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Robins School of Business
University of Richmond
Improving Auditors’ Consideration of Evidence Contradicting Management’s Estimate Assumptions*

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ABSTRACT
Auditors have difficulty evaluating the assumptions underlying management’s estimates. One source of these problems is that auditors appear to dismiss evidence contradicting management’s assumptions because their initial preference to support management’s accounting biases their preliminary conclusions and, thus, their interpretation of evidence. We experimentally examine whether auditors with a balanced focus (i.e., a focus on documenting evidence that supports and contradicts their preliminary conclusion) are less likely to dismiss evidence that contradicts management’s assumptions than auditors with a supporting focus (i.e., a focus on documenting evidence that supports their preliminary conclusion). We expect and find that, compared with auditors with a supporting focus, auditors with a balanced focus create documentation that is less dismissive of evidence contradicting management’s estimate. Importantly, a balanced focus changes auditors’ cognition and affects how auditors interpret contradicting evidence rather than merely increasing their documentation of this evidence. The effects of reduced dismissiveness persist to improve auditors’ evaluations of a biased estimate and subsequent actions, improving audit quality in an important and difficult area.

Amélioration de la prise en compte par les auditeurs des éléments infirmant les hypothèses relatives aux estimations de la direction

RÉSUMÉ
Les auditeurs éprouvent de la difficulté à évaluer les hypothèses sous-jacentes aux estimations de la direction. L’une des sources de la problématique est l’apparent rejet par les auditeurs des éléments probants qui infirment les hypothèses de la direction, et cela parce que leur propension

*Accepted by Christopher P. Agoglia. We thank the auditors and their firms who participated in our study. This paper has benefitted from helpful comments from Chris Agoglia, two anonymous reviewers, Michael Bamber, Tina Carpenter, Ted Christensen, Sean Dennis, Cassandra Estep, Erin Hamilton, Michelle McAllister, Pat O’Brien, Jason Smith, Bridget Stomberg, Erin Towery, and Dan Zhou, and workshop and conference participants at Lehigh University, University of Georgia, University of Kentucky, University of Massachusetts Amherst, University of Nevada Las Vegas, University of Waterloo, Virginia Tech, the 2016 Auditing Section Midyear Meeting, the 2016 Deloitte/Kansas University Auditing Symposium, the 2015 Accounting, Behavior, and Organizations Midyear Meeting, and the 2015 Graduate Research in Accounting Conference at Emory. We are grateful to Christy Nielson for her able research assistance. In addition, we are grateful for the support of a Research Advisory Board Grant from the Center for Audit Quality (CAQ); Austin and Hammersley are grateful for the support of an Access to Audit Personnel Grant from the CAQ; Hammersley is grateful for support from a Terry-Sanford Research Grant; Ricci is grateful for support from a Fisher School of Accounting Summer Research Grant. The views expressed in the paper are those of the authors alone and not those of the CAQ.† Corresponding author.

Contemporary Accounting Research Vol. 37 No. 2 (Summer 2020) pp. 696–716 © CAAA
doi:10.1111/1911-3846.12540
Materiality Thresholds: Empirical Evidence from Change in Accounting Estimate Disclosures

Philip Keunho Chung; Marshall A. Geiger; Daniel Gyung Paik; Collin Rabe

Accounting Horizons HORIZONS-19-114.

https://doi.org/10.2308/HORIZONS-19-114

This paper provides empirical evidence on the materiality thresholds adopted in "change in accounting estimate" (CAE) disclosures. We also investigate the characteristics of the disclosing firms and their auditors, as well as the characteristics of the CAEs, such as the effect on income, the accounts affected, and disclosure venue. U.S. GAAP requires firms to disclose a CAE if its effect on the financial statements is deemed to be "material" (ASC 250-50-4). We analyze 4,335 CAE disclosures from 2006 to 2016 and provide the first descriptive evidence of the actual materiality thresholds used for CAE disclosures in practice. Our main finding is that quantitative materiality thresholds for CAE disclosures are significantly lower than conventional materiality thresholds, such as 5 percent of pretax income, and that firms may not only apply quantitative materiality thresholds more conservatively, but that other qualitative considerations play an important role in determining CAE materiality. Our results also show that there exists considerable variation in CAE disclosure across firm size, industry membership, auditor, financial statement account effected and the direction of the effect on income.

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Institutional Investor Trading Around Auditor's Going Concern Modified Opinions: An Analysis of Mutual Funds and Pension Funds

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We contribute to auditing literature by examining trading behavior of mutual and pension funds around first-time going concern modified opinions (GCMO). We find that mutual funds are significant net sellers of GCMO firms in the period before the GCMO announcement and then decrease their net selling at the GCMO announcement. In contrast, pension funds appear to be less active net sellers in the pre-GCMO period and then significantly increase their net selling as an immediate response to the GCMO announcement, and then reduce their net selling in the post-GCMO period. Our net selling results are robust to a battery of additional tests, including alternative specifications of the GCMO event window, using an extended pre-GCMO benchmark period, controlling for 8-K and earnings announcements, excluding subsequently bankrupt firms and using change variables in our models. In additional analyses, we find that overall trading volume increases for both mutual and pension funds at the GCMO announcement. Our examination of trading behavior provides initial evidence on differences between these two groups of institutional investors in their trading response to first-time GCMOs, and enables us to provide a more robust assessment of the information content of GCMOs for these different groups of sophisticated market participants.

KEYWORDS
Bankruptcy, Going Concern Opinions, Institutional Investors, Mutual Funds, Pension Funds, Trading Behavior

JEL CLASSIFICATION
G23; M42

1 INTRODUCTION

The important issue of whether the auditor’s going concern modified opinion (GCMO) provides information to the market has spawned a considerable amount of debate and research over the past several decades (Carson et al., 2013; DeFond & Zhang, 2014). Researchers investigating this issue have typically assessed the information content of GCMOs by examining the market’s share price reaction to the announcement of the GCMO, and the inferences drawn from these studies have been surprisingly diverse. A number of studies conclude that first-time GCMOs provide information to the market, as they are associated with a significant negative stock price reaction (Dopuch, Holthausen, & Leftwich, 1986; Loudder et al., 1992; Fleak & Wilson, 1994; Blay & Geiger, 2001; Kausar, Taffler, & Tan, 2006, 2009; Menon & Williams, 2010). Other studies, however, suggest that any negative market response to first-time GCMOs is due to the simultaneous release of other negative information about the firm and conclude that first-time GCMOs generally do not provide any incremental
Assessing the Benefit of Student Self-Generated Multiple-Choice Questions on Examination Performance

Marshall A. Geiger; Mary Middleton; Maryam Tahseen

Issues in Accounting Education ISSUES-19-110.

https://doi.org/10.2308/ISSUES-19-110

Prior non-accounting research has generally concluded that students obtain performance benefits from self-generating MCQs. We examine accounting students completing an extra-credit assignment to self-generate MCQs and its association with examination performance gains. Using students from a large public and small/medium sized private university, across multiple courses and semesters, we find that while students completing the assignment had significantly greater examination gains than those not completing the assignment, they did not outperform students in the same courses not offered the assignment. We find that these results hold across students of all initial performance quartiles. Our results suggest that prior educational research may overestimate the benefits of MCQ self-generation by not performing appropriate control group comparisons. We provide evidence that voluntary self-generation of MCQs may be a way to identify students seeking to improve their course performance, but in of itself it may not be an effective method to improve student performance on MCQ examinations. Our study contributes to the general education literature by presenting a more robust evaluation of the benefit of student self-generation of MCQs, and to the accounting education literature by being the first study utilizing accounting students to assess the potential benefit of student MCQ self-generation.

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Insider trading around auto recalls: Does investor attention matter?

Omer N. Gokalp · Sami Keskek · Abdullah Kumas · Marshall A. Geiger

Published online: 19 December 2019
© Springer Science+Business Media, LLC, part of Springer Nature 2019

Abstract
Using a comprehensive sample of customer complaints filed with the National Highway Traffic Safety Administration, we examine the differences in the timing of insiders’ and investors’ use of outside generated public information. We first find that levels of customer complaints predict future auto recalls and their financial consequences, suggesting that these publicly available customer complaints contain value-relevant information. We then find that customer complaints are not contemporaneously associated with stock returns but predict large negative abnormal stock returns during the period following the recall announcement. Thus, we find that the market generally fails to impound the information contained in customer complaints in a timely manner. We then examine whether mutual funds, as sophisticated investors, appear to use the complaint data and find that, consistent with the overall market, in the aggregate they do not appear to use the complaint data to inform their trades until after recall announcements. However, mutual funds that focus more of their trades in the auto industry appear to pay more attention to the complaint data and trade consistent with the data before recall announcements. We then find that the top five executives of the car manufacturers in our sample are significant sellers of personal shares prior to the announcement of auto recalls, particularly when customer complaints are high. Our findings suggest that insiders’ informational advantage is at least in part due to general investor limited attention to publicly available information.

Keywords Insider trading · Product recalls · Limited attention · Customer complaints

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Aggregate market attention around earnings announcements

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Abstract

Purpose – This analysis is the first to explore the overall roles of the offsetting attraction and distraction influences of earnings news in shaping the level of attention given to the equity market by market participants.

Design/methodology/approach – We use multivariate regression approach and examine how trading activity levels within the set of non-announcing firms varies with respect to collective measures of contemporaneous earnings announcement visibility. We employ attention and information transfer theories in our hypothesis development.

Findings – This analysis is the first to explore the overall roles of the offsetting attraction and distraction influences of earnings news in shaping the level of attention given to the equity market by market participants. Specifically, we examine how the number of earnings announcement activity affects investor attention as measured by trading volume given to the set of non-announcing firms. We find that while earnings announcement numbers lower trading volume responses to earnings news among announcing firms (consistent with Hirshleifer et al., 2009), their distractive influence does not carry over into the market as a whole. More importantly, investor attention to both the overall market and the larger subset of non-announcing firms increase in response to earnings news activity levels. However, after decomposing the announcers as same-industry and different-industry announcers, we find that investor attention to the non-announcing segment of the market increases with the number of same-industry announcers, but actually seems to decrease (i.e. they distract attention) with the number of different-industry announcers. We also find that the associated earnings surprise brings attention to non-announcing firms (consistent with earnings news is relevant to overall market price movements). Finally, we find that distraction effects are attenuated in the financial crisis period.

Research limitations/implications – A promising area of future research is to examine the relation between market pricing efficiency and aggregate earnings activity for the set of non-announcing firms. Although it will be a challenging task to measure pricing efficiency for the non-announcers, this will complement the prior literature only focusing on the announcing segment of the market.

Practical implications – First, instead of assessing the impact of number of earnings announcements on the subset of announcing firms, which is a micro-level perspective, we identify the impact of news arrivals on all firms in the market including the vastly larger set of non-announcing firms. Second, by decomposing the number of announcements into industry-related and -unrelated news we show that different types of news arrivals spark investor attention differently, suggesting the importance of categorizing the news into related and unrelated industries.

Social implications – A potential future area of research identified by our analysis is to investigate what type of investors’ attention is distracted or attracted during the earnings announcements. A promising area of future research is to examine the relation between market pricing efficiency and aggregate earnings activity for the set of non-announcing firms. Although it will be a challenging task to measure pricing efficiency for the non-announcers, this will complement the prior literature only focusing on the announcing segment of the market.


Funding: The authors received no financial support for the research, authorship, and/or publication of this article.

Declaration of conflicting interests: The authors declared no potential conflicts of interest with respect to the research, authorship, and/ or publication of this article.
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Are leases substitutes or complements to debt? Insights from an analysis of debt covenants

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Abstract

Purpose – The purpose of this study is to investigate the relationship between off-balance-sheet (OBS) operating leases and long-term debt by analyzing firms’ debt risk profiles measured by the constraints on firms in their financial ratios in their debt covenants.

Design/methodology/approach – This study determines debt risk profiles using three measures: the ex ante probability of covenant violation (Demerjian and Owens, 2016), firms in violation of debt covenants and firms close to covenant violations.

Findings – High-risk firms according to all three measures, on average, have a significantly lower level of operating leases, indicating that these firms use OBS leases as a substitute for long-term debt. Interestingly, for firms operating in industries in which leases are widely available, firms with a high probability of covenant violation have a significantly higher level of operating leases, indicating that these firms use OBS leases as a complement to long-term debt. Further analysis indicates that lease financing is less costly than debt financing for these firms.

Research limitations/implications – Overall, evidence of this study indicates that firms facing financial constraints may attempt to lease more of their assets, but the availability of leasing is constrained by their debt covenant obligations and the strength of the leasing market in its industry.

Originality/value – This study identifies states in which risky firms may treat leases as either complements or substitutes for long-term debt, implying that the leasing decision relates to the availability of an active leasing market for a firm’s assets and the firm’s financial constraints. The findings of this study support recent research showing that debt and leases are complementary in the presence of counterparty risk providing insight into the paradoxical relationship identified in prior research between leases and long-term debt.

Keywords Financial risk, Lease, Covenant violation, Debt covenant, Off-balance-sheet financing

Paper type Research paper

1. Introduction

Over the past 20 years, operating leases became an important source of financing for US companies. In fact, the mean ratio of operating leases to total debt increased to 745% from 1980 to 2007 (Cornaggia et al., 2013). Some attribute this increase to the lease accounting standards in effect during that period (ASC 840), which allowed companies to treat long-
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RESEARCH IN ECONOMIC EDUCATION

Learning effects of the flipped classroom in a principles of microeconomics course

Erik Craft and Maia Linask

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ABSTRACT

The authors of this article estimate the learning effects of the flipped classroom format using data from 16 sections of principles of microeconomics over a 4-year period. The experimental design is unique in that two treatment and two control sections were taught during the fall semester in four consecutive years. Further, the instructor switched the time of day when the treatment and control sections were taught each year. Controlling for gender, ACT score, a normed high school GPA, Pell Grant award, time of day, and initial knowledge of economics, the authors find no evidence of increased learning using end-of-semester measures for students in the flipped classroom in comparison to sections with a moderate amount of active learning.

A recent pedagogical innovation is known as the flipped classroom. While definitions vary, the flipped classroom is generally understood as moving traditional lecture instruction outside of the classroom and instead using class time for active learning activities, which include problem-solving, discussion, and experiments (see for example, Lage, Platt, and Treglia [2000] for an early application in economics). We analyze various learning outcomes for students in flipped principles of microeconomics sections relative to a more traditional course format with a moderate amount of active learning. Particular care is taken to control for student aptitudes, initial knowledge of economics, and the time of day the class meets. To our knowledge, this article describes the first research on the flipped classroom in economics courses that both compares flipped and traditional course sections taught by the same instructor during the same semester and uses identical assignments and a standardized test of economic knowledge to measure both proficiency and growth. Our approach precludes misidentification of treatment effects due to year, cohort, time of day, or incentive differences.

We seek not only to identify whether learning is improved by a flipped classroom approach, but also to investigate whether the flipped classroom approach has different effects by gender, initial knowledge of economics, and overall academic preparation.

After 4 years and 16 sections of principles of microeconomics (23–26 students per section), half of which were taught using a flipped classroom approach, we found no statistically significant end-of-semester treatment effects of the flipped classroom. While this result is at odds with much of the existing literature (see for example, Balaban, Gilleskie, and Tran [2016] and Caviglia-Harris [2016]), there is some overlap between the upper bound of our 95 percent confidence interval and the lower end of estimated impacts in the literature. Our results are consistent with existing evidence suggesting that the flipped classroom has a small impact on the final exam grade, which

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This article has been republished with minor changes. These changes do not impact the academic content of the article.

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Repatriation taxes

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\textbf{A R T I C L E   I N F O}

Article history:
Received 21 May 2018
Received in revised form 2 November 2019
Available online 5 February 2020

JEL classification:
F23
H25
E60

Keywords:
Tax reform
Repatriation taxes
Asset holding
Corporate tax

\textbf{A B S T R A C T}

We present a model of a multinational firm to quantify the effects of policy changes in repatriation tax rates. The framework captures the dynamic responses of the firm from the time a policy change is anticipated through its enactment, including its long-run effects. We find that failing to account for anticipatory behavior surrounding a reduction in repatriation tax rates overstates the amount of profits repatriated from abroad and underestimates tax revenue losses. We further show that policy changes have a relatively small impact on hiring and investment decisions if firms have relatively easy access to credit markets – as is the case for most multinational firms. Finally, by altering the relative price of holding assets abroad, news of a future reduction in repatriation tax rates acts as an implicit tax on repatriating funds today. We capture and quantify this “shadow tax.”

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1. Introduction

Prior to 2018, the U.S. government collected taxes on the worldwide profits of U.S. based corporations. In addition to paying foreign taxes on profits earned abroad, corporations were often also subject to U.S. taxes once these profits were repatriated to the U.S. This is known as the repatriation tax. Many firms argued that these additional repatriation taxes deterred them from repatriating foreign sourced income. Leading up to the enactment of U.S. tax reforms in 2018, these foreign profits, not yet taxed by the U.S. government, stood at over $2 trillion. This large accumulation of assets abroad pushed changing repatriation tax policies high on the legislative agenda. Motivated by long and ongoing policy discussions, as well as past and recent repatriation tax policy reforms, we build a dynamic model to quantify the effects of repatriation tax policy changes on firm-level variables and to understand the mechanisms driving those responses. Can tax reforms lead to an increase in repatriated assets? Do these reforms stimulate employment and investment? What are the associated tax revenue costs? How are the costs and benefits of a reform influenced by protracted legislative deliberations and policy uncertainty? The goal of this paper is to shed light on these questions.

While the economic and tax revenue consequences of reforming repatriation tax policy are potentially large and involve a non-trivial dynamic aspect, the literature, for the most part, has abstracted from studying the dynamic behavior of the firm that accounts for expectations of changes in repatriation tax policy. To the best of our knowledge, this paper presents the first quantitative framework capturing the dynamic impacts of repatriation tax changes that includes the anticipation effects of such reforms.

\textsuperscript{*} Previous versions of the paper circulated as “Uncertain Taxes and the Quantitative Effects of Repatriation Tax Proposals”.
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https://doi.org/10.1016/j.red.2019.11.004
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KEYWORDS

Active learning; flipped classroom; inverted classroom; pedagogy; principles of microeconomics

JEL CODES

A20; A22

A recent pedagogical innovation is known as the flipped classroom. While definitions vary, the flipped classroom is generally understood as moving traditional lecture instruction outside of the classroom and instead using class time for active learning activities, which include problem-solving, discussion, and experiments (see for example, Lage, Platt, and Treglia [2000] for an early application in economics). We analyze various learning outcomes for students in flipped principles of microeconomics sections relative to a more traditional course format with a moderate amount of active learning. Particular care is taken to control for student aptitudes, initial knowledge of economics, and the time of day the class meets. To our knowledge, this article describes the first research on the flipped classroom in economics courses that both compares flipped and traditional course sections taught by the same instructor during the same semester and uses identical assignments and a standardized test of economic knowledge to measure both proficiency and growth. Our approach precludes misidentification of treatment effects due to year, cohort, time of day, or incentive differences.

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“Tackling the federal debt problem fairly”: Context for the introductory class

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William Gale’s “Tackling the Federal Debt Problem Fairly” provides a wide array of content for the economics instructor of any number of courses. In this brief introduction, we wish to highlight some ways in which the content maps into introductory economics. One difficulty with content articles is that it might not always be clear where to incorporate the content in a course, and we hope to provide some guidance on this challenge. However, our discussion is far from comprehensive and is intended only to illustrate some of the potential ways the material might complement more traditional course content.

Some of the content presented in the article already appears in principles textbooks, but no single textbook covers all the issues raised and thus provides an opportunity for expanding the discussion. Our hope is that the reader will identify content that will enrich their teaching of a number of topics beyond just the debt. We also note that the article does not attempt to provide a balanced viewpoint. The position taken is that the U.S. debt is too high and needs to be lowered and that the government should take action to reduce income inequality. We hope that instructors will be motivated to think of alternative perspectives on the size of the debt and further enhance classroom discussion.

The federal debt

Gale’s article provides some novel ways of thinking about what the debt is, and he provides supportive details about the causes and consequences of the debt. Discussions of the debt in introductory macroeconomics usually focus on the impact of the debt on various forms of crowding out and, to a lesser degree, on the impact on inflation. The article also illustrates that the current debt is different from past spikes in debt because it is debt to finance consumption (versus recessionary or war spending). Gale also provides a more in-depth perspective on the future of U.S. federal debt levels. In particular, he provides a greater understanding of why the current projections are that the debt will grow at a high rate. The article also explains the cost of sustained debt in concrete terms by noting, for example, how foreign ownership of debt lowers future national income and quantifies how it will impact future GDP per capita. The overall theme of the article, fairly paying off the debt, is one that is typically ignored in most textbook discussions of debt.

Fairness

Economics textbooks typically devote substantial coverage to defining efficiency and illustrating the impact of government impact on market efficiency. While it is common to identify potential
The Federal Reserve has been a strong supporter of economic education efforts for many decades. Economic educators are fortunate that each regional office has chosen to focus their support in different ways as it provides a wealth of resources supporting K–12 and higher education efforts. This symposium was developed with both breadth and depth in mind, sharing with readers an overview of available resources as well as more detailed descriptions of a few significant programs and resources. Hill and Wolla provide an overview of resources across regional offices, including a historical account of what has motivated their development and how content emphasis has changed over time. This narrative provides an important context for their summary of available classroom resources, professional development activities, and scholarship efforts. Clayton and Nuckols describe a collaboration between Austin College and the Federal Reserve Bank of Dallas that provides undergraduate students with an opportunity to fully engage with the research process. The Economics Scholars Program not only provides a venue for students to present their work, but also gives them leadership opportunities through the various conference roles they might undertake, including the Peer Review Board in charge of vetting submissions. The conference has grown substantially over its 14 years, both in terms of number of participants and schools. The final articles in this symposium highlight the instructional use of two important resources: Federal Reserve Economic Data (FRED) and econlowdown.org. Mendez-Carbajo provides an overview of scholarship based on the use of FRED in the classroom, highlighting active learning exercises. He then describes FRED Interactive, a set of interactive instructional modules supporting information literacy and numeracy, also developed and maintained by the Federal Reserve Bank of St. Louis. In the final article in this symposium, Mendez-Carbajo and Malakar provide examples of how the classroom may be flipped employing econlowdown.org resources. They begin with a description of the wealth of online resources that are available before detailing how these were utilized in a completely online course and a more traditional face-to-face course, demonstrating their wide applicability.
Repatriation taxes

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doi:10.1016/j.red.2019.11.004

A R T I C L E   I N F O
Article history:
Received 21 May 2018
Received in revised form 2 November 2019
Available online 5 February 2020

JEL classification:
F23
H25
E60

Keywords:
Tax reform
Repatriation taxes
Asset holding
Corporate tax

A B S T R A C T

We present a model of a multinational firm to quantify the effects of policy changes in repatriation tax rates. The framework captures the dynamic responses of the firm from the time a policy change is anticipated through its enactment, including its long-run effects. We find that failing to account for anticipatory behavior surrounding a reduction in repatriation tax rates overstates the amount of profits repatriated from abroad and underestimates tax revenue losses. We further show that policy changes have a relatively small impact on hiring and investment decisions if firms have relatively easy access to credit markets as is the case for most multinational firms. Finally, by altering the relative price of holding assets abroad, news of a future reduction in repatriation tax rates acts as an implicit tax on repatriating funds today. We capture and quantify this “shadow tax.”

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1. Introduction

Prior to 2018, the U.S. government collected taxes on the worldwide profits of U.S.-based corporations. In addition to paying foreign taxes on profits earned abroad, corporations were often also subject to U.S. taxes once these profits were repatriated to the U.S. This is known as the repatriation tax. Many firms argued that these additional repatriation taxes deterred them from repatriating foreign sourced income. Leading up to the enactment of U.S. tax reforms in 2018, these foreign profits, not yet taxed by the U.S. government, stood at over $2 trillion. This large accumulation of assets abroad pushed changing repatriation tax policies high on the legislative agenda. Motivated by long and ongoing policy discussions, as well as past and recent repatriation tax policy reforms, we build a dynamic model to quantify the effects of repatriation tax policy changes on firm-level variables and to understand the mechanisms driving those responses. Can tax reforms lead to an increase in repatriated assets? Do these reforms stimulate employment and investment? What are the associated tax revenue costs? How are the costs and benefits of a reform influenced by protracted legislative deliberations and policy uncertainty? The goal of this paper is to shed light on these questions.

While the economic and tax revenue consequences of reforming repatriation tax policy are potentially large and involve a non-trivial dynamic aspect, the literature, for the most part, has abstracted from studying the dynamic behavior of the firm that accounts for expectations of changes in repatriation tax policy. To the best of our knowledge, this paper presents the first quantitative framework capturing the dynamic impacts of repatriation tax changes that includes the anticipation effects of such reforms.

© Previous versions of the paper circulated as “Uncertain Taxes and the Quantitative Effects of Repatriation Tax Proposals”.

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https://doi.org/10.1016/j.red.2019.11.004
1094-2025/ © 2020 Elsevier Inc. All rights reserved.
This article analyzes the impact of the education funding component of the American Recovery and Reinvestment Act of 2009 (Recovery Act) on public school districts. We use cross-sectional differences in district-level Recovery Act funding to investigate the program’s impact on staffing, expenditures, and debt accumulation. To achieve identification, we use exogenous variation across districts in the allocations of Recovery Act funds for students with special needs. We estimate that $1 million in grants to a district had the following average effects: Expenditures increased by $570,000, employment changed little to none, and debt increased by $370,000. Moreover, 70 percent of the increase in expenditures was in the form of capital outlays. Next, we build a dynamic, decision-theoretic model of a school district’s budgeting problem, which we calibrate to district-level expenditures and staffing data. The model can qualitatively match the employment and capital expenditure responses from our regressions. We also use the model to conduct policy experiments. (JEL D21, D24, E52, E62)

https://doi.org/10.20955/r.102.145-71
This paper provides empirical evidence on the materiality thresholds adopted in "change in accounting estimate" (CAE) disclosures. We also investigate the characteristics of the disclosing firms and their auditors, as well as the characteristics of the CAEs, such as the effect on income, the accounts affected, and disclosure venue. U.S. GAAP requires firms to disclose a CAE if its effect on the financial statements is deemed to be "material" (ASC 250-50-4). We analyze 4,335 CAE disclosures from 2006 to 2016 and provide the first descriptive evidence of the actual materiality thresholds used for CAE disclosures in practice. Our main finding is that quantitative materiality thresholds for CAE disclosures are significantly lower than conventional materiality thresholds, such as 5 percent of pretax income, and that firms may not only apply quantitative materiality thresholds more conservatively, but that other qualitative considerations play an important role in determining CAE materiality. Our results also show that there exists considerable variation in CAE disclosure across firm size, industry membership, auditor, financial statement account effected and the direction of the effect on income.

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The evolution of purchasing power parity

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A R T I C L E   I N F O

Article history:
Available online 11 July 2020

Keywords:
Purchasing power parity
Exchange rates
Consumer price index
International finance

A B S T R A C T

A large body of literature in international finance has attempted to estimate the speed of convergence between countries’ aggregate price indices to those levels predicted by purchasing power parity (PPP). This paper takes a novel approach by considering how this speed of convergence itself has evolved over time. Using a dynamic common correlated effects (DCCE) framework from Chudik and Pesaran (2015) applied to a panel of countries’ real exchange rates over the years 1960–2015, we find an average half-life of around 3 years. Moreover, we show that the estimated half-life fell by about 2 years over the course of the past five decades, suggesting that the so-called PPP puzzle (Rogoff, 1996) may abating over time. Our results also serve to contextualize past estimates by demonstrating a high degree of sample selection sensitivity in this literature. Furthermore, we propose explanations for the observed increase in the speed of international price adjustments, focusing primarily on the increasingly tradable nature of the composition of the U.S. consumer price index (CPI). We build a measure of tradability of the CPI and show that, despite an increase in the proportion of services in the average consumer’s basket, the CPI has become more tradable over time, thus offering a potential explanation for the observed increase in adjustment speed.

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1. Introduction

Understanding the behavior of prices across borders has long been fundamental to economists’ thinking about international trade and exchange rate systems. Numerous studies have sought to estimate the speed at which prices between countries converge over time by examining the dynamic behavior of real exchange rates (RERs). These studies have differed both in terms of methodologies and sample data, resulting in a wide range of estimates. This paper contributes to this literature by providing new estimates of adjustment speed utilizing an up-to-date econometric framework, but moreover focuses on an important related question: how has the speed of international price convergence itself changed over time? In other words, do global market forces more quickly push economies’ prices toward purchasing power parity (PPP) today than in the past? Has the globalization of recent decades made the theory of PPP a better or worse paradigm for the workings of the modern world market?

We present empirical evidence that the speed of international price convergence has been increasing – or, equivalently, the time to convergence has been decreasing – over the past 55 years. As measured in half-lives, we find that the average rate of PPP convergence over the sample period of 1960–2015 is about 3 years, putting it in line with previous estimates from the literature. However, this rate seems to have fallen over time from a high point at the beginning of the sample to its current

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High priority violations and intra-firm pollution substitution

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ARTICLE INFO

Article history:
Received 26 April 2019
Received in revised form 26 May 2020
Accepted 24 June 2020
Available online 7 July 2020

JEL classification:
Q52
Q53

Keywords:
Pollution substitution
Pollution leakage
CAA
Spillovers
Nearest neighbor matching

ABSTRACT

We examine the sign and the magnitude of pollution leakage associated with the High Priority Violations Policy (HPVP) under the Clean Air Act. Using 46,012 facility-year observations for 7947 polluting facilities across all industries in the U.S., we find strong evidence of intra-firm pollution substitution associated with the HPVP. On average, a compliant facility increased its toxic air emissions by about 35–56 percent (3600 to 6000 lbs.) if it had at least one other sister facility, within the same 6-digit NAICS industry code and belonging to the same parent firm, concurrently under violation. The magnitude of such intra-firm pollution substitution was stronger towards compliant facilities with no prior history of high priority violation as well as towards those owned by private parent companies. We also find that substitution of pollution from a sister facility under violation increases the risk of violation among currently compliant facilities.

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1. Introduction

The economic benefits of environmental regulation are well documented (Chay and Greenstone, 2003; Environmental Protection Agency, 2011). However, many environmental regulations are associated with pollution leakages or spillovers (Henderson, 1996; Dean et al., 2009; Hanna, 2010) where the regulation not only leads to a decrease in emissions at the targeted location as intended, but also triggers an unintended change in emissions elsewhere. Such pollution spillovers make it difficult to estimate the overall impact on pollution due to regulation. For example, if a pollution reduction policy in one location, unintendedly, increases pollution elsewhere, then the environmental benefits of the regulation are positive in the location where it was implemented and negative where there were unintended spillovers. As a whole, the net improvement in pollution associated with such a policy depends on the magnitude of the intended decrease in pollution at the targeted location as well as the magnitude of the unintended pollution leakage. As spillovers can either be negative or positive, the estimated environmental benefits due to pollution control regulation may be biased upward or downward respectively, and the overall welfare impact is ambiguous. A reliable analysis of any pollution regulation, thus, warrants a closer examination of
Overview of Vocational Rehabilitation Data about People with Visual Impairments: Demographics, Services, and Long-Run Labor Market Trends

Christopher M. Clapp¹, John V. Pepper², Robert Schmidt³, and Steven Stern⁴

Abstract

Introduction: This study describes the characteristics of, services received by, and labor market outcomes of applicants with visual impairments to three state vocational rehabilitation programs. Our objective is to both document cross-state variation in vocational rehabilitation clientele and services and provide new insights on the longitudinal labor market outcomes of clients with visual impairments (i.e., blindness or low vision). This analysis is a first step in assessing the returns to vocational rehabilitation services for this population.

Methods: We first created a unique longitudinal data set by matching administrative records on applicants who are visually impaired in state fiscal year 2007 from three vocational rehabilitation agencies to 8 years of employment data from state Unemployment Insurance programs. Using these data, we examined cross-state variation in the descriptive statistics for important client explanatory variables and vocational rehabilitation service categories. We then compared the long-term labor market outcomes of clients receiving services (treated) to untreated individuals.

Results: We documented two important findings. First, there were substantial differences in client characteristics, services provided, and costs across the three states. Second, the long-run labor market analysis was consistent with vocational rehabilitation services having no employment effect but a positive earnings effect.

Discussion: Labor market results indicate vocational rehabilitation services provided persistent earnings benefits. Yet the substantial cross-state heterogeneity suggests these labor market results might...
Intellectual property, tariffs, and international trade dynamics

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Article Info
Article history:
Received 29 October 2019
Accepted 20 October 2019
Available online 9 November 2019

JEL classification:
P41
P42
F51
F21
F13

Keywords:
Tariffs
Intellectual property rights
Technology capital transfers
International trade

Abstract
The emergence of global value chains leads not only to a magnification of trade in intermediate inputs, but also to extensive technology diffusion. Moreover, the lack of enforcement of intellectual property rights has recently become a subject of debate in the context of China-US trade negotiations. In this paper, the interaction between tariffs and the enforcement of intellectual property rights is studied within a quantitative general equilibrium framework. Results indicate that tariffs could be an effective deterrent for weak protections for intellectual property and weakening enforcement of intellectual property rights may be a strong deterrent for raising tariffs.

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1. Introduction

In the wake of the 2008 financial crisis and the Great Recession, the world has seen a resurgence of protectionist policies. The Trump administration has pursued policies that aim to reduce imports into the United States and has used tariffs as a bargaining chip to protect U.S. intellectual property. In particular, the administration has sought to “pursue” Chinese firms and the Chinese government for appropriation of American intellectual property through increasing tariffs in a retaliatory way. In the context of these developments, several questions naturally arise. First, to what extent are trade and intellectual property protections related? Second, how do policies governing the enforcement of intellectual property rights interact with trade policy? Third, how might we measure the effects of these policies on the welfare of citizens in each country and on the development of intellectual property?

* This paper was written in preparation for the Carnegie-Rochester-NYU Conference on Public Policy. We would like to thank Wolfgang Keller and Rongrong Zhang for excellent discussions, George Alessandria and Yan Bai for editorial comments, and the participants of the Carnegie-Rochester-NYU Conference on Public Policy for feedback and discussions. Furthermore, seminar participants at the Bureau of Economic Analysis, UVA, Clemson University, Midwest Macro Meetings, the Federal Reserve Board, Liberal Arts Macro Conference, the 4th IMF-Atlanta Fed Workshop, Bank of Canada-Tsinghua University of Toronto Conference, and the Federal Reserve Bank of Atlanta provided many useful comments. We acknowledge Carla Moreno for excellent research assistance. The views expressed in this paper are solely the responsibility of the authors and should not be interpreted as reflecting the views of the Federal Reserve Bank of Atlanta or the Federal Reserve System.

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https://doi.org/10.1016/j.jmoneco.2019.10.013
0304-3932/© 2019 Elsevier B.V. All rights reserved.
The Impact of Brexit on Foreign Investment and Production†

By Ellen R. McGrattan and Andrea Waddle*

Using simulations from a multi-country neoclassical growth model, we analyze several post-Brexit scenarios. First, the United Kingdom unilaterally imposes tighter restrictions on FDI and trade from other EU nations. Second, the European Union retaliates and imposes the same restrictions on the United Kingdom. Finally, the United Kingdom reduces restrictions on other nations during the post-Brexit transition. Model predictions depend crucially on the policy response of multinationals’ investment in technology capital, accumulated know-how from investments in R&D, brands, and organizations used simultaneously in their domestic and foreign operations. (JEL D25, F13, F15, F23, G31, O32)

In June of 2016, voters in the United Kingdom decided to leave the European Union, a decision popularly known as Brexit. The dissolution meant that trade costs would rise and multinational firms of the United Kingdom and European Union would no longer enjoy free movement of capital across each other’s borders, as their subsidiaries would be subject to more stringent regulations and higher production costs. In this paper, we estimate the impact of higher trade costs and capital restrictions on foreign investment, production, and welfare—in the United Kingdom, European Union, and other nations that hosted EU investment and invested in the European Union prior to the referendum.

To conduct our analysis, we extend the multi-country dynamic general equilibrium model of McGrattan and Prescott (2009, 2010) by introducing trade frictions and allowing for bilateral costs on FDI, which then enables us to study the partial dissolution of an economic union. The main feature of the framework is technology capital, which is the accumulated know-how from investments in R&D, brands, and organizations that can be used simultaneously by multinational firms in their

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† Go to https://doi.org/10.1257/mac.20170399 to visit the article page for additional materials and author disclosure statement(s) or to comment in the online discussion forum.

1 For evidence of restrictive policies, see Kalinova, Palerm, and Thomsen (2010), who discuss indices of the OECD Investment Division that measure FDI restrictiveness of member countries, specifically regulatory restrictions such as foreign equity limits, screening and approval, restrictions on key personnel, and operational regulations.
The evolution of purchasing power parity

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A R T I C L E   I N F O
Article history:
Available online 11 July 2020

Keywords:
Purchasing power parity
Exchange rates
Consumer price index
International finance

A B S T R A C T
A large body of literature in international finance has attempted to estimate the speed of convergence between countries’ aggregate price indices to those levels predicted by purchasing power parity (PPP). This paper takes a novel approach by considering how this speed of convergence itself has evolved over time. Using a dynamic common correlated effects (DCCE) framework from Chudik and Pesaran (2015) applied to a panel of countries’ real exchange rates over the years 1960–2015, we find an average half-life of around 3 years. Moreover, we show that the estimated half-life fell by about 2 years over the course of the past five decades, suggesting that the so-called PPP puzzle (Rogoff, 1996) may abating over time. Our results also serve to contextualize past estimates by demonstrating a high degree of sample selection sensitivity in this literature. Furthermore, we propose explanations for the observed increase in the speed of international price adjustments, focusing primarily on the increasingly tradable nature of the composition of the U.S. consumer price index (CPI). We build a measure of tradability of the CPI and show that, despite an increase in the proportion of services in the average consumer’s basket, the CPI has become more tradable over time, thus offering a potential explanation for the observed increase in adjustment speed.

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1. Introduction

Understanding the behavior of prices across borders has long been fundamental to economists’ thinking about international trade and exchange rate systems. Numerous studies have sought to estimate the speed at which prices between countries converge over time by examining the dynamic behavior of real exchange rates (RERs). These studies have differed both in terms of methodologies and sample data, resulting in a wide range of estimates. This paper contributes to this literature by providing new estimates of adjustment speed utilizing an up-to-date econometric framework, but moreover focuses on an important related question: how has the speed of international price convergence itself changed over time? In other words, do global market forces more quickly push economies’ prices toward purchasing power parity (PPP) today than in the past? Has the globalization of recent decades made the theory of PPP a better or worse paradigm for the workings of the modern world market?

We present empirical evidence that the speed of international price convergence has been increasing – or, equivalently, the time to convergence has been decreasing – over the past 55 years. As measured in half-lives, we find that the average rate of PPP convergence over the sample period of 1960–2015 is about 3 years, putting it in line with previous estimates from the literature. However, this rate seems to have fallen over time from a high point at the beginning of the sample to its current
TRADE, TECHNOLOGICAL CHANGE, AND WAGE INEQUALITY: THE CASE OF MEXICO*

BY ANDREA WADDE

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Following the U.S.–Mexico trade integration, the skill premium rose dramatically in Mexico. Standard trade theory predicts the skill premium in a skill-scarce country should fall—not rise—following such an integration. This article reconciles theory and data by building a model in which intermediate producers in Mexico begin to produce for the U.S. supply chain following liberalization. To do so, they must rent ideas from the United States, which are more skill-intensive, thus increasing the skill premium. This mechanism is supported by the data: Mexican plants and industries that trade more with the United States rent more U.S. technology and have higher skill premia.

1. INTRODUCTION

Standard trade theory has stark predictions for how factor prices should respond to trade integration between a skill-scarce and a skill-abundant country. In particular, models that are based on the Heckscher–Ohlin (henceforth H–O) theory predict that the ratio of wages paid to skilled versus unskilled workers (the skill premium) should rise in the skill-abundant country and fall in the skill-scarce country when the two countries open to trade with one another. A puzzle that has arisen in the context of this prediction is that when integrating with the world economy, many skill-scarce countries instead experience rising skill premia. Mexico is the canonical example of a country whose skill premium not only rose, but rose by much more than that of its more-developed counterpart, the United States, during the period after Mexico opened to trade. These observations have led researchers to propose several mechanisms by which trade liberalizations induce an increase in the relative demand for skill. In this article, I add to this literature by arguing that trade liberalization, by stimulating investment in skill-biased technologies and facilitating cross-border diffusion of these technologies, plays a significant role in explaining the aforementioned facts. I use the case of the Mexican trade liberalization and integration into the supply chain of American companies to explore the impact that technological transfer, which takes place as a part of this integration, has on the wages of workers in Mexico. I show that, although a reduction in tariffs may cause an endogenous increase in domestic technologies, a key component to the increase in Mexico’s skill premium is the diffusion of technology from the United States to Mexico.

I begin by providing empirical evidence of the importance of two policy levers in determining the change in the skill premium in Mexico: tariffs and intellectual property rights (IPR)

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*Manuscript received May 2018; revised August 2020.
1 I am indebted to Tim Kehoe and Ellen McGrattan for valuable advice and guidance. I would also like to thank Cristina Arellano, Ariel Burstein, Harold Cole, Alessandro Dovis, Larry Jones, Yoshinori Kurokawa, Fabrizio Perri, Collin Rabe, Joe Steinberg, David Wiezer, the participants of the Trade workshop at the University of Minnesota, and anonymous referees for their useful comments. Tyler Pike provided excellent research assistance, and the University of Minnesota Doctoral Dissertation Fellowship provided financial support. All errors are my own. Please address correspondence to: Andrea Waddle, University of Richmond, 28 Westhampton Way, Richmond, VA 23173, U.S.A. Phone: +804-662-3165, Fax: +804-289-8878. E-mail: awaddle@richmond.edu.
2 See Goldberg and Pavcnik (2007) for a nice summary of this literature.

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ABSTRACT

Using a case study, this paper explores the pedagogy and logistical best practices of leading short-term study trips to the indigenous highlands of Guatemala. The goals of community-engagement are to have students: 1) interact with people of different cultural, linguistic, political, and economic world views, expanding their range of diversity-training; and 2) think critically about poverty and human agency in a global context. Logistical considerations are a key component of the learning experience when markets suffer from asymmetric information and moral hazard. This paper contributes to the literature by highlighting the ways that planning, programming, and logistics need to be woven into sustainable approaches to community
Fast Poisson estimation with high-dimensional fixed effects

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Abstract. In this article, we present `ppmlhdfe`, a new command for estimation of (pseudo-)Poisson regression models with multiple high-dimensional fixed effects (HDFE). Estimation is implemented using a modified version of the iteratively reweighted least-squares algorithm that allows for fast estimation in the presence of HDFE. Because the code is built around the `reghdfe` package (Correia, 2014, Statistical Software Components S457874, Department of Economics, Boston College), it has similar syntax, supports many of the same functionalities, and benefits from `reghdfe`'s fast convergence properties for computing high-dimensional least-squares problems. Performance is further enhanced by some new techniques we introduce for accelerating HDFE iteratively reweighted least-squares estimation specifically. `ppmlhdfe` also implements a novel and more robust approach to check for the existence of (pseudo)maximum likelihood estimates.

Keywords: st0589, ppmlhdfe, reghdfe, Poisson regression, high-dimensional fixed effects

1 Introduction

Poisson regression is now well established as the standard approach to model count data. However, it is also gaining popularity as a viable alternative for estimation of multiplicative models where the dependent variable is nonnegative. Commonly, these models are fit by linear regression applied to a log-transformed dependent variable. But, as with ordinary least squares (OLS), the only assumption required for consistency of the Poisson regression estimator is the correct specification of the conditional mean of the dependent variable (Gourieroux, Monfort, and Trognon 1984). In this setting, Poisson regression becomes Poisson pseudomaximum likelihood (PPML) regression. Gourieroux, Monfort, and Trognon’s (1984) results greatly extend the realm of application of Poisson regression because there is no need to specify a distributional assumption for the dependent variable. Therefore, application is no longer restricted to count data, so PPML can be applied to any dependent variable with nonnegative values without having to explicitly specify a distribution for the dependent variable. Moreover, unlike the log-linear model, PPML regression provides a natural way to deal with zero values on the dependent variable. Yet another advantage of PPML regression versus log-linear regression is that in the presence of heteroskedasticity, the parameters of log-linearized models fit by OLS are inconsistent (Santos Silva and Tenreyro 2006). In this context, using robust standard errors to mitigate concerns about heteroskedasticity will lead to incorrect inference because OLS estimators are not consistent in the first place.
An Excel Calculator for Determining Student Loan Information

Tom Arnold, John H. Earl and Cassandra D. Marshall
The Journal of Wealth Management Spring 2020, 22 (4) 133-139; DOI: https://doi.org/10.3905/jwm.2019.1.092

Abstract

A student loan calculator is developed to determine the weighted-average interest for multiple student loans and payout information for an individual or a consolidated student loan. With any three of four inputs—loan amount, interest rate as an annual percentage rate, monthly payment, loan maturity—the remaining input is generated. This structure for the calculator allows for multiple payment scenarios to be considered.

Key Findings

- Financial planning calculators for student loan repayment.
- Calculator for determining weighted interest rate for student loan repayment.
- Information to consider when consolidating student loans.

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Examining the Institutional and Organizational Antecedents to Organizational Participation in Environmental Management

Olivia Aronson1 and Matthew LaFont2

Abstract
Research into the institutional antecedents of organizational engagement in environmental management (EM) has revealed that organizations respond heterogeneously to homogenous institutional pressures. In this article, we employ complementary institutional and entrepreneurial perspectives to build upon research that examines how organizational characteristics may influence the institutional pressure to EM relationship. Specifically, we examine the moderating effect of an organizational entrepreneurial orientation (EO) upon the organizational visibility to EM relationship. Results from a sample of 252 public firms over a 10-year period confirm that organizational visibility significantly increases the rate of organizational participation in EM. Additionally, support is found for a positive aggregate EO moderation effect and significant accelerating moderating effects of three EO dimensions: autonomy, competitive aggressiveness, and innovativeness.

Keywords
entrepreneurial orientation, environmental management, institutional theory

Charles Mann (2018) called the environmental movement the only successful ideology to emerge from the 20th century. While the statement may be purposefully dramatic, there is little doubt of the rising social pressure for individuals and organizations to address growing environmental concerns. Within the environmental movement, environmental management (EM)—organizational efforts to reduce or eliminate the damage created by a firm to the natural environment in which it operates (adapted from Hoffmann et al., 2012)—is particularly salient. A recent CDP report suggests that companies are responsible for over 70% of carbon emissions, and further indicates that the majority of climate change can be attributed to just 100 companies (Griffin, 2017). These findings highlight the importance of understanding the factors that influence organizational engagement in EM.

EM research is often conducted using an institutional perspective, which employs institutional theory to analyze the pressures of powerful institutional stakeholders—“any group or individual

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Value distribution to stakeholders: The influence of stakeholder power and strategic importance in public firms

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ARTICLE INFO

Keywords:
Stakeholder theory
Value distribution
Power
Strategic importance

ABSTRACT

Stakeholder strategy research seeks to explain how various stakeholder contexts affect the ways firms treat their stakeholders and the effects of these choices on overall firm performance. The dominant logic in this conversation frames a two-step process in which value is created by a firm before managers can distribute that value among the stakeholders. The stakeholder’s power, or its ability to threaten the firm in some way, is commonly considered the primary factor in the second step value distribution process. However, we develop and test an argument that the ways managers engage with stakeholders to co-create value result in the stakeholder’s strategic importance having more influence than power in the value distribution decision. The logic underlying this argument reverses the familiar two-step process so that it starts with value distribution. The implication is that firms arguably improve their overall performance by distributing more value to those stakeholders who are strategically important than to those stakeholders who exploit their bargaining power to threaten the firm. We find support for this novel explanation with an original dataset covering every firm that completed an IPO in Brazil between 2003 and 2017.

Introduction

Firms co-create value across a network of actors who each have a stake in the processes and outcomes of the firm (Freeman, 1984; Freeman et al., 2007; Freeman et al., 2010). In striving to understand and explain the factors that drive firm-level performance, strategy scholars develop and test theories that encompass these processes through which value is co-created, how the value is distributed among stakeholders, and the effects of value distribution schemes on subsequent value co-creation (Barney and Harrison, 2018). Of these processes, this study contributes to the understanding of how managers decide to distribute value to stakeholders. The mainstream literature points to stakeholder bargaining power as a fundamental factor (Mitchell et al., 1997; Neville et al., 2011) or even the most important factor (Parent and Deephouse, 2007) in manager’s value allocation decisions. However, consensus on this issue has not been reached (Bridoux and Vishwanathan, 2018). This unfinished discussion is the theoretical gap addressed in this paper. Building on a new stream of research, we will argue that strategic importance is a stronger factor in manager’s value distribution decisions.

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https://doi.org/10.1016/j.lrp.2019.05.003
Received 1 March 2018; Received in revised form 22 March 2019; Accepted 7 May 2019
Available online 10 July 2019
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Aggregate Perceptions of Intrateam Conflict and Individual Team Member Perceptions of Team Psychological Contract Breach: The Moderating Role of Individual Team Member Perceptions of Team Support

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ABSTRACT

We seek to contribute to our very limited knowledge base about a relatively new type of psychological contract: team psychological contracts. We argue that aggregate perceptions of intrateam task and relationship conflict are positively associated with individual team member perceptions of team psychological contract breach. We also argue that individual team member perceptions of team support mitigate the respective relationships between aggregate perceptions of intrateam task and relationship conflict and individual team member perceptions of team psychological contract breach. Using 306 team members across 76 teams from 18 organizations, we find that aggregate perceptions of intrateam task and relationship conflict are both positively associated with individual team member perceptions of team psychological contract breach. However, we find that individual team member perceptions of team support only mitigate the relationship between aggregate perceptions of intrateam relationship conflict and individual team member perceptions of team psychological contract breach. Theoretical and practical implications are discussed.

Keywords:
Psychological contract
Conflict
Support
Team
Group

Percepción agregada del conflicto en equipo y de cada miembro del mismoacerca de la ruptura del contrato psicológico de equipo: el papel moderador de la percepción de apoyo del equipo por parte de sus miembros

RESUMEN

Pretendemos contribuir a nuestra muy limitada base de conocimiento sobre un tipo relativamente nuevo de contrato psicológico: el de equipo. Sostenemos que la percepción agregada de la tarea en el equipo y del conflicto en las relaciones se asocia positivamente con la percepción de la ruptura del contrato psicológico de equipo por parte de sus miembros. También sostenemos que la percepción de apoyo del equipo por parte de sus miembros mitiga la relación entre la percepción agregada de la tarea en equipo y del conflicto relacional y la percepción de los miembros individuales acerca de la ruptura del contrato psicológico de equipo. Utilizando 306 miembros de 76 equipos de 18 empresas vimos que la percepción agregada de la tarea en equipo y del conflicto relacional se asocia positivamente a la percepción por parte de los miembros individuales de la ruptura del contrato psicológico de equipo. No obstante, vemos que la percepción de apoyo del equipo por parte de los miembros individuales solo mitiga la relación entre la percepción agregada del conflicto relacional en el equipo y la percepción de la ruptura del contrato psicológico de equipo por parte de sus miembros. Se abordan las implicaciones teóricas y prácticas.

Today’s turbulent business environment, characterized by international competition and technological change, has resulted in dramatic and largely unfavorable changes to the employer-employee relationship (Jiang & Liu, 2015). These changes and the resulting consequences are often explained in terms of psychological contracts theory, which suggests that employees develop schemas related to what they perceive their organizations owe them with respect to promotions, development, and other factors, in exchange for their efforts on behalf of the organization (Rousseau, 1995, 2001). From a psychological contracts perspective, frequent change tends to result in psychological contract breach, which occurs when employees perceive that the organization has failed to fulfill its obligations to them (Morrison & Robinson, 1997). Breach is important because it causes employees to experience negative emotions that lead to a desire for revenge and, ultimately, counterproductive behavior and withdrawal (Coyle-Shapiro et al., 2019; Zhao et al., 2007).
Context and social exchange: perceived ethical climate strengthens the relationships between perceived organizational support and organizational identification and commitment

Thomas J. Zagenczyk, Russell L. Purvis, Kevin S. Cruz, Christian N. Thoroughgood & Katina B. Sawyer
Published online: 06 Jan 2020

Abstract

Effective human resource management involves maximizing the value gained from human resource practices and policies. Past research shows that practices and policies are beneficial because they strengthen the employer-employee relationship. We help contextualize research on this important relationship by exploring the moderating effect of perceived ethical climate on the relationships between perceived organizational support and three cognitive and affective employee outcomes: organizational identification, affective organizational commitment, and
Editorial

Stakeholder Theory at the Crossroads

Jay B. Barney¹ and Jeffrey S. Harrison²

Abstract
The stakeholder perspective has provided a rich forum for a variety of debates at the intersection of business and society. Scholars gathered for two consecutive years, first in North America, and then in Europe, to discuss the major issues surrounding what has come to be known as stakeholder theory, to attempt to find common ground, and to uncover areas in need of further inquiry. Those meetings led to a list of “tensions” and a call for papers for this special issue to help address them. In this article, we introduce the resulting articles and provide some brief commentary on their importance. We end with a few of our own observations about the stakeholder perspective and stakeholder research.

Keywords
new venture formation, performance measurement, stakeholder management, stakeholder power, stakeholder theory, trust, vertical supply chain

A stakeholder perspective of the firm has existed in the modern business literature for about half a Century (Freeman, Harrison, Wicks, Parmar, & de Colle, 2010). Although it has been used to guide both public policy and business decisions, there is no consensus about its general applicability. Some hold the view that stakeholder theory has addressed most of its critical issues

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RESEARCH ARTICLE

The passion bug: How and when do leaders inspire work passion?

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Summary
Drawing from signaling theory, we propose a work passion transfer model where leaders' passion is transmitted to employees through the former's leadership style and is contingent on employees' perceived importance of performance to self-esteem (IPSE). Data from 201 supervisor–employee dyads from the health-care industry show that leaders' harmonious passion led to employees' harmonious passion through charismatic leadership, whereas contingent reward leadership accounted for the transfer of obsessive passion; IPSE did not play a moderating role for either form of passion. Results from a supplementary study further reveal that the link between leadership and employee passion operated through employees' perception of leader passion and that employees' IPSE accentuated for the relationship between perceived leader obsessive passion and employees' obsessive passion. This study advances research in work passion, leadership, and signaling theory and provides important implications for managerial practice.

KEYWORDS
charismatic leadership, contingent reward leadership, harmonious passion, importance of performance to self-esteem, obsessive passion, passion transfer, signaling theory, work passion

1 | INTRODUCTION

The motivational construct of work passion, defined as one's strong inclination toward work that the individual loves and that is part of one's identity (Vallerand, 2015; Vallerand, Houfffort, & Forest, 2014), has received growing attention in both academic literature and the business press (e.g., Hagel, Brown, Ranjan, & Byler, 2014; Vallerand & Houfffort, 2019). Cultivating passion at work is viewed as "a cornerstone of talent development" (Hagel et al., 2014) because of the positive impact work passion has on individuals' work attitudes, behaviors, and well-being (Vallerand et al., 2014). Surprisingly, however, scant knowledge exists on how work passion can be fostered in the workplace. The few studies on work passion antecedents have primarily adopted an individual-focused approach, arguing that the roots of passion stem from individuals' preexisting capacities and abilities (e.g., signature strengths), personality traits (e.g., autonomy personality), and identity centrality and salience (Forest et al., 2012; Murnieks, Mosakowski, & Cardon, 2014; Vallerand et al., 2006). However, self-determination theory, which provides the theoretical underpinning for the work passion construct, suggests that such an individual-focused approach can be incomplete, given that social and/or environmental influences also "catalyze both within- and between-person differences" in the person's motivation (Ryan & Deci, 2000, p. 68; Vallerand et al., 2014), thereby warranting investigations of environmental antecedents of work passion.

To address this missing perspective in passion research, we examine the role of leaders and their work passion as an environmental factor that can influence employees' work passion. Of the multitude of situational forces that can shape employee passion, leaders are particularly salient because in their role as "entrepreneurs of identity" (Reicher, Haslam, & Hopkins, 2005, p. 547), they have profound influence on subordinates' self-concepts and identities (Lord, Brown, & Feilberg, 1999) and can be instrumental in shaping the extent to which work becomes part of employees' identity (a fundamental element of...
RESEARCH ARTICLE

Passion at work: A meta-analysis of individual work outcomes

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Summary
Academic research on passion is much more complex than the extant literature or popular press portray. Although research on work-related passion has progressed rapidly over the last decade, much remains unknown. We are now just beginning to recognize the different theoretical underpinnings and empirical operationalizations that work passion research has adopted, and the confusion this has generated hampers our understanding of the construct and its relationship to workplace outcomes. Accordingly, we use a meta-analytic examination to study the work-related outcomes of three dominant literature streams of work passion: general passion, dualistic passion (i.e., harmonious passion and obsessive passion), and role-based passion (i.e., passion for developing, passion for founding, and passion for inventing). We employ meta-analytic techniques using random effects modeling summarizing 106 distinct samples across 87 manuscripts totaling 384 effect sizes (total unique N = 38,481; 43.54% women, average age is 38.04). Importantly, we highlight how each of the three streams of passion relates to various outcomes differently, illuminate several important heretofore undetected nuances in passion research, and provide a roadmap for future inquiry on passion at work.

KEYWORDS
dualistic model of passion, entrepreneurial passion, general work passion, meta-analysis, role-based passion

1 | INTRODUCTION

Contemporary perspectives on passion, both in the academic literature and the popular press, support the premise that passion for one’s work is generally desired due to a plethora of positive outcomes, including perceived meaning, persistence, overall success, enthusiasm, financial gain, and happiness (Vallerand & Houlfort, 2019; Vallerand, Houlfort, & Forest, 2014). When passion is lacking, individuals are urged to “rediscover their passion for work and life” (Boyatzis, McKee, & Goleman, 2002, p. 5). Given the apparent consensus as to the positive aspects of passion, it is perhaps not surprising that passion research has progressed rapidly over the last decade, with a proliferation of passion-focused work emerging in the form of hundreds of popular press books (e.g., Anderson, 2010; Gostick & Elton, 2014; Guillebeau, 2012; Miller, 2009) as well as scholarly publications.

However, a closer look at studies related to passion at work reveals a surprisingly nuanced literature. On the popular press side, a recent New York Times opinion piece asked, “Should Work Be Passion, Or Duty?” (DeBrabander, 2019). On the academic side, distinct streams of research on work passion have emerged and progressed independently of one another, with little integration or cross-pollination across streams. For instance, some scholars define and measure work passion as simply love of one’s work (Baum & Locke, 2004), whereas others construe passion as involving not only positive feelings but also meaning and salience to one’s identity (e.g., Cardon, Wincent, Singh, & Drnovsek, 2009). As another example of the field’s divergence, some studies found that passion is positively related to firm performance (e.g., Ho & Pollack, 2014), whereas others failed to find a linkage to firm growth (e.g., Baum & Locke, 2004). Problematically, this divergence in construct definition, empirical measurement,
The “Right” recipes for security culture: a competing values model perspective

Hwee-Joo Kam, Thomas Mattson, Dan J. Kim

Information Technology & People
ISSN: 0959-3845
Publication date: 18 September 2020

Abstract

Purpose
This study argues that the effect of perceived organizational culture on the formation of security-related subjective norms and the level of compliance pressure will vary based on how the employees perceive their organization's cultural values. These perceptions reflect on the assumptions and principles that organizations use to guide their security-related behaviors. To make these arguments, we adopt the competing values model (CVM), which is a model used to understand the range of organizational values and resulting cultural archetypes.

Design/methodology/approach
This study conducted a survey of working professionals in the banking and higher education industries and used partial least squares (PLS)-structural equation model (SEM) to analyze the data. In a series of post hoc analyses, we ran a set of multi-group analyses to compare the perceived organizational cultural effects between the working professionals in both industries.

Findings
Our study reveals that perceived organizational cultures in favor of stability and control promoted more positive security-related behaviors. However, the different effects were more pronounced when comparing the effects between the working professionals in both industries.

Originality/value
This study is one of the few that examines which cultural archetypes are more effective at fostering positive security behaviors. These findings suggest that we should be cautious about generalizing the effects of organizational culture on security-related actions across different contexts and industries.
The liability of disruption

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Abstract
Research Summary: We study the internationalization-related legitimacy challenges of firms with disruptive business models by using a case comparison of leading sharing economy companies Airbnb and Uber. We show that they are insulated from many traditional legitimacy challenges to multinationals entering host markets, but exposed to others that have not been noted previously. Specifically, we identify a novel market-entry legitimacy challenge, “liability of disruption,” which manifests as regulatory, incumbent business, and societal pushback against firms with disruptive business models. After presenting our cross-case analysis, we theorize about the nature and impacts of these three distinct but interconnected forms of host country institutional pushback on firms’ ability to achieve and maintain legitimacy, and how they are driven by national governance characteristics.

Managerial Summary: Sharing economy companies Airbnb and Uber have engaged in rapid processes of global growth, but their practices and right to operate have been challenged by a variety of host country stakeholders. This study shows that their international expansion efforts have been affected by emergent regulatory scrutiny, incumbent businesses’ opposition, and other societal concerns about their impacts on employees, customers, competitors, and the communities where they operate. We label these challenges as...
National culture and international business: A path forward

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Abstract
The anniversary of Kogut and Singh’s construct of “cultural distance” is a good time to reflect on this immensely popular but flawed construct, assess the efficacy of the remedies offered for its reform and refinement, and chart an alternative approach that represents a departure from distance as the dominant paradigm with which to view and analyze the impact of national culture on cross-border business. The proposed alternative, a contact-based framework shifts attention from what sets cultures apart towards the actual cultural interface that firms and their executives experience when participating in an international transaction. With this lens, the cultural exchange is regarded as an evolving interactional process of engagement, which commences prior to a transaction and proceeds through the life of the inter-party arrangement and beyond, and whose potential to yield negative – or positive – outcome is subject to specific contingencies. Implications for theory, methodology, and practice are delineated.

Keywords: cultural distance; cultural friction; paradigm shift; contact-based framework; national culture

INTRODUCTION
Cuypers, Ertug, Heugens, Kogut, and Zou (2018) and Maseland, Dow, and Steel (2018) commemorated 30 years to the publication of Kogut and Singh’s (1988) paper that coined the term “cultural distance” (CD) and generated a stream of research that was to form the dominant perspective on national culture in international business (IB). Together with an Editorial by Beugelsdijk, Ambos, and Nell (2018a), the papers assessed the contribution of the Kogut and Singh’s (1988) article and offered ideas for improvement and refinement of a construct whose popularity has not dimmed in the face of ongoing criticism. Not only does the construct remain “much loved” (Zaheer, Schomaker, & Nachum, 2012: 18), but it has engendered the view that “almost...no international business (IB) can be complete unless there is an explicit variable controlling for cultural distance” (Cho & Padmanabhan, 2005: 309) and, even more broadly, that “international management is management of distance” (Zaheer et al., 2012: 19).
‘CULTURE EATS STRATEGY FOR BREAKFAST’: USE AND ABUSE OF CULTURE
IN INTERNATIONAL STRATEGY RESEARCH

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Acknowledgement: The authors would like to acknowledge the financial support provided by
the University of Macau Research Committee under MYRG projects (Grant Number: 2016-00207-FBA; Grant Number: 2018-00171-FBA) and the National Natural Science Foundation of China (No. 71728003).
An iterative learning and inference approach to managing dynamic cyber vulnerabilities of complex systems

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ARTICLE INFO

Keywords:
Cybersecurity
Cyber vulnerability
System resilience
Markov model
Probabilistic inference
Statistical learning

ABSTRACT

As modern infrastructure systems become increasingly reliant on cyber technologies and continue to be integrated with physical systems, managing risks from deliberate and non-deliberate sources is a significant research challenge. Unlike strictly physical systems, cyber-enabled physical systems are influenced by dynamic and evolving technologies, environments, and attack mechanisms. As a result, vulnerabilities are rapidly changing and difficult to detect and manage. While there is recent interest in the dynamic properties of performance through resilience analysis, limited research addresses the dynamic nature of cyber-system vulnerability. This paper presents an iterative data-driven learning approach to evaluate and manage vulnerabilities for such complex systems. These time-varying system health characteristics may not be directly observable, but can be inferred using observable indicators. The approach recognizes that multiple types of vulnerabilities need to be included in a holistic system health assessment. The methods are applied to the Common Vulnerability Scoring System (CVSS) database containing thousands of documented cybersecurity vulnerabilities over nearly two decades. We acknowledge the dynamic properties of cyber vulnerability, while also inferring system health using observable data and hidden operational states. The results will be of interest to managers of large-scale cyber-enabled physical systems who are seeking to prioritize system health investments.

1. Introduction

Cyber attacks have potential to cause significant disruptions to the performance of cyber-enabled physical infrastructure systems. As the importance of cyber infrastructure health becomes increasingly apparent, numerous efforts are underway globally to secure and protect critical national infrastructure systems. For example, in 2018, the United States launched the Cybersecurity and Infrastructure Security Agency (CISA), promoting cybersecurity assessment for the support of critical infrastructures and operations [15]. Similarly, in 2019, the European Union Cybersecurity Act created a permanent mandate for the European Union Agency for Cybersecurity [22]. Within the agency’s scope is the intent to protect the cybersecurity network and improve cyber resilience. With increased attention to cybersecurity at a national level, it is critical for government agencies to understand the state of health of their entire cyber infrastructure system. This is a challenging endeavor, as historically, cyber-system modeling literature has addressed security and vulnerability at an organizational level, largely focusing on various software-specific vulnerabilities.

The U.S. National Science Foundation (NSF) defines cyber-physical systems as “engineered systems that are built from, and depend upon, the seamless integration of computation and physical components” [49]. Consider for example reports of software security flaws in vehicles that allow for remote attacks on physical control of vehicles [45], cyber-attacks that can halt operations in shipping, pharmaceuticals, oil and gas, and other industries [25,56], or large-scale data breaches [32]. Globally, these cyber-enabled physical systems are critical for the movement of people, goods, and services. When compromised, these systems can have disastrous impacts on the safety, security, and economic well-being of organizations [11,39]. Since application domains comprise of most critical infrastructure systems (such as transportation, energy, communications [18]) and private sector operations involving severe potential health/safety consequences [34,57], it is critical for owners of these systems to objectively manage system vulnerability and investments as part of enterprise-level risk management processes.

Managing risk for these cyber-enabled physical systems also poses several preventive, reactive, and proactive cybersecurity challenges. These systems involve technologies that are rapidly changing and adapting, with notable recent emergence of: 1) cloud computing [44], 2) large-scale data availability [37], 3) Internet of Things (IoT)
Workforce/Population, Economy, Infrastructure, Geography, Hierarchy, and Time (WEIGHT): Reflections on the Plural Dimensions of Disaster Resilience

Joost Santos, Christian Yip, Shital Thekdi, and Sheree Pagsuyoin

The concept of resilience and its relevance to disaster risk management has increasingly gained attention in recent years. It is common for risk and resilience studies to model system recovery by analyzing a single or aggregated measure of performance, such as economic output or system functionality. However, the history of past disasters and recent risk literature suggest that a single-dimension view of relevant systems is not only insufficient, but can compromise the ability to manage risk for these systems. In this article, we explore how multiple dimensions influence the ability for complex systems to function and effectively recover after a disaster. In particular, we compile evidence from the many competing resilience perspectives to identify the most critical resilience dimensions across several academic disciplines, applications, and disaster events. The findings demonstrate the need for a conceptual framework that decomposes resilience into six primary dimensions: workforce/population, economy, infrastructure, geography, hierarchy, and time (WEIGHT). These dimensions are not typically addressed holistically in the literature; often they are either modeled independently or in piecemeal combinations. The current research is the first to provide a comprehensive discussion of each resilience dimension and discuss how these dimensions can be integrated into a cohesive framework, suggesting that no single dimension is sufficient for a holistic analysis of a disaster risk management. Through this article, we also aim to spark discussions among researchers and policymakers to develop a multicriteria decision framework for evaluating the efficacy of resilience strategies. Furthermore, the WEIGHT dimensions may also be used to motivate the generation of new approaches for data analytics of resilience-related knowledge bases.

KEY WORDS: Disaster risk assessment; disaster risk management; engineering analytics; resilience

1. INTRODUCTION

Recent research studies and applications in the field of disaster risk management have emphasized the importance of managing system resilience (Abe & Ye, 2013; Biedrzycki & Koltun, 2012; Carpenter, Brian, Marty, & Nick, 2001; Committee on Increasing National Resilience to Hazards and Disasters, 2012; Rose, 2009). In particular, applications of resilience have markedly grown in the field of disaster risk management, motivating the enhanced ability of organizations to adapt, reorganize, and efficiently recover from disruptive events (Santos, Herrera, Yu, Pagsuyoin, & Tan, 2014). However, most of the available literature sources treat the dimensions of resilience as isolated concepts across multiple disciplines (MacAskill & Guthrie, 2014). Few of these...
A Risk-Science Approach to Vulnerability Classification

Shital A. Thekdi1,* and Terje Aven2

Advancements in the literature and recent events have highlighted the need for recognizing and managing system vulnerabilities. However, established definitions of vulnerability typically involve only static concepts that are limited to measurement of system characteristics. Advancements in risk modeling, combined with the dynamic nature of data availability, and processing call for the need to understand the various dimensions and time-dependent properties of vulnerability within risk-informed decision making. There is need to: (1) Understand and classify aspects of vulnerability that exist in various systems, such as related to engineering, business, and healthcare, while recognizing both properties of the system and associated knowledge, (2) reconcile these definitions of vulnerabilities with existing concepts, such as sensitivity analysis and fragility, and (3) explore the implications of various types of vulnerability on risk management decisions. The main contributions of this work include classifying dynamic characteristics of system vulnerability and leveraging information about the multidimensional properties of vulnerability within risk management decisions that apply to a collection of risk events. As a proof of concept, we illustrate the vulnerability classification on the COVID-19 pandemic. This article will be of interest to both risk researchers and practitioners.

KEY WORDS: COVID-19; risk science; vulnerability

1. INTRODUCTION

This article discusses the vulnerability concept in a risk analysis and management context. The literature has studied many aspects of this concept, both as a generic term reflecting types of conditional risk given a disturbance, and how it is used in different practical situations and cases. Consider the following three risk scenarios:

Scenario #1: A transportation network with a single collision, causing congestion on the connected roadways.

Scenario #2: A region, such as Puerto Rico, that is impacted by a major hurricane. The hurricane causes thousands of deaths, widespread damage to the infrastructure, and struggles to recover due to the terrain, infrastructure conditions, resources, and political factors.

Scenario #3: An illness, such as the recent COVID-19, that is allegedly sourced from a single location and rapidly spreads across the globe, causing deaths, economic fluctuations, supply chain disruptions, and other widespread repercussions.

These three scenarios represent completely different systems and levels of knowledge. Scenario #1 illustrates a widely studied and carefully engineered system, such that a disruption of this caliber can be modeled and managed using existing tools and management protocols. Scenario #2 illustrates a system that is somewhat documented, with a disruption that is unprecedented, but known to be possible for the region. Scenario #3 involves a somewhat documented system, a disruption that is known to be possible, with rapid widespread consequences,
Exploring “high tech” and “high touch” interaction capabilities: aligning the IT portfolio with customer and supplier relationships

Peter Ekman, Peter Dahlin, Cecilia Erixon, Steven Thompson

Information Technology & People
ISSN: 0959-3845
Publication date: 19 May 2020

Abstract

Purpose
To explore the emergent characteristics of IT portfolios in business-to-business (B2B) firms. The goal is to develop a model that clarifies what interaction capabilities B2B firms develop and to what form of IT this corresponds to.

Design/methodology/approach
We apply an a priori conceptual framework that is based on the Industrial Marketing and Purchasing (IMP) Group’s theoretical focus on business relationships. The framework depicts the business relationship as dealing with uncertainty and equivocality as well as building and upholding reliance and trust. We utilize a case study approach involving a focal firm and ten of its customers and suppliers. Building on 60 interviews, field observations and archival data, we analyze interviewee responses and the complementary data to evaluate the role of IT in supporting or automated various aspects of organizational relationships.

Findings
Results show how “high tech” and “high touch” relate to different interaction capabilities, which firms develop based on the characteristics of their business relationships. Although IT is associated with “high tech” and “high touch” interaction capabilities, some forms of IT are deployed to support the former, while other forms support the later. Both forms of technology-enabled interaction capabilities require investment, and firms must balance investment costs against the value created by improved interaction capabilities.

Originality/value
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Digital transformation of global business processes: the role of dual embeddedness

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Abstract
Purpose – While much existing research on multinational corporation (MNC) digital transformation has followed a linear design and implementation logic using cross-sectional data, the multiple and divergent needs of headquarters (HQ) and subsidiaries suggest that MNC digital transformation actually involves a more iterative journey. The purpose of this paper is to apply the theoretical perspective of embeddedness to better define the complexities of MNC digital transformation, and identify how HQ and subsidiaries can navigate the complexities.

Design/methodology/approach – This paper presents a longitudinal multi-case study of five Forbes Global 2000 firms that are HQ in Europe with large subsidiaries in the USA. The authors conducted in-depth interviews with 26 senior executives at HQ and subsidiaries over a 15-month period.

Findings – The process of digital transformation is significantly influenced by internal embeddedness (relationship of HQ with subsidiaries and across subsidiaries) and external embeddedness (relationship of subsidiaries with their local markets), and also by strategy, financial and technology considerations. While HQ and subsidiaries have different perspectives, an understanding of these influences can help HQ and subsidiaries navigate digital transformation.

Research limitations/implications – HQ and subsidiaries can apply insights from this research to navigate the complexities of digital transformation.

Originality/value – This paper demonstrates that embeddedness is a useful theory to understand the complexities of MNC digital transformation.

Keywords Embeddedness, Digital, External, Global, Headquarters, Internal, MNC, Multinational, Subsidiary, Transformation

Paper type Research paper

1. Introduction
Multinational corporations (MNCs) are embarking on a digital transformation of their global business processes to improve competitiveness and profitability (Mithas et al., 2017). In this digital transformation, MNCs are implementing and upgrading information technology (IT) and internet-enabled applications to achieve operational efficiencies (Whitaker et al., 2017), reshape relationships with customers and integrate with suppliers (Kim et al., 2018), resulting in profound impacts to corporate strategy and financial performance (Mithas et al., 2012).

For IT and internet-enabled applications, MNC headquarters (HQ) often choose commercial off-the-shelf solutions from vendors such as Microsoft, Oracle and SAP, that function as de facto global standards (Ekman et al., 2014). However, the standardization requirements of these solutions limit the ability of MNCs to make market-specific adaptations requested by subsidiaries, which then requires HQ to evaluate tradeoffs
Making energy metrics relevant to service firms: from energy conservation to energy productivity

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ARTICLE INFO
Article history:
Received 1 October 2019
Received in revised form 6 February 2020
Accepted 7 February 2020
Available online 9 February 2020

Handling Editor: Cecilia Maria Villas Boas de Almeida

Keywords:
Energy productivity
Energy conservation
Service organizations
Corporate social responsibility
Abductive research

ABSTRACT
Although energy conservation and reduction in environmental impact are on the international and most national agendas, service firms rarely include energy consumption metrics in their strategic decision-making. One reason for the omission is that for service industries, firm level energy utilization is most commonly measured in kilowatt hours per square meter of office space where changes often related to the space rather than the firm performance. The measure also presents several problems for firms in service industries. First, energy conservation and reduction may be counterproductive for service firms that are growing and require energy to sustain that growth. Second, it may not relate to national and international goals which are often focused on the amount of carbon dioxide produced generating energy than the total amount of energy consumed. Third, it treats energy as a utility rather than a resource in firms’ value creation. Results from a field study focused on service firms in Sweden suggests that focusing on energy productivity overcomes the limitations of existing measures and produces positive results. By conceptualizing energy productivity as output per unit of energy, we create a conservation metric that enables service firms to measure their contributions to energy consumption relative to national economic growth. As a result, energy productivity aligns the interests of service organizations with those of policy makers and conservationists.

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1. Introduction

Energy policy has emerged as a significant social and governmental concern shared by local, national and international organizations (Press and Arnould, 2009). In industrial sectors where firms use significant amounts of energy, well-developed systems and key performance indicators (KPIs) for firms to measure and report their energy efficiency have been developed and adopted (Bajpai et al., 2018; Blomberg et al., 2012; Bunse et al., 2011). However, in most developed countries the service sector is the dominant form of business and the single largest component of the national economy (Furrer and Sollberger, 2007). In contrast to industrial firms, most service firms do not have manufacturing or production processes that require large amounts of energy. Instead these firms utilize factors of production such as office space, retail areas or restaurant areas, employees, and information and communication technologies. Other than the generic goal of “energy conservation” and highly aggregated estimates of energy use, service firms do not have effective energy consumption measures that reflect organizational priorities and national policy objectives.

Service industries are having a growing impact on economies, but they are seldom the focus of environmental impact studies (Wang et al., 2020; Ma et al., 2019; Shrike et al., 2013). While it may be expected that corporations would focus on profits while governmental or non-governmental organizations (NGO) will focus on energy conservation, we find that corporate sustainability managers tend to focus exclusively on energy conservation, conceived and measured narrowly as synonymous with gross energy reduction. That is, we find a conflict even within organizations: i.e., sustainability managers vs. other executives. Unfortunately, existing measures available to service firms such as kilowatt-hours per-square meter (kWh/m²) or kilowatt-hours per-employee (kWh/employee), although easy to obtain, can be detrimental to the bottom line and encourage environmentally damaging practices.

Based on a field study that built on a close researcher-
The treatment of chronic diseases consumes 86% of U.S. healthcare costs. While healthcare organizations have traditionally focused on treating the complications of chronic diseases, advances in information technology (IT) and analytics can help clinicians and patients manage and slow the progression of chronic diseases to result in higher quality of life for patients and lower healthcare costs.

We build on prior research to introduce the notion of temporal displacement of care (TDC), in which IT and analytics create healthcare value by displacing the time at which providers and patients make interventions to improve healthcare outcomes and reduce costs. We propose that healthcare value is created by strategic actions taken at specific points-in-time during the treatment process. Our theoretical development identifies TDC mechanisms through which IT and analytics displace later high cost interventions in favor of earlier preventative procedures.

We test our hypotheses using four years of data on 45,000 cardio-metabolic patients from the U.S. state of Vermont, which implemented a Patient-Centered Medical Home (PCMH) program. Our study includes four cohorts with increasing levels of IT and analytics use: (1) non-PCMH practices, (2) PCMH practices with basic IT systems installed, (3) practices that completed data quality sprints (DQS) to increase use of IT systems, and (4) practices that use analytics through the Vermont Healthcare Information Exchange (VHIE).

Our results provide insights into how TDC effects develop over time. In Year 1 after implementation, the DQS cohort demonstrates a marked increase in the use of preventative procedures such as eye exams and neuropathy screenings, the increase becomes more pronounced in Years 2 and 3, and the increase is even greater for the VHIE cohort. As the use of preventative procedures increases, emergency department utilization decreases, with a more pronounced decrease for the VHIE cohort than the DQS cohort. By Year 2, the DQS and VHIE cohorts experience a decrease in total healthcare costs, with a greater decrease for the VHIE cohort than the DQS cohort. By Year 3, the healthcare outcomes indicator of Hemoglobin A1c (HbA1c) level is statistically significantly lower, with a greater decrease for the VHIE cohort than the DQS cohort. The increased use of

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1The accepting senior editors for this paper were Indranil Bardhan, Hsinchun Chen, and Elena Karahanna.
Digital transformation of global business processes: the role of dual embeddedness

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Abstract
Purpose – While much existing research on multinational corporation (MNC) digital transformation has followed a linear design and implementation logic using cross-sectional data, the multiple and divergent needs of headquarters (HQ) and subsidiaries suggest that MNC digital transformation actually involves a more iterative journey. The purpose of this paper is to apply the theoretical perspective of embeddedness to better define the complexities of MNC digital transformation, and identify how HQ and subsidiaries can navigate the complexities.

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This project was partly financed by Handelsbanken Research Foundation Project Fv09-0140 and Fv15-0172, and partly by the University of Richmond.
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How Does Customer Service Offshoring Impact Customer Satisfaction?

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ABSTRACT

Information technology (IT) plays a vital role in customer relationship management (CRM), because CRM processes include the collection and analysis of customer information, firms use technology tools to interact with customers, and IT created the conditions under which firms can offshore CRM processes. Customers have negative perceptions toward offshoring, which suggests that firms might be reluctant to offshore IT-enabled CRM processes. However, firms have significantly increased offshoring for CRM processes, presenting a conundrum. Why would firms increase offshoring for CRM processes if there could be a risk to customer satisfaction?

This paper helps to resolve the conundrum by studying the impact of CRM sourcing on customer satisfaction with the firm’s products and services, as measured by the American Customer Satisfaction Index. We analyze data for 150 North American firms and business units over a nine-year period. Front office offshore outsourcing and front office onshore outsourcing are both negatively associated with customer satisfaction, which suggests that negative customer perceptions may be due to the firm boundary dimension rather than the geographic location dimension. Front office offshore outsourcing is not statistically significant for services firms, which suggests that customers are more accepting of offshore providers in a service setting. Over time, the coefficient for back office offshore outsourcing has become more positive, which suggests that firms may expect to see a similar improvement for front office offshore outsourcing in the future. Our empirical results provide a basis to understand why firms have increased IT-enabled CRM offshoring despite short-term risks to customer satisfaction.

Introduction

Customer relationship management (CRM) requires a cross-functional integration of information technology (IT) and marketing capabilities and is an important function for global firms. CRM includes activities that enhance or facilitate the sale and use of a firm’s product or service, and is often inseparable from the product or service. CRM reduces the cost of customer acquisition, promotes customer retention and loyalty, and creates opportunities to improve products through customer-focused innovation. CRM includes customer service centers, which handle product inquiries, orders, transactions, and post-purchase service and support by phone, e-mail, chat, and/or websites.

IT plays a vital role because CRM processes include the collection, interpretation, analysis and dissemination of customer information, and because firms use technology tools to interact with customers. Customer service centers respond to inbound calls, e-mails and web-based inquiries, produce outbound calls and e-mails for direct marketing and customer service, track inbound and outbound contacts, and maintain telecommunications infrastructure and corporate databases.

In addition to being an integral component of CRM, IT helped create the conditions under which firms can outsource and offshore a wide range of CRM processes, because IT facilitates the codification, standardization and modularization of customer service activities. Personnel costs represent 65% of operating expenses for customer service centers, and firms can save 25–30% of total costs by outsourcing and offshoring CRM processes. As firms pursue these cost savings, the global market for CRM outsourcing and offshoring is expected to reach $81 billion per year by 2018.

While we understand the antecedents of CRM process sourcing, there are significant gaps in our knowledge of outcomes for CRM process sourcing. For example, while there has been useful research on customer attitudes toward offshoring and outsourcing which may indirectly influence the customer’s perception of the firm, we do not yet have a clear understanding of how CRM process sourcing directly impacts customer satisfaction with the firm’s products and services. The lack of research on CRM process sourcing outcomes is surprising, because customer satisfaction is one of the most important outcomes for firms.

The gap in our understanding of CRM process sourcing outcomes manifests in at least one unresolved conundrum. Research indicates that customers have negative perceptions toward offshoring and outsourcing, which suggests that firms might be reluctant to engage in offshoring and outsourcing for CRM processes. However, contrary to this expectation and as described above, firms have significantly increased their use of offshoring and outsourcing for CRM processes. Why would firms significantly increase offshoring
Business buyers are people too: exploring how geodemographics affects business-to-business selling effectiveness

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Abstract
Purpose – Drawing from the contingency model, this study aims to investigate the moderating effects of business-to-business (B2B) buyer personal characteristics on the relationship between sales activities and sales effectiveness.

Design/methodology/approach – As an application of engaged scholarship, this study leverages a years’ worth of sales activity and results from a Fortune 500 financial services company for 2,710 dyads; personal characteristics (i.e. geodemographics) were appended for the customers/prospects of the dyads. The data was analyzed with hierarchical regression, and subgroups were tested using the Chow test.

Findings – The results support that geodemographic segments – as a proxy for personal characteristics – moderate the strength of the relationship between selling activities and sales effectiveness. Overall, the results demonstrate that selling activities have varying impacts on sales effectiveness within geodemographic segments and buyclass scenarios.

Practical implications – While it has been long held that understanding the personal characteristics of the B2B purchasing decision-maker is critical for sales effectiveness, little guidance has been provided on how to accomplish this to scale. The present study provides a framework and process for practitioner operationalization.

Originality/value – This research contributes to the literature that has explored personal characteristics of buying center members. Additionally, the results suggest that personal characteristics of the purchase decision-maker may transcend business-to-consumer and B2B purchasing contexts.

Keywords Homophily, Geodemographics, Buyclass, Contingency model, Selling effectiveness

Paper type Research paper

As multichannel strategies and digitization continue to change the landscape of business-to-business (B2B) markets, including increasing the complexity of personal selling, the productivity of salespeople has remained an important challenge (Lawrence et al., 2019; Paesbrugghe et al., 2017). CSO Insights (2017) show that in recent years, the percentage of salespersons making quota has decreased from 63 to 53 per cent. On the other hand, reports also show that the majority of top sales performers are spending more time using sales technology such as Customer Relationship Management (CRM), citing sales technology as critical to their success for closing more deals (LinkedIn, 2018). In light of this context, Paesbrugghe et al. (2017) underscore the critical need for both academics and practitioners to uncover factors that could enhance salesperson productivity. Further, in prioritizing top directions for future research that addresses technological changes in selling, scholars stress that the human element of sales continues to be critically important in selling, and that applying new lenses to established research streams can generate novel theoretical and practical applications (Flaherty et al., 2018).

Pervasive in the research streams and models that have created the canon of sales effectiveness is the belief in the importance of buying center members’ individual “personality” (Johnston and Lewin, 1996; Bonoma and Shapiro, 1983; Sheth, 1973; Robinson and Faris, 1967; Webster and Wind, 1972). The contingency model – which emphasizes the importance of tailoring sales approaches to specific sales situations (Weitz, 1981; Weitz et al., 1986) – posits that sales effectiveness can best be understood by investigating the interactions among sales behaviors; resources of the salesperson; the nature of the customer’s buying task; and characteristics of the salesperson and customer (Kohli, 1989; Porter et al., 2003). Although previous research has demonstrated a link between B2B purchaser characteristics such as age and how buyers make decisions (da Silva et al., 2002), testing how purchaser characteristics influence sales effectiveness has remained challenging in a buying center context, perhaps because of limitations of acquiring buying center member-level personal data. As Bonoma and Shapiro (1983) identify, “individuals do not wear nametags asserting their psychological
How augmented reality affects advertising effectiveness: The mediating effects of curiosity and attention toward the ad

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ARTICLE INFO

Keywords:
Augmented reality (AR)
Curiosity
Field experiment
Eye-tracking experiment

ABSTRACT

Many major consumer-driven companies have started to use augmented-reality (AR) technology and AR apps to enrich their customers’ shopping experiences and engagement with their brands, and to ultimately increase sales. However, there is scant research discussing the application of AR in an advertising context. Thus, the major goal of this study is to explore how, why, and when augmented reality influences advertising effectiveness. A field experiment and two laboratory experiments demonstrate that an AR advertisement increases consumers’ attitude toward the ad through an increase in their curiosity toward the ad and attention toward the ad (i.e., measured by a physiological measure using eye-tracking). However, the effects only hold when consumers are unfamiliar with the AR ad technology. Overall, this study provides practical implications to advertisers who are considering integrating augmented reality technology in their advertising efforts.

1. Introduction

More recently in-store advertising through mobile devices has continued to become more prominent and consequently has created new options for how retailers communicate with customers—these options have several benefits such as reminding shoppers of specific brands, increasing in-store consumption, and increasing purchase intention (Bues et al., 2017; Feighery et al., 2001). In light of these recent trends, retailers have begun to utilize emerging technology such as augmented reality (AR) ads to increase shoppers’ exposure to a brand or product and to enrich their shopping experiences during in-store trips. For example, Starbucks launched an augmented reality ad campaign during the holiday season and let customers animate their red coffee cups with their smartphones to increase brand sales (Business Insider, 2012).

AR mobile applications—which contextualize products and modify physical surroundings with superimposed virtual elements—are increasingly used by marketing strategists and are reshaping communication among consumers, brands, and companies (Dacko, 2017; Hilken et al., 2017; Javornik, 2016). Consumer-driven companies leverage AR technology and AR apps to enrich their customers’ shopping experiences and increase engagement with their brands to ultimately increase sales. Applied to advertising, AR provides opportunities for advertisers to create unforgettable experiences by enabling people to see computer-generated digital imagery superimposed on traditional advertisements (e.g., print ads) (Yaouneyong et al., 2016). While AR ads are increasingly embraced by retailers, research on how AR contributes to advertising effectiveness, has remained underdeveloped (Javornik, 2016). Therefore, we aim to answer the following: how, why, and when does AR increase advertising effectiveness?

Drawing from the literature related to advertising effectiveness, AR advertising, and curiosity, we propose that AR advertisements affect advertising effectiveness through the mediating effects of consumers’ curiosity and attention toward the advertisement. To empirically test this proposition, we conducted a field study with a kitchen-and-bath company that showed AR advertisements positively influence consumers’ attitude toward the ad. To better understand the results of the field test, we also conducted eye-tracking experiments that demonstrate AR advertisements indirectly increase consumers’ attitude toward the ad through an increase in curiosity and attention toward the ad. However, these effects only hold when consumers are unfamiliar with AR ad technology; as consumers become more familiar with AR ad technology, its serial effect through curiosity and attention on attitude toward the ad diminishes.

There are several important reasons that warrant research on AR

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https://doi.org/10.1016/j.jretconser.2019.102020
Received 19 May 2019; Received in revised form 18 November 2019; Accepted 14 December 2019
Available online 28 December 2019
0969-6989/© 2019 Published by Elsevier Ltd.
Who’s got my back? Comparing consumers’ reactions to peer-provided and firm-provided customer support

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Abstract
This study demonstrates that when an individual encounters a product-related problem, fellow consumers (i.e., one’s peers) have a unique advantage in providing social support to the affected consumer. Specifically, we find that social support can be a dominant driver of consumer satisfaction when the risk of customer defection is at its highest (i.e., following an unsuccessful attempt to solve the consumer’s problem). Using real-world data from an online support community, a pilot study finds that if the problem that a consumer faces goes unsolved, satisfaction is greater when consumers receive peer-provided versus firm-provided support. Study 1 replicates this finding in a controlled experiment that realistically simulates an actual customer support incident in real-time. Study 2 identifies social support as the mechanism that underlies this effect and investigates whether firm employees can take steps to appear more customer-like and thereby replicate the advantage of peer-provided support. Finally, Study 3 reveals an alternative strategy (i.e., utilizing multiple employees) that firms can use to enhance social support and provides evidence that peer-provided support not only enhances satisfaction but also positively influences consumers’ behavioral intentions.

KEYWORDS
cocreation, customer support, problem-solving, satisfaction, social support

1 | INTRODUCTION

Firms make significant investments to ensure that the products they offer to consumers are intuitive, easy to use, and reliable. Despite firms’ best efforts, at some point in time, most customers will experience difficulty using the products they have purchased. Traditionally, consumers have looked to firms to provide them with assistance when they encounter such problems. Recently, however, consumers themselves have begun to play a more active role in providing customer support directly to their peers. For example, in 2018 when a software glitch prevented iPhone users from ending a FaceTime call, 5,564 individuals requested assistance via the Apple Support Community website. In this case, help came from a fellow customer known as Julieda, who shared a solution to this problem with other affected users. We call this type of support, in which one user assists another by providing relevant, solution-focused knowledge, peer-provided support.

Interest in peer-provided support is clearly growing, as demonstrated by the increasing number of firms that have created large-scale online support forums that encourage knowledgeable consumers to offer assistance to their less-skilled fellow users. For example, according to a recent Forrester report, the percentage of firms using online forums/online communities grew rapidly in the space of just a few years, jumping from 31% in 2012 to 56% in 2015 (Leggett, Powers, Ephraim, & Harrison, 2016). Moreover, emerging evidence suggests that peer-provided support can play an important role in helping firms to achieve the dual goals of reducing their...
Regret and nonredemption of daily deals: Individual differences and contextual influences

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Abstract
The growth of online daily deal price promotions and the resulting consumer nonredemption of daily deal coupons is worthy of understanding from a psychological lens of nonconsumption. Whereas there is an emerging literature on daily deals and established literature on barriers to redemption, there exists a gap in where this scholarship intersects. This study provides a conceptual model explaining why consumers purchase daily deal coupons and do not redeem them. We explain consumers’ reasons for buying a daily deal upfront along with their reasons for not using it from theoretical lenses of reasons theory and social motivations theory. On testing the model empirically with qualitative and deepening insight via quantitative methods, the findings reveal that reasons for purchasing daily deals are rooted in individual consumer-level factors (i.e., price-consciousness, buying impulsiveness, and susceptibility to interpersonal normative influence). Further, reasons for nonredemption are explained by contextual elements of the daily deal (i.e., offer distinctiveness, the total number of daily deals sold, restrictions on using the deal, and low discount size). Our findings suggest that post-purchase regret ultimately explains a key reason deals go unused. Marketing implications are offered in the areas of characteristics of daily deal offers.

KEYWORDS
multimethod, nonconsumption, online consumer behavior, regret

1 INTRODUCTION
The e-tailing environment is changing along with the emergence of digital coupons and a more unique business model focused on selling discount vouchers, or “daily deals.” Defined, daily deals are online price promotion offers for consumers who like to obtain good buys and see the reactions of other shoppers (Kukar-Kinney, Scheinbaum, & Schaefers, 2016). Some examples of daily deal websites are Groupon, Living Social, and Amazon Daily Deals. Daily deals offer a more social e-commerce experience than most online shopping websites along with vastly discounted deals and often restrictions of use. However, consumers frequently do not redeem the purchased daily deals because of the situational and market-related inhibitors. According to a Harvard case study on Groupon, almost one-third (30%) of daily deals or online vouchers go unused. Specifically, the consumer problem occurs when the consumer has spent time and money to purchase the daily deal, but then fails to redeem the daily deal voucher and regrets buying it. Such nonconsumption leads to a value loss for consumers or even businesses if consumers start resisting buying daily deals.

Consumer motivations to purchase daily deals stem from consumer’s individual traits, such as compulsive and impulsive buying tendencies (Kukar-Kinney et al., 2016). In addition, when purchasing a daily deal, the consumer can encounter deals for individual use (e.g., a 1-hr massage) or for a shared social experience (e.g., a restaurant meal for four). Thus, there is a need to examine the psychology related to this marketing practice via both individual differences and social motivation-based consumption aspects of purchasing and not

DOI: 10.1002/mar.21324
Dynamics of country image: evidence from Malaysia

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Abstract

Purpose – Previous research has posited country image to operate at two levels: the country’s macro image, based on general politico-economic descriptors of the country, and the country’s micro image, based on perceptions of products from the country. The purpose of this paper is to further explore this premise in a practical study, using a psychometric assessment of macro and micro country images by ascertaining the nature of differences in macro and micro images of leading exporters, the USA and China, for consumers in Malaysia, a top import destination of US and Chinese goods; the images of Malaysian goods were similarly assessed.

Design/methodology/approach – The study used a systematic sample, with questionnaires distributed to adult respondents using a street intercept. Interviewers asked every other passer-by to fill out a questionnaire, and stood in close proximity to address any questions from respondents. The study hypothesized that there is a significant difference between country macro and micro image, respectively for the USA, China and Malaysia, and that there is significant relationship between country macro image and country micro image in each country, respectively, USA, China and Malaysia.

Findings – The study found support for the reliability of existing country micro and macro image measures, and further refined them for increased validity. The study compared between the countries and found significant differences on both macro and micro dimensions of country image. The US scored highest on technological research, high quality products, standards of living, labor costs, welfare system, industrialization, civilian government, development, literacy, free-market system and democracy, followed by China on technological research, industrialization, development and free-market system, with Malaysia scoring higher on product quality, labor costs, welfare system, civilian government is civilian/non-military, literacy, free-market system and democracy.

Research limitations/implications – A broader study of countries that share geopolitical and cultural similarities might offer additional insights into country macro and micro image.

Practical implications – The study cautions marketers to assess the acceptance of their products in the context of their country’s macro and micro image perceptions in target markets, and steer those perceptions in a manner that would be beneficial to their marketing efforts.

Originality/value – The conceptualization of the macro and micro aspects of country image has been one of the less studied dimensions of country image. This study is the first to address these dimensions from an emerging-market perspective, suggesting that, at the macro level, country perceptions regarding technology, economy, and politics contribute to an overall impression of the country, which would then influence the desirability of its products originating there. For the micro country image, products from countries perceived as innovative, excelling in product design, and producing prestigious products, are likely to be perceived as desirable.

Keywords Country of origin, Country image, Country macro image, Country micro image

Paper type Research paper

Introduction

With the swift increase in global commerce, country of origin (COO) has become an important heuristic measure of quality for consumers. The role of COO information in consumer decision-making has been studied extensively: since Schooler’s (1965) and Nagashima’s (1977)
Business buyers are people too: exploring how geodemographics affects business-to-business selling effectiveness

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Abstract
Purpose – Drawing from the contingency model, this study aims to investigate the moderating effects of business-to-business (B2B) buyer personal characteristics on the relationship between sales activities and sales effectiveness.

Design/methodology/approach – As an application of engaged scholarship, this study leverages a years’ worth of sales activity and results from a Fortune 500 financial services company for 2,710 dyads; personal characteristics (i.e. geodemographics) were appended for the customers/prospects of the dyads. The data was analyzed with hierarchical regression, and subgroups were tested using the Chow test.

Findings – The results support that geodemographic segments – as a proxy for personal characteristics – moderate the strength of the relationship between selling activities and sales effectiveness. Overall, the results demonstrate that selling activities have varying impacts on sales effectiveness within geodemographic segments and buyclass scenarios.

Practical implications – While it has been long held that understanding the personal characteristics of the B2B purchasing decision-maker is critical for sales effectiveness, little guidance has been provided on how to accomplish this to scale. The present study provides a framework and process for practitioner operationalization.

Originality/value – This research contributes to the literature that has explored personal characteristics of buying center members. Additionally, the results suggest that personal characteristics of the purchase decision-maker may transcend business-to-consumer and B2B purchasing contexts.

Keywords Homophily, Geodemographics, Buyclass, Contingency model, Selling effectiveness

Paper type Research paper

As multichannel strategies and digitization continue to change the landscape of business-to-business (B2B) markets, including increasing the complexity of personal selling, the productivity of salespeople has remained an important challenge (Lawrence et al., 2019; Paesbrugghe et al., 2017). CSO Insights (2017) show that in recent years, the percentage of salespersons making quota has decreased from 63 to 53 per cent. On the other hand, reports also show that the majority of top sales performers are spending more time using sales technology such as Customer Relationship Management (CRM), citing sales technology as critical to their success for closing more deals (LinkedIn, 2018). In light of this context, Paesbrugghe et al. (2017) underscore the critical need for both academics and practitioners to uncover factors that could enhance salesperson productivity. Further, in prioritizing top directions for future research that addresses technological changes in selling, scholars stress that the human element of sales continues to be critically important in selling, and that applying new lenses to established research streams can generate novel theoretical and practical applications (Flaherty et al., 2018).

Pervasive in the research streams and models that have created the canon of sales effectiveness is the belief in the importance of buying center members’ individual “personality” (Johnston and Lewin, 1996; Bonoma and Shapiro, 1983; Sheth, 1973; Robinson and Faris, 1967; Webster and Wind, 1972). The contingency model – which emphasizes the importance of tailoring sales approaches to specific sales situations (Weitz, 1981; Weitz et al., 1986) – posits that sales effectiveness can best be understood by investigating the interactions among sales behaviors; resources of the salesperson; the nature of the customer’s buying task; and characteristics of the salesperson and customer (Kohli, 1989; Porter et al., 2003). Although previous research has demonstrated a link between B2B purchaser characteristics such as age and how buyers make decisions (da Silva et al., 2002), testing how purchaser characteristics influence sales effectiveness has remained challenging in a buying center context, perhaps because of limitations of acquiring buying center member-level personal data. As Bonoma and Shapiro (1983) identify, “individuals do not wear nametags asserting their psychological
Making energy metrics relevant to service firms: from energy conservation to energy productivity

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A R T I C L E   I N F O

Article history:
Received 1 October 2019
Received in revised form 6 February 2020
Accepted 7 February 2020
Available online 9 February 2020

Handling Editor: Cecilia Maria Villas Bôas de Almeida

Keywords:
Energy productivity
Energy conservation
Service organizations
Corporate social responsibility
Abductive research

A B S T R A C T

Although energy conservation and reduction in environmental impact are on the international and most national agendas, service firms rarely include energy consumption metrics in their strategic decision-making. One reason for the omission is that for service industries, firm level energy utilization is most commonly measured in kilowatt hours per square meter of office space where changes often related to the space rather than the firm performance. The measure also presents several problems for firms in service industries. First, energy conservation and reduction may be counterproductive for service firms that are growing and require energy to sustain that growth. Second, it may not relate to national and international goals which are often focused on the amount of carbon dioxide produced generating energy than the total amount of energy consumed. Third, it treats energy as a utility rather than a resource in firms’ value creation. Results from a field study focused on service firms in Sweden suggests that focusing on energy productivity overcomes the limitations of existing measures and produces positive results. By conceptualizing energy productivity as output per unit of energy, we create a conservation metric that enables service firms to measure their contributions to energy consumption relative to national economic growth. As a result, energy productivity aligns the interests of service organizations with those of policy makers and conservationists.

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1. Introduction

Energy policy has emerged as a significant social and governmental concern shared by local, national and international organizations (Press and Arnould, 2009). In industrial sectors where firms use significant amounts of energy, well-developed systems and key performance indicators (KPIs) for firms to measure and report their energy efficiency have been developed and adopted (Bajpai et al., 2018; Blomberg et al., 2012; Bunse et al., 2011). However, in most developed countries the service sector is the dominant form of business and the single largest component of the national economy (Furrer and Sollberger, 2007). In contrast to industrial firms, most service firms do not have manufacturing or production processes that require large amounts of energy. Instead these firms utilize factors of production such as office space, retail areas or restaurant areas, employees, and information and communication technologies. Other than the generic goal of “energy conservation” and highly aggregated estimates of energy use, service firms do not have effective energy consumption measures that reflect organizational priorities and national policy objectives.

Service industries are having a growing impact on economies, but they are seldom the focus of environmental impact studies (Wang et al., 2020; Ma et al., 2019; Shlake et al., 2013). While it may be expected that corporations would focus on profits while governmental or non-governmental organizations (NGO) will focus on energy conservation, we find that corporate sustainability managers tend to focus exclusively on energy conservation, conceived and measured narrowly as synonymous with gross energy reduction. That is, we find a conflict even within organizations: i.e., sustainability managers vs. other executives. Unfortunately, existing measures available to service firms such as kilowatt-hours per-square meter (kWh/m²) or kilowatt-hours per-employee (kWh/employee), although easy to obtain, can be detrimental to the bottom line and encourage environmentally damaging practices.

Based on a field study that built on a close researcher-