high levels of normative enforcement of the organization's rules and strategies by senior managers and/or employees high levels of adherence to the established management innovation framework reduces unit managers' ability to influence unit member to engage with bootlegging initiatives. In summary, even when unit managers exhibit a high level of constructive deviance, if they are to successfully motivate unit members to engage with bootlegging activities they must have received support from senior managers and employees who also overtly exhibit constructive deviance behaviour.

This research shows that unit managers' constructive deviance plays a critical role in fostering creativity and innovation in the organization. The study brings several fruitful understandings of the function of the unit managers operating at a key intersection between top management and employees lower in the organizational hierarchy. Vertically, unit managers act as followers and imitate senior managers in terms of how

they initiate and implement major organizational change. Simultaneously, however, they serve as important change agents as they show their followers (i.e. unit members) an alternative way of doing things. They can encourage employees to bend the organization's unpractical rules and motivate staff to work beyond their boundaries to benefit the organization. Horizontally, unit manager's constructive deviance plays a critical role in fostering unit level bootlegging initiatives. This further suggests that senior management must be open and flexible towards bootlegging initiatives.

5.2.3. Bootlegging success: the impact and moderating factors*

This chapter focuses on bootlegging success. It refers to bootlegging initiatives: both unauthorized and reworked initiatives that are eventually accepted and adopted by the management. It highlights how, even with bootlegged projects, senior managements' official acknowledgement and recognition, and the associated permission for further development remains vital for the ultimate success of innovation initiatives.

To date, however, we do not know how the management goes about sincerely and openly accepting and adopting bootlegged projects that had previously bypassed the management's formal development channels. Although, these bootlegging initiatives may have demonstrated benefits for the organization, as shown in chapter 2, this does not automatically translate to career advancement for the bootlegger themself. Individual deviant behaviour may still be viewed adversely by management, who typically associate it with negative consequences (Robinson and Bennett, 1995). In fact, management might not be ready to accept the way that bootlegging initiatives function to benefit the organization.

This research therefore aims are to investigate whether there are 'magic moves' or 'special touches' that have been utilized by unit managers to ensure that their bootlegging

initiatives 'survive' and can be truly accepted and adopted by the management, while at the same time reducing senior managements' dissatisfaction and mitigating any adverse career effects that might be experienced by the bootleggers.

This thesis contributes to the strategy, innovation and management literatures in several ways. The identification of distinct types of bootlegging initiatives—unauthorized and reworked initiatives—is the first contribution in this chapter. Previous research has not identified these as separate types of bootlegging. As Storey and Hull (2010) argued, however, a "one-size-fits-all" is no longer an appropriate way to approach service innovation; and this research affirms this by demonstrating that bootleggers work in different ways and that thus bootlegging should not be treated as a single concept.

The result show, however, that these two types of bootlegging both exhibit statistically significantly associations with ultimate project success. This shows that management will accept and adopt these initiatives if the benefits to the organization can be demonstrated. It also shows, however, that senior managers should have a broader view of the ways in which bootlegging can occur.

Secondly, this research develops a more fine-grained understanding of the mechanisms through which bootlegging initiatives can be turned to bootlegging success. Coalition building and resource-seeking activities by unit managers to provide their own resources have previously been shown to be successful strategies to convince senior management members to accept bootlegging initiatives' ideas. There is a wide consensus in the management and innovation literature that firms benefit from coalition building. It promotes coordination; sharing of risks, resources, and competencies; and the building of new knowledge is a key channel through which firms gain from collaborating in new

product and service development (Bodas Freitas and Fontana, 2018; Hemonnet-Goujot, Manceau and Abecassis-Moedas, 2019; Wen, Qualls and Zeng, 2020).

This study expands our knowledge about the extent to which bootleggers establish coalitions, whether internally or externally, for organizations' long-term competitive advantage. Bootlegging allows organization actors to explore new product and service development by extracting external knowledge and expertise.. Indeed, coalition building contributes to innovation performance (Hottenrott and Lopes-Bento, 2016). From an R&D perspective, more patents have been filed when firms from a variety of countries participate together in doing their research (Branstetter and Sakakibara, 2002; Czarnitzki, Ebersberger and Fier, 2007).

Surprisingly, however, our findings revealed that coalition building reduced the chances of unauthorized initiatives being accepted by management. There could be several reasons for this. First, coalition building comes at the cost of disclosure. It may be the case that by forming a coalition, bootleggers might have transferred both codified and tacit knowledge to the partner, thus potentially risking leakage to the management (Hottenrott and Lopes-Bentoyz, 2015). If the management gets to hear of the bootlegging activity before the bootleggers are ready to reveal it, they may be forced to abandon the initiative. Second, collaboration usually comes with liabilities and involves financial costs that will be sealed under formal contracts. Other parties may potentially avoid coalitions and collaborations that have no official terms due to the high risk to them if the contracts are not fulfilled. It is very costly if each party's responsibility is not clearly stated in case of contingencies (Hottenrott and Lopes-Bento, 2016).

Similarly, the literature has shown that more research attention needs to be paid to expand firms' resource portfolios, particularly when they experience resource constraints when

creating value (Sirmon *et al.*, 2011; Baker and Nelson, 2017). This research suggests to the management that bootlegging initiatives can help firms to create value by leveraging resource portfolios; offering alternative ways of acquiring resources or developing resources internally and externally (Salunke, Weerawardena and McColl-Kennedy, 2013; Witell *et al.*, 2017; De Massis *et al.*, 2018). The results indicate that when internal bricolage increases, so too do the chances of bootlegging initiatives being accepted and adopted by the management. This suggests that the more unit members are able to provide their own resources, by making do with whatever existing resources they have to hand, for example by reusing resources or recombining existing resources, the more new ideas for service innovation can be successfully developed.

Surprisingly, our empirical evidence also shows that external resource acquisition was not associated with a higher propensity for bootlegging initiatives to be accepted by the management. Because bootlegging activity occurs in secret, no formal or official understanding or agreement (MOA) can be established with external parties. Furthermore, external parties, for example, government agencies, financial institutions and other corporate firms are well known to have standard operating procedure (SOP) that prevent them from getting involved with activities or projects that has no management approval.

Thirdly, this chapter advances our understanding about the consequences of the management acceptance of bootlegging initiatives for units' innovative success and for individual career performance. This chapter is the first to examine this. Our findings indicate that even when bootlegged projects have been accepted by the management this does not promise a better career for bootleggers. In fact, the result show that the more unit members engage with bootlegging initiatives the more the unit member will experience adverse career effects, even when management has adopted those initiatives.

This demonstrates that management still finds it difficult to recognize the bootleggers' efforts, even when they have been shown to bring benefits to the organization. Individual adverse career effects can be reduced, however, when leaders with transformational leadership style exist in the organization. Specifically, our findings indicate that bootleggers can be recognized when transformational leader interact with unauthorized success, although this same effect is not evident with reworked success. This is because of the way unit managers keep the idea away from management eyes, since drawing it to the senior managers' attention in the first place could reduce senior management members' shock. Bootleggers revealed that one benefit of the success of bootlegging initiatives is that it can help make senior managers more tolerant, and flexible.

This result is in line with our findings in chapter two where more reward and appreciation could be gained by bootleggers who conducted unauthorized initiatives. Reworked initiatives, however, can create an unpleasant relationship between bootleggers and senior management members because senior manages realized that their unit managers had already ignored the order to stop working on the current ideas, causing more anger and resentment.

Even when initiatives have been proven to benefit the organization, senior managers are likely to have ignored this and pretended as if nothing has happened. Consequently, based on our report in chapter two, bootleggers are faced with hostile action from the management; for example, we were told that a bootlegger had been verbally warned and was being closely monitored and some of the bootleggers (unit managers) were dropped from the special task force team and transferred from the current workplace.

Finally, this chapter contributes to the body of knowledge by showing that both kinds of bootlegging initiative can have a positive impact on unit innovative success. In fact, this

impact can be strengthened if strategic autonomy is granted to the bootleggers. Senior management is therefore suggested to empower employees to have freedom in planning new product developments and service innovations.

Overall, this thesis uses a mixed method approach to examine three main ideas that focus on bootlegging initiatives that have been conducted in a service company in Malaysia. Bootlegging initiatives have been portrayed as predevelopment activities undertaken when faced with management barriers in order to protect those ideas from the "disapproving power in the organization". It refers to self-initiatives that follow a bottom-up process, occurring without official mandates but which nonetheless aim to benefit the organization. They are also considered to be source of organizational source of change since employees do things in a radical and ingenious way. Their implementation, however, is argued to disrupt management's formal innovation framework and bootleggers can be posited as people who risk negative outcomes and who could harm the organization. The rationale underlying these interactions can easily be extended to other research domains, such as employee roles and turnover intentions.

5.3. Limitations and Future Research

This study has made an important contribution to our understanding of the role of constructive deviance in stimulating units' bootlegging initiatives. However, the study has several limitations that lead to questions for future research.

Firstly, our paper in chapter 2 has emphasized bootlegging activities that emerged from the managerial level. It would be interesting in future to explore the emergence of bootlegging initiatives at the frontline employee level. Whereas bootlegging activities are easily engaged at managerial level because managers have freedom or autonomy, with specific allocation of resources as part of their role, this is not the case for frontline

employees. On the other hand, it is actually frontline employees who have the most direct contact with the realities of their organization's service quality and with customer needs, special requests and loyalty (Beatty *et al.*, 2016). Furthermore, it is well recognized that frontline employees have particular motivations and abilities to achieve sustainable competitive advantage, new product/service development; innovation, speed, and cost competitiveness for their organizations.

Another area for future research arises from the fact that the results of the current study have been retrieved from only a single organization and not from multiple organization from various industries. This restricts the ability to generalize from our results. For example, in this study we did not find much evidence for covert operation of 'reworked initiatives' and we did not consider the antecedents, moderating factors and bootlegging consequences from other organizations. Future research should therefore seek to identify bootlegging initiatives from multiple organizations irrespective of industries. In addition, we also suggest that future research should focus on the factors that act as barriers to bootlegging, particularly on the individual level, such as indebtedness, and at the managerial level, such as abusive supervision.

Secondly, the paper in chapter 3 is one of the first to investigate the process by which leaders' constructive deviance behaviour can empower follower behaviour. In this study, we tested the relationship by using a one-tailed test in one direction of interest, thus disregarding the possibility of a relationship in another direction. The contagion of constructive deviance, however, was only significant at the ten percent confident level, and this low explanatory power of constructive deviance contagion suggests that other factors may influence the transfer (or not) of constructive deviance behaviours between leaders and followers. More research is therefore needed to be able to generalize more reliably about this relationship. It is also necessary to figure out the outcomes of

bootlegging initiatives particularly in respect to unit and individual performance, as well as its moderating factors. Unit managers may experience a serious impact on their career development, including job termination, transferral or verbal warnings if they keep on pursuing bootlegging. While we showed that this was mitigated by the presence of senior managers with a transformational leadership style, additional research could help identify whether other leadership styles, such as charismatic leadership (Sy, Choi and Johnson, 2013) and organizational identification (Albert, Ashforth and Dutton, 2000), potentially also reduce negative consequences.

Besides that, further study should investigate 'how' bootlegging initiatives are eventually institutionalized, recognized and accepted by senior managers if they turn out to have proven benefit to the organization. In addition, since our research was cross-sectional in nature, collecting information on individuals' constructive deviance at a single point in time, it is not suitable for describing and analysing change, and this limits the ability to infer causality. Further research using longitudinal data and/or an experimental design could address these limitations. Longitudinal studies could focus on the leader–follower constructive deviance behaviour beyond one point in time, while also making it possible to track the development of the characteristics of a target participant (Shek and Liang, 2008).

Thirdly, the research presented in chapter 4 reported unit and individual performance based on the participants self-reporting and self-rating of others' beliefs and perceptions. We believed these approaches are not ideal for measuring bootlegging behaviours since these behaviours are not comprehensively observable by others, potentially leading to bias. Ideally, data from secondary sources should be provided as additional evidence. This paper also proved that coalition building did not influence senior management acceptance and adoption of bootlegging initiatives. In fact, cross functional collaboration

and external alliance with government bodies, agencies and private parties seems to reduce the success of bootlegging. This contrasts with the findings of other scholars, who have consistently recognized coalition building as a factor that enhances organizations' innovation processes (De Luca and Atuahene-Gima, 2007), new product or service development, problem-solving mechanisms and resource seeking. Further, the scholarship is clear that coalition building integrates the leaders and members of units to share knowledge widely and efficiently between each other (Sobek, Liker and Ward, 1998). It would be interesting, therefore, if future research were to investigate the potential effect of bootlegging processes on individual unit's collaboration or, in other words, to study 'coalition building skills' as an outcome of bootlegging initiatives.

Another potential area for future research is to focus on organizations from a range of different regions rather than only on a single country or region. Existing research into bootlegging activities has mainly been from Western countries and while this research expands that scope to encompass a single Malaysian organization, there is currently little knowledge regarding variations in bootlegging's practice and its influence on organizational performance across different organizational and national cultural contexts. For example, it is likely that adherence to management normative enforcement is contingent on organizational and country cultures. This may indeed be suggested in this study since we did not find much evidence for the covert operation of reworked initiatives, potentially suggesting that the managers in Malaysia are more adherent to their organization's rules and relatively reluctant to flout direct orders not to proceed with an idea. There are good reasons, therefore, for further research in other organizations and countries.

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