



DYNAMIC INNOVATION IN OUTSOURCING

THEORIES, CASES AND PRACTICES

EDITED BY LESLIE P. WILLCOCKS, ILAN OSHRI, JULIA KOTLARSKY



TECHNOLOGY, WORK AND GLOBALIZATION



Technology, Work and Globalization

The Technology, Work and Globalization series was developed to provide policy makers, workers, managers, academics and students with a deeper understanding of the complex interlinks and influences between technological developments, including information and communication technologies, work organizations and patterns of globalization. The mission of the series is to disseminate rich knowledge based on deep research about relevant issues surrounding the globalization of work that is spawned by technology.

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Leslie P. Willcocks • Ilan Oshri
Julia Kotlarsky
Editors

Dynamic Innovation in Outsourcing

Theories, Cases and Practices

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Editors

Leslie P. Willcocks
London School of Economics and Political
Science
London, UK

Ilan Oshri
Loughborough University
Loughborough, UK

Julia Kotlarsky
Aston Business School
Aston University
Birmingham, UK

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Series Preface

We launched this series in 2006 to provide policymakers, workers, managers, academics, and students with a deeper understanding of the complex interlinks and influences among technological developments, including in information and communication technologies (ICT), work organizations, and globalization. We have always felt that technology is all too often positioned as the welcome driver of globalization. The popular press neatly packages technology's influence on globalization with snappy sound bites, such as "Any work that can be digitized will be globally sourced." Cover stories report Indians doing US tax returns, Moroccans developing software for the French, Filipinos answering UK customer service calls, and the Chinese doing everything for everybody. Most glossy cover stories assume that all globalization is progressive, seamless, and intractable and leads to unmitigated good. But what we are experiencing in the twenty-first century in terms of the interrelationships between technology, work, and globalization is both profound and highly complex. Moreover, there is the continuous emergence of new technologies and their combinations, as the present volume witnesses with cloud computing and automation technologies to the fore by 2018.

The mission of this series is to disseminate rich knowledge based on deep research about relevant issues surrounding the globalization of work that is spawned by technology. To us, substantial research on globalization considers multiple perspectives and levels of analyses. We seek to

publish research based on in-depth study of developments in technology, work, and globalization and their impacts on and relationships with individuals, organizations, industries, and countries. We welcome perspectives from business, economics, sociology, public policy, cultural studies, law, and other disciplines that contemplate both larger trends and micro-developments from Asian, African, Australian, and Latin American, as well as North American and European viewpoints.

As of this writing, we have 25 books published or under contract. These books are introduced below.

1. *Global Sourcing of Business and IT Services* by Leslie P. Willcocks and Mary C. Lacity is the first book in the series. The book is based on over 1000 interviews with clients, providers, and advisors and 15 years of study. The specific focus is on developments in outsourcing, offshoring, and mixed sourcing practices from client and provider perspectives in a globalizing world. We found many organizations struggling. We also found some organizations adeptly creating global sourcing networks that are agile, effective, and cost-efficient. But they did so only after a tremendous amount of trial and error and close attention to details. All our participant organizations acted in a context of fast-moving technology, rapid development of supply-side offerings, and ever-changing economic conditions.
2. *Knowledge Processes in Globally Distributed Contexts* by Julia Kotlarsky, Ilan Oshri, and Paul van Fenema examines the management of knowledge processes of global knowledge workers. Based on substantial case studies and interviews, the authors—along with their network of co-authors—provide frameworks, practices, and tools that consider how to develop, coordinate, and manage knowledge processes in order to create synergetic value in globally distributed contexts. Chapters address knowledge sharing, social ties, transactive memory, imperative learning, work division, and many other social and organizational practices to ensure successful collaboration in globally distributed teams.
3. *Offshore Outsourcing of IT Work* by Mary C. Lacity and Joseph W. Rottman explores the practices for successfully outsourcing IT work from Western clients to offshore providers. Based on over 200

interviews with 26 Western clients and their offshore providers in India, China, and Canada, the book details client-side roles of chief information officers, program management officers, and project managers and identifies project characteristics that differentiated successful from unsuccessful projects. The authors examine ten engagement models for moving IT work offshore and describe proven practices to ensure that offshore outsourcing is successful for both client and provider organizations.

4. *Exploring Virtuality within and Beyond Organizations* by Niki Panteli and Mike Chiasson argues that there has been a limited conceptualization of virtuality and its implications on the management of organizations. Based on illustrative cases, empirical studies, and theorizing on virtuality, this book goes beyond the simple comparison between the virtual and the traditional to explore the different types, dimensions, and perspectives of virtuality. Almost all organizations are virtual, but they differ theoretically and substantively in their virtuality. By exploring and understanding these differences, researchers and practitioners gain a deeper understanding of the past, present, and future possibilities of virtuality. The collection is designed to be indicative of current thinking and approaches, and provides a rich basis for further research and reflection in this important area of management and information systems research and practice.
5. *ICT and Innovation in the Public Sector* by Francesco Contini and Giovan Francesco Lanzara examines the theoretical and practical issues of implementing innovative ICT solutions in the public sector. The book is based on a major research project sponsored and funded by the Italian government (Ministry of University and Research) and coordinated by Italy's National Research Council and the University of Bologna during the years 2002–2006. The authors, along with a number of co-authors, explore the complex interplay between technology and institutions, drawing on multiple theoretical traditions such as institutional analysis, actor network theory, social systems theory, organization theory, and transaction costs economics. Detailed case studies offer realistic and rich lessons. These case studies include e-justice in Italy and Finland, e-bureaucracy in Austria, and Money Claim On-Line in England and Wales.

6. *Outsourcing Global Services: Knowledge, Innovation, and Social Capital* edited by Ilan Oshri, Julia Kotlarsky, and Leslie P. Willcocks assembles the best work from the active participants in the Information Systems Workshop on Global Sourcing, which began in 2007 in Val d'Isere, France. Because the quality of the contributions was exceptional, we invited the program chairs to edit a book based on the best papers at the conference. The collection provides in-depth insights into the practices that lead to success in outsourcing global services. Written by internationally acclaimed academics, it covers best practices on IT outsourcing, business process outsourcing (BPO), and netsourcing.
7. *Global Challenges for Identity Policies* by Edgar Whitley and Ian Hosein provides a perfect fit for the series, in that the authors examine identity policies for modern societies in terms of the political, technical, and managerial issues needed to prevent identity fraud and theft. The scale of the problem exceeds political boundaries, and the authors cover national identity policies in Europe and the rest of the world. Much of the book provides in-depth discussion and analysis of the United Kingdom's National Identity Scheme. The authors provide recommendations for identity and technical policies.
8. *E-Governance for Development* by Shirin Madon examines the rapid proliferation of e-Governance projects aimed at introducing ICT to improve systems of governance and thereby promote development. In this book, the author unpacks the theoretical concepts of development and governance in order to propose an alternative conceptual framework, which encourages a deeper understanding of macro- and micro-level political, social, and administrative processes within which e-Governance projects are implemented. The book draws on more than 15 years of research in India during which time many changes have occurred in terms of the country's development ideology, governance reform strategy, and ICT deployment.
9. *Bricolage, Care and Information Systems*, edited by Chrisanthi Avgerou, Giovan Francesco Lanzara, and Leslie P. Willcocks, celebrates Claudio Ciborra's *Legacy in Information Systems Research*. Claudio Ciborra was one of the most innovative thinkers in the field of information systems. He was one of the first scholars who introduced institutional

economics in the study of Information Systems (IS); he elaborated new concepts, such as “the platform organization” and “formative contexts”; he contributed to the development of a new perspective altogether through Heideggerian phenomenology. This book contains the most seminal work of Claudio Ciborra and work of other authors who were inspired by his work and built upon it.

10. *China's Emerging Outsourcing Capabilities*, edited by Mary C. Lacity, Leslie P. Willcocks, and Yingqin Zheng, marks the tenth book in the series. The Chinese government has assigned high priority to science and technology as its future growth sector. China has a national plan to expand the information technology outsourcing (ITO) and business process outsourcing (BPO) sectors. Beyond the hopes of its leaders, is China ready to compete in the global ITO and BPO markets? Western companies are increasingly interested in extending their global network of ITO and BPO services beyond India and want to learn more about China's ITO and BPO capabilities. In this book, we accumulate the findings of the best research on China's ITO and BPO sector by the top scholars in the field of information systems.
11. *The Outsourcing Enterprise: From Cost Management to Collaborative Innovation* is edited by Leslie P. Willcocks, Sara Cullen, and Andrew Craig. The central question answered in this book is: how does an organization leverage the ever-growing external services market to gain operational, business, and strategic advantage? The book covers the foundations of mature outsourcing enterprises that have moved outsourcing to the strategic agenda by building the relationship advantage, selecting and leveraging suppliers, keeping control through core retained capabilities, and collaborating to innovate. The book provides proven practices used by mature outsourcing enterprises to govern, design, and measure outsourcing. The final chapter presents practices on how mature outsourcing enterprises prepare for the next generation of outsourcing.
12. *Governing Through Technology* by Jannis Kallinikos is a thoughtful scholarship that examines the relationships among information, technology, and social practices. The author discusses the regulative regime of technology and issues of human agency control and

complexity in a connected world. He provides a valuable counterperspective to show that social practices are, in part, unmistakably products of technologies, that technologies are, through historical processes, embedded in the social fabric, and that, if technological determinism is naive, the notion of the regulative regime of technology remains alive and well into the Internet Age.

13. *Enterprise Mobility: Tiny Technology with Global Impact on Information Work* by Carsten Sørensen explores how mobile technologies are radically changing the way work is done in organizations. The author defines enterprise mobility as the deployment of mobile information technology for organizational purposes. The author contrasts how large technology projects in organizations, such as enterprise resource planning (ERP) implementations, will increasingly be managed differently because of mobile technology. The introduction of mobile technology supporting organizational information work will often be driven by individuals, by small teams, or as part of departmental facilitation of general communication services.
14. *Collaboration in Outsourcing: A Journey to Quality* edited by Sjaak Brinkkemper and Slinger Jansen is based on an integrated program of outsourcing research at Utrecht University in the Netherlands. The book is written for practitioners based on interviews and case studies in many global outsourcing firms including Cisco, IBM, Deloitte, Infosys, Logica, and Partni—to name a few. The 16 chapters are short, tight, and written to communicate best practices quickly. The chapters cover the topics of governance, knowledge management, relationship management, and new trends in software development outsourcing.
15. *Advanced Outsourcing Practice: Rethinking ITO, BPO and Cloud Services* by Mary C. Lacity and Leslie P. Willcocks is based on insights from a research program covering over 2200 sourcing arrangements. The book provides an overview of robust practices gleaned from over 20 years of research in the outsourcing field. It covers advanced areas of study, including what providers say about establishing and managing outsourced services, shared services, the changing role of client project management, best-of-breed versus bundled services, rural and impact sourcing, and shifting to cloud services.

16. *Sustainable Global Outsourcing: Achieving Social and Environmental Responsibility in Global IT and Business Process Outsourcing* by Ron Babin and Brian Nicholson examines, through a series of case studies and surveys, current sustainability trends. The book recommends how providers should prepare for increasing buyer demands in this area, suggesting that buyers and providers can work together to build successful outsourcing relationships through collaborative sustainability projects.
17. *Managing Change in IT Outsourcing: Towards a Dynamic Fit Model* by Albert Plugge examines three provider organizations and explores how they have to deal with major fit issues, including strategy, capabilities, and organizational structures, in meeting changing buyer requirements. The book finds that a lack of fit and adaptive behavior on the part of providers helps explain the lack of sustained service performance as a recurring problem in outsourcing arrangements. The author uses evidence to highlight the links between sourcing capabilities, organization structure, and positive sourcing outcomes. Providers who are able to adapt to changing client circumstances, while establishing a fit on these critical factors, tend to succeed in achieving sustainable superior performance.
18. *Materiality and Space: Organizations, Artefacts and Practices*, edited by François-Xavier de Vaujany and Nathalie Mitev, focuses on how organizations and managing are bound with the material forms and spaces through which humans act and interact at work. Developing theoretical insights along the way, the book concentrates on three separate domains in organizational practices: sociomateriality, sociology of space, and social studies of technology. The contributors examine these domains with respect to collaborative workspaces, media work, urban management, e-learning environments, managerial control, mobile lives, institutional routines, and professional identity.
19. *South Africa's BPO Service Advantage: Becoming Strategic in the Global Marketplace* by Leslie P. Willcocks, Mary C. Lacity, and Andrew Craig examines South Africa's growing business services sector and its maturing capability, moving from voice to non-voice, and complex business process outsourcing (BPO) services. The study uses

survey and case study data to provide an overview of BPO global trends, explore the location attractiveness of ten comparator countries, and assess in detail the performance and prospects for South Africa's BPO industry. The book also provides seven detailed case studies covering voice, non-voice, legal services, shared services, captives and offshore outsourcing practices, giving insight and lessons, and assessing future policy directions.

20. *Materiality and Time: Historical Perspectives on Organizations, Artefacts and Practices* is edited by Francois-Xavier de Vaujany, Nathalie Mitev, Pierre Laniray, and Emmanuelle Vaast. This book is a continuation and extension of *Materiality and Space: Organizations, Artefacts and Practices* that focuses on the materialization of time. The collection includes chapters on materializing time and history in organizations, temporal dynamics of artefacts and materiality in organizations, and stretching out time and materiality in organizations from presentism to *longue durée*.
21. *Materiality, Rules and Regulation: New Trend in Management and Organization Studies* is edited by Francois-Xavier de Vaujany, Nathalie Mitev, Giovan Francesco Lanzara, and Anouk Mukherjee. This is the third book on materiality in the series. This volume explores how material artefacts can enforce regulation and substitute for formal norms, rules, and supervision. The authors investigate materiality, rules, and regulation from several theoretical perspectives, including Marxism, institutionalism, neo-institutionalism, process studies, regulation sociology, and affordance literature.
22. *Socially Responsible Outsourcing: Global Sourcing with Social Impact* is edited by Brian Nicholson, Ron Babin, and Mary Lacity. This collection is the second one in the series and extends and updates ideas published in *Sustainable Global Outsourcing: Achieving Social and Environmental Responsibility in Global IT and Business Process Outsourcing*. The book contains research papers that focus on the topic of socially responsible outsourcing (SRO) and on impact sourcing. It includes research frameworks, rich case studies, and an SRO agenda for the future.

In addition to the books already published and several under contract, we have other manuscripts under review but always need more. We encourage other researchers to submit proposals to the series, as we envision a protracted need for scholars to deeply and richly analyze and conceptualize the complex relationships among technology, work, and globalization. Please contact the series editors in the first instance.

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St Louis, USA
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Leslie P. Willcocks
Mary C. Lacity

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- Chapter 3 is an updated and expanded version of an earlier paper that appeared as Lacity, M., and Willcocks, L.P. (2013). Strange Bedfellows No More: Researching Business Process Outsourcing and Dynamic Innovation. At the Fourth International Conference of Information Services, Mannheim, Germany, June 10–11. Also a further version appeared as Lacity, M., and Willcocks, L.P. (2014). *Business Process Outsourcing and Dynamic Innovation. Strategic Outsourcing International Journal*, 7 (1): 66–92. Reprinted materials with kind permission of *Journal of Global Operations and Strategic Sourcing*.
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Outsourcing Professionals (IAOP) World Summit 2016, Orlando, and this updated version is its first publication.

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Contents

Part I	Introduction	1
1	Why Innovation and Why Now? <i>Leslie P. Willcocks, Ilan Oshri, and Julia Kotlarsky</i>	3
Part II	Managing Outsourcing: Towards Dynamic Innovation	27
2	Outsourcing Reframed: Delivering on Collaborative Innovation <i>Leslie P. Willcocks and Edgar A. Whitley</i>	29
3	Strange Bedfellows No More: Researching Business Process Outsourcing and Dynamic Innovation <i>Mary Lacity and Leslie P. Willcocks</i>	57

4	What Client Firms Want and Are Willing to Do to Achieve Innovation from Their Suppliers: Insights from the Nordic, Italian, and British Outsourcing Sectors	95
	<i>Ilan Oshri, Julia Kotlarsky, Angelika Zimmermann, and Giovanni Vaia</i>	
5	Relational and Contractual Governance for Innovation	131
	<i>Ilan Oshri, Julia Kotlarsky, and Alexandra Gerbasi</i>	
6	Innovation: Where Do Consultants Fit In?	167
	<i>Ilan Oshri, Daria Arkhipova, and Giovanni Vaia</i>	
Part III	The New Outsourcing—Cloud and Service Automation	195
7	Cloud Computing as Innovation: Cases and Practices	197
	<i>Leslie P. Willcocks and Mary Lacity</i>	
8	Innovating Customer Relationship Management Cloud Services at Standard Chartered Bank	239
	<i>Graham Costello and Leslie P. Willcocks</i>	
9	Innovating in Service: The Role and Management of Automation	269
	<i>Mary Lacity and Leslie P. Willcocks</i>	

List of Contributors

Daria Arkhipova is a postdoctoral research fellow at the Department of Management at Ca' Foscari University of Venice. Daria's research interests include informational technology, strategy, competitive interaction, and managerial decision-making. She has been an active collaborator of the Digital Enterprise Lab (DEL) and Center of Experimental Research in Management and Economics.

Graham Costello is Global Client Advisor for Oracle Corporation, having previously been Director of Financial Services Sector—Asia Pacific (APAC), for first Hewlett Packard, then subsequently Oracle. He has also been managing director of Bearing Point and the client director for Telecom New Zealand Australia, working for Commonwealth Bank Australia. Graham completed his doctorate at Oxford University, on knowledge management in strategic alliances, and has published a number of academic papers on these subjects. In his present work, he has been responsible for building consulting organisations from scratch, and more recently, transitioning large corporations to the cloud. Combined with extensive experience and academic research into outsourcing, he is searching for opportunities to contribute to Oracle's "pivot to the cloud."

Alexandra Gerbasi is a professor at Exeter Business School, University of Exeter, United Kingdom. Her research focuses on the relationships between organizational traits and performance. Her work was published in leading international journals such as *Journal of Management*, *Journal of Strategic Information Systems*, and others.

Julia Kotlarsky is Professor of Technology and Global Sourcing at Aston Business School, United Kingdom. She is also a visiting professor at Rotterdam School of Management, Erasmus University, Netherlands. Julia's research interests revolve around sourcing and innovation of knowledge-intensive business services and coordination in dynamic organizational settings. Her work was published in numerous journals including *MIS Quarterly*, *European Journal of Information Systems*, *Journal of Strategic Information Systems*, *The Wall Street Journal*, and others. Julia is a regular presenter in international conferences and conventions. She has published 14 books; among them, *The Handbook of Global Outsourcing and Offshoring* is widely used by practitioners and academics. She is co-founder and organizer of the annual Global Sourcing Workshop (www.globalsourcing.org.uk). Julia serves as a senior editor for *Journal of Information Technology*, and a former associate editor for *MIS Quarterly*.

Mary Lacity is Curators' Distinguished Professor at the University of Missouri-St. Louis and a visiting scholar at Massachusetts Institute of Technology Center for Information Systems Research (MIT CISR). She has held visiting positions at the LSE, Washington University, and Oxford University. She is a Certified Outsourcing Professional®, Industry Advisor for Symphony, and Co-editor of the Palgrave Series: *Work, Technology, and Globalization*. Her research focuses on the delivery of business and IT services through global sourcing and automation. She has conducted case studies and surveys of hundreds of organizations on their outsourcing and management practices. She has given keynote speeches and executive seminars worldwide and has served as an expert witness for the US Congress. She was inducted into the IAOP's Outsourcing Hall of Fame in 2014, one of only three academics to ever be inducted. She was the recipient of the 2008 Gateway to Innovation Award sponsored by the IT Coalition, Society for Information Management, and St. Louis Regional Chamber of Commerce (RCGA). She has published 26 books, most recently *Robotic Process Automation and Risk Mitigation: The Definitive Guide* (2017) and *Service Automation: Robots and the Future of Work* (2016; co-author Leslie P. Willcocks). Her publications have appeared in the *Harvard Business Review*, *Sloan Management Review*, *MIS Quarterly*, *MIS Quarterly Executive*, *IEEE Computer*, *Communications of the ACM*, and many other academic and practitioner outlets.

Ilan Oshri is Professor of Globalisation and Technology at Loughborough School of Business and Economics, Loughborough University, United Kingdom. Ilan is the author of "Offshoring Strategies: Evolving Captive Centers Models" (MIT Press, 2011, winner of ERIM Best Book Award), book series editor of

Outsourcing and Offshoring (2013), and the co-author of “The Handbook of Global Outsourcing and Offshoring” (3rd Edition, Palgrave, 2015). He co-authored/co-edited 15 books on outsourcing and offshoring. His work has either appeared or been accepted for publication in numerous journals and magazines including *The Wall Street Journal*, *MIS Quarterly* (2015 best European paper), *Business History*, *MISQ Executive*, *Communications of the ACM*, *IEEE Transactions on Engineering Management*, *European Journal of Information Systems*, *Journal of Information Technology*, *Management Learning*, *Journal of Strategic Information Systems* (2007 Best Paper Award) and others. His work on outsourcing was featured on *BBC Radio 4*, *BusinessWeek*, *Financial Times*, and many other journals and magazines. He is acting as Associate Editor of *MIS Quarterly* and Senior Editor of *Journal of Information Technology*. Ilan is a regular speaker in international conferences, a contributor to leading professional outlets, and a keynote speaker in corporate events and seminars. He is the co-founder of the Global Sourcing Workshop (www.globalsourcing.org.uk).

Giovanni Vaia is an assistant professor with tenure at Ca’ Foscari University Venice at the Department of Management where he teaches Global Sourcing and Digital Management. Giovanni Vaia’s interests include organization design and general management with a specific focus on digital transformation, information systems, network governance and outsourcing, and performance management. He is the founder and the Scientific Director of the DEL at Ca’ Foscari.

Edgar Whitley is Associate Professor of Information Systems in the Information Systems and Innovation Group at the LSE. He has a BSc (Econ) and a PhD in Information Systems, both from the LSE. Edgar is the co-editor for *Information Technology & People*. He is also involved in the EnCoRe project (www.encore-project.info) that is addressing the role of consent (and the revocation of consent) as a mechanism for providing control over the use of personal data. Together with Gus Hosein, he has recently published *Global Challenges for Identity Policies* (Palgrave, 2010).

Leslie P. Willcocks is Professor of Technology Work and Globalization at the Department of Management at LSE. He heads the LSE’s Outsourcing Unit research centre and is Editor-in-Chief of the *Journal of Information Technology*. Leslie has a global reputation for his work in robotic process automation, AI, cognitive automation and the future of work, outsourcing, global strategy, organizational change, and managing digital business. He is co-author of 57 books, and has published over 240 refereed papers in journals such as *Harvard Business Review*, *Sloan Management Review*, *California Management Review*, and *MIS*

Quarterly, Journal of Management Studies. He is a regular keynote speaker at international practitioner and academic conferences, and has been retained as adviser and expert witness by major corporations and government institutions in the UK, USA, Europe, and Asia Pacific.

Angelika Zimmermann is Senior Lecturer in International Business and Strategy at the School of Business and Economics in the University of Loughborough. Her research focuses on international collaboration in offshoring arrangements, global teams, and expatriate assignments, with a special interest in the Indian, Chinese, German, and UK contexts. She has published in leading academic journals such as the *Journal of Vocational Behavior*, *Information Systems Journal*, *the International Journal of Management Reviews*, *The International Journal of Human Resource Management*, and *International Studies of Management & Organization*.

List of Figures

Fig. 1.1	The innovation ladder in outsourcing. Source: Oshri and Kotlarsky (2011)	12
Fig. 1.2	Impact of incremental and radical innovation on the operational and strategic levels of the client firm. Source: Oshri and Kotlarsky (2011)	13
Fig. 1.3	Comparing service outsourcing and innovation mentalities. Source: Oshri (2014)	20
Fig. 2.1	The global sourcing learning curve 1989–2020. Figure 2.1 has been developed from Lacity, M.C., and Rottman, J.W. (2008). <i>Offshore Outsourcing of IT Work</i> . Palgrave Macmillan, London	31
Fig. 2.2	Four practices underpin collaborative innovation process	36
Fig. 3.1	Categories of innovations (n = 85)	65
Fig. 3.2	The dynamic innovation process (Source: authors)	69
Fig. 3.3	The primary source of innovation ideas (n = 189 respondents)	81
Fig. 4.1	Is innovation in outsourcing important? (Results in this figure and others sometimes do not add up to 100% because some respondents have chosen ‘Do Not Know’ which was not included in this presentation)	100
Fig. 4.2	Innovation, budget, and time	101
Fig. 4.3	Innovation and contract types	103
Fig. 4.4	The distribution of pricing models	104
Fig. 4.5	Knowledge and capabilities	105

xxvi **List of Figures**

Fig. 4.6	Alignment of goals and objectives	108
Fig. 4.7	Trust and open communication	109
Fig. 4.8	Closeness of the relationship	110
Fig. 4.9	Proactivity and effort by supplier and client	111
Fig. 4.10	Support by executives versus bottom-up approach	114
Fig. 4.11	Innovation performance	115
Fig. 4.12	Innovation and running costs	116
Fig. 4.13	Innovation and service/product offering	117
Fig. 4.14	Innovation and process transformation	118
Fig. 4.15	Innovative solutions delivered by third-party suppliers	118
Fig. 4.16	The quality of innovations delivered through outsourcing	119
Fig. 4.17	Organisation's strategic intent for outsourcing and innovation	121
Fig. 4.18	Advisory firms and innovation	121
Fig. 4.19	Functional background of respondents	122
Fig. 4.20	Pricing model used to achieve innovation	124
Fig. 4.21	Does a contract with gain-sharing clauses provide incentives for third-party suppliers to deliver innovation?	124
Fig. 4.22	Does the contractual agreement between the client and third-party supplier need to focus on service quality rather than costs?	125
Fig. 4.23	Agree or disagree—'The supplier understood the strategic roadmap of this particular service.'	126
Fig. 4.24	Agree or disagree—'We understood the supplier's strategic goal for this particular service.'	127
Fig. 4.25	Organisation's ability to assess the suppliers' capability over the last five years	127
Fig. 4.26	Agree or disagree—'We treated the key third party supplier employees like our own employees.'	128
Fig. 4.27	The mechanisms leading to innovation	129
Fig. 5.1	Theoretical model	141
Fig. 6.1	<i>Marginal effects of supplier-client knowledge familiarity on innovation</i> performance: advisory versus non-advisory case	186
Fig. 7.1	CBA's multi-provider model of cloud computing	217
Fig. 7.2	Cloud journey	231
Fig. 8.1	CEMS sales and service capabilities	245
Fig. 9.1	RPA software as "non-invasive"	271
Fig. 9.2	Structured data on corporate earnings from Zach Investment	281
Fig. 9.3	A sample corporate earnings report. Source: The AP, reproduced with permission	281

Fig. 9.4	Meter reading process before service automation	283
Fig. 9.5	Meter reading process after service automation	284
Fig. 9.6	London premium advice notices (LPAN): before RPA (left) and after RPA (right)	286
Fig. 9.7	“Poppy” (reproduced with permission, Xchanging)	287
Fig. 9.8	Robotic process automation and cognitive intelligence tools	294
Fig. 9.9	Mature service automation operating model	308

List of Tables

Table 3.1	Source of innovation ideas and funding	84
Table 4.1	Areas currently outsourced to third-party suppliers	122
Table 5.1	Description of the sample	143
Table 5.2	Factor analysis of components in analysis	145
Table 5.3	Means, standard deviations and correlations	147
Table 5.4	Hierarchical OLS linear regression predicting strategic innovation	148
Table 6.1	Description of the sample (n = 147)	180
Table 6.2	Descriptive statistics and correlation matrix	183
Table 6.3	OLS regression model on innovation performance	184
Table 7.1	The three SMEs and cloud computing	200
Table 7.2	Cost drivers	202
Table 7.3	Stakeholder concerns	204
Table 7.4	Contractual governance	207
Table 7.5	Relationship governance	209
Table 7.6	Satisfaction with provider performance	211
Table 7.7	Business value delivered	212
Table 7.8	Cloud computing as the infrastructure for business services within an “ambidextrous” and agile organizational form	230
Table 7.9	Summary of findings in SMEs	234
Table 8.1	Innovation cycle for Standard Chartered Bank CEMS	242
Table 8.2	Key customer metrics	247
Table 8.3	Symbiotic innovations Standard Chartered and Oracle	260

Table 8.4	Comparing systems integration outsourcing and cloud services	262
Table 8.5	Appendix: Interviewees	266
Table 9.1	Client organizations represented	275
Table 9.2	Provider organizations represented	277
Table 9.3	Advisor organizations represented	279
Table 9.4	Action principles	289
Table 9.5	Automation and sourcing decisions (1 = strongly disagree; 7 = strongly agree)	315

Part I

Introduction



1

Why Innovation and Why Now?

Leslie P. Willcocks, Ilan Oshri, and Julia Kotlarsky

For nearly 30 years, organisations have sought innovation from outsourcing their back office information technology (IT), and latterly also their business processes. There are many reasons that companies of various sizes see the benefit of outsourcing particular aspects of innovation, here defined generally for a business context as deploying new and creative ways of achieving productivity or growth (Coulter and Fersht 2010). Quinn (2000) lists reasons that include limited resources and capabilities within the organisation, a shortage of specialist talent, management of

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L. P. Willcocks (✉)
London School of Economics and Political Science, London, UK

I. Oshri
Loughborough University, Loughborough, UK

J. Kotlarsky
Aston Business School, Aston University, Birmingham, UK
e-mail: j.kotlarsky@aston.ac.uk

multiple risks, attracting talent in the company's non-specialised areas and getting to market faster. So how can companies achieve innovation through all the various ways of sourcing available? Often they have an ad hoc approach to innovation, or what Linder et al. (2003) call a transactional approach. This approach, however, often fails to leverage organisational learning and develop innovation capabilities within the client firm as they work with suppliers. Clearly, an ad hoc approach cannot create a culture in which external contributions are accepted or welcomed. Moreover, it is difficult to develop innovative processes and measure innovation outcomes when companies innovate on an ad hoc basis.

In this book, we look at how organisations go about achieving innovation through outsourcing in a more systematic manner. This sets the context for our major, more restricted focus on whether, and, if so, how, IT and business process innovations can be achieved through using external information technology outsourcing (ITO) and business process outsourcing (BPO) service providers. We want to stress that we are not talking about sourcing innovation through offshore R&D centres but about outsourcing engagement where the client is seeking to achieve innovation. We start by detailing the debate around whether innovation can be outsourced and, if so, under what conditions. We then look at the case for internal control and the research on how outsourcing innovation can become an organisational practice in outsourcing arrangements.

Innovation Through Outsourcing: Why Now

Historically, clients frequently assumed that innovation would result from outsourcing—after all you are supposedly hiring superior expertise with wide experience of doing things well/better. But it is only relatively recently, from 2000 on, that client firms have paid greater attention to achieving innovation through outsourcing from their suppliers. Weeks and Feeny (2008) have offered a helpful categorisation of such innovation, distinguishing between IT, business process and strategic innovations (see also Chap. 2). In the last ten years the outsourcing sector has experienced a shift in client expectations, predominately around growing demand from client firms to see business process and strategic innovation

delivered by suppliers and in some cases an innovation push approach by suppliers pitching new technologies and business solutions to client firms. By 2018, clients were regularly demanding innovation that delivers strategic and significant operational benefits, and also looking to cloud computing (see Chaps. 7 and 8) and automation (see Chap. 9) as innovations that contributed to these goals. Several factors have contributed to this recent trend. First and foremost, long-lasting outsourcing engagements have, over time, created more trustful relationships between the parties that allowed them to shift from focusing on transactional service-based outsourcing projects to venture into riskier joint innovative projects. Second, as cost benefits from transactional labour arbitrage have eroded over the years yielding diminishing value to the client firm, new sources of advantage from outsourcing were pursued, such as joint innovation projects. Third, some suppliers have seen delivering innovation as a way of differentiating themselves from the crowd while deepening their relationship with the client and on some occasions increasing the client's dependency on their services and technologies. Fourth, not least, and ironically, the prolonged outsourcing of services has negatively affected some client firm's ability to innovate, forcing them to seek external sources of innovation.

The last five years have only magnified the effect of these factors. With growing blending and dependency of services on technologies in the form of cloud computing, robotic process automation and cognitive computing, client firms are dependent on suppliers as sources of innovation more than ever. Therefore, from around 2013, as outsourcing contracts have come up for renewal, clients have insisted on suppliers helping them to progress their cloud computing and digital imperatives and, since 2015, their automation imperatives. This shift from more traditional services to a digital/automated 'As-A-Service' mode requires itself a great deal of innovation on the part of clients and suppliers alike, but especially in the latter's business and operating models. The dilemma for suppliers in particular has become increasingly stark. Looking across a range of sources, our estimates are that, in 2016, the global ITO market was probably \$US 657 billion with a 2.6% compound annual growth rate to 2020. But the traditional IT services market was predicted to decline by -2.4% per year over this period and the 'As-A-Service' market

to rise by 21.7% per year. For BPOs, these were globally \$US 336 billion in 2016, with a compound annual growth rate of 4% to 2020. However, traditional BPO services have been predicted to rise at 2.5% per annum across this period, while the 'As-A-Service' market by 8.6%.

Given these developments, it is imperative at this point in time to understand this timely topic in the broader context of management and the specific relevance for outsourcing.

The Innovation Through Outsourcing Debate

Over the past 20 years of ITO, BPO and offshoring, the record on innovation through suppliers has been one of many disappointments and false starts. In practice, clients and suppliers have found it difficult to draw up contracts that lead to innovation. Suppliers have created and tried to use innovation centres, and clients have created innovation funds or have set up multisourcing arrangements in which they hoped that greater collaboration and competition might lead to greater innovation. But time and again, such well-intended efforts have not yielded significant innovation. All too often, the promise of innovation has been too small a part of the overall contract and, moreover, has tended to be negotiated out of outsourcing contracts as both parties seek to reduce their risk and investment exposure (Willcocks and Lacity 2009). More recently, Coulter and Fersht (2010) have suggested that an additional limitation for ITO and BPO alike lies with outsourcing suppliers that historically have been organised around the industry verticals of their clients. They argue that suppliers need to develop a new organisational model from their experiences of servicing multiple industries that bypasses an industry vertical's inherent resistance to collaborate and creates an environment of willing collaborators (see Chap. 2 for details of such a model, also Chap. 3 for details of the management practices required).

Certainly there is plenty of evidence that if an innovation agenda is to be productive, a lot needs to change from the way leaders perceive and are willing to invest in innovation through outsourcing. For example, a survey of client organisations taken in 2015 (Oshri et al. 2015) showed that

client firms have considered a wide range of activities and mechanisms that will foster innovation.

An earlier study by Forrester Research found that 38% of IT outsourcing customers cited a lack of innovation or continuous improvement as their biggest challenge with suppliers. Indeed, IT analysts were registering considerable scepticism among clients about suppliers' innovation pitches (Overby 2007; Savvas 2007). For example, Fersht (2010) surveyed 588 senior decision-makers in client, supplier and advisory organisations. While 43% of clients viewed innovation as a critical element in BPO, more than half of all BPO buyers were disappointed with their current state of innovation. Customer care, recruitment, payroll and management reporting were noticeably failing to meet clients' expectations. Buyers saw their major impediments as ineffective change management and unempowered internal governance teams. More recently, concerns have been raised about suppliers failing to meet clients' expectations when implementing automation innovating solutions (see Chap. 9).

There has been a long-standing debate around whether innovation through outsourcing can in fact be achieved. At the heart of this debate is the dichotomy between the service and innovation mentalities. The service outsourcing mentality is based on the ability to clearly define the scope and nature of the service and capture these dimensions in a service-level agreement (SLA). On the other hand, innovation requires an open-ended mentality in which it is not always possible to define the outcome of the innovation effort, let alone develop a clear commercial model that will ensure compensation for the supplier for their innovation effort. Overby (2010) rightly argues that in fact the problem lies more with clients' critical mistakes in attempting to procure innovation from external suppliers. She cites three such errors: Clients do not know what they want (a failure to define innovation in the context of corporate objectives), clients choose the wrong suppliers (they do not adequately examine the supplier's culture, history, suite of services and innovation track record) and clients do not set up effective innovation metrics (therefore avoiding traditional IT metrics; in addition, most SLA regimes and pricing models deter innovation).

The Role of Strategy and Internal Capability to Innovate when Pursuing Innovation Through Outsourcing

All this would suggest that, before looking to the market for innovations, companies should first consider whether innovating through outsourcing is a viable strategy. As Chesbrough and Teece (1996) and Chesbrough et al. (2006) point out, the virtues have sometimes been oversold. Companies that place a great deal of emphasis on external sourcing while neglecting to nurture and guard their own capabilities may be taking many risks. One approach, therefore, is to build internal capability to innovate. This is particularly important in firms that are highly dependent on innovation for market leadership. Westerman and Curley (2008) provide a useful example here of building IT-enabled innovation capabilities at Intel. Their study charts how, from 2003, Intel adopted a staged approach and built a global network of IT innovation centres, together with a virtual innovation centre that acted as a focal point for making new innovation tools and activities available throughout the company. They suggest seven lessons:

1. Take the lead in innovation. Do not wait to be asked.
2. Build momentum early, and use it to expand scope.
3. Measure and publicise progress.
4. Culture is not a prerequisite; it can be changed to be more innovative.
5. Build an enabling environment and infrastructure for innovation.
6. Do not innovate alone: obtain external people and funding.
7. Gain and maintain executive support.

There are many echoes of these practices throughout the research we carried out for the chapters of this book. Chesbrough and Teece (1996) help by also distinguishing two types of innovation: autonomous and systemic. *Autonomous* innovation can be pursued independently from other innovations, whereas the benefit of *systemic* innovation can be realised only in conjunction with related, complementary innovations.

The two types of innovations call for different organisational strategies. Autonomous innovation can be very well managed in decentralised virtual networks, while systemic innovation requires a high level of information sharing and the capabilities to coordinate adjustments throughout an entire product system. Such capabilities of coordination and integration are usually available within a well-managed organisation rather than a loosely connected network.

IBM is a good example. In the early 1980s, IBM had an open architecture based on standards and components that were widely available. This architecture enabled IBM to take advantage of a third-party development of software applications and hardware accessory products. It also relied on the market to distribute the product. As a result, IBM greatly reduced its costs to bring a PC to market and outperformed Apple, the market pioneer at that time. However, IBM has since lost its advantage as other competitors have tapped into the same sources in the market, over which IBM has little control. Moreover, most of the profits from the PC architecture have migrated upstream to the supplier of the microprocessor (Intel) and the operating system (Microsoft). IBM's experience shows that key development activities that depend on one another must be conducted in-house to capture the rewards from long-term R&D investments.

A company that cultivates and strengthens its unique competencies and capabilities is also able to maintain the position of a dominant player in a network, and thus to drive and coordinate systemic innovation. As Chesbrough and Teece (1996) observe, the most successful companies withhold dominant control in a network. For example, Toyota was much larger than its suppliers and was the largest customer of most of them. As a result, it could compel those suppliers to make radical changes in their business practices.

Tapping into External Innovation Sources

A plethora of studies and commentators have supported the notion of increasingly working and innovating with external parties in order to compete effectively in the global economy. Hagel and Seely Brown (2008)

point to the importance of new forms of connection and coordination and the value of offshoring. Prahalad and Ramaswamy (2004) see co-creating value with customers as among the best future competitive plays. Davenport et al. (2006) argue that globalisation, aided by rapid technological innovation, has changed the basis of competition. It is no longer a company's ownership of capabilities that matters, but rather its ability to control and make the most of critical capabilities, whether or not they reside on the firm's balance sheet. A new strategic mindset is required that supports co-shaping value innovation and open innovation processes.

To put flesh on this rationale, Stanko et al. (2009) researched the sourcing habits and innovative performance (patents produced) of 359 companies. The most successful companies used outsourcing in four circumstances:

- When a company needed to add lots of new knowledge to innovate—for example, finding out how to work with an unfamiliar chemical compound to develop a new line of pharmaceuticals.
- In the early stages of a project, when there are many technical hurdles to overcome and the outcome is far from certain.
- When intellectual property is not well protected in the industry. In this situation, since new ideas spread quickly, it may not be possible to differentiate products with innovations. Therefore, businesses turn to outsourcing to limit spending.
- When a company has a great deal of experience with outsourcing. The costs and benefits of outsourcing are more certain for experienced firms, and they can better manage the situation to produce effective results.

Where companies make the decision to leverage externally sourced innovation, they should establish deliberate, consistently available channels to match their strategic requirements. Once established, these channels can be used as needs arise. Linder et al. (2003) identify five types of external innovation channels:

1. *Building innovation on the market.* The sources of innovation that companies can turn to are universities and private research labs.

Another way to tap into innovation in the market is through strategic procurement, that is, by seeking differentiated products or innovative processes from suppliers.

2. *Investing in innovators.* Companies can take equity positions in organisations focused on small or emerging markets. This often helps to resolve the innovator's dilemma that arises when established firms resist innovation that might undermine their existing offerings. By investing in an equity partnership, a company can participate in and nurture an emerging market.
3. *Co-sourcing.* Companies sometimes band together to share the costs of innovation, for example, to address regulatory requirements that affect them all. Some high-tech firms sponsor professors in universities who work in promising areas and share any intellectual property that is produced. Joint venture is another way to co-source innovation.
4. *Community sourcing.* This refers to innovation produced by loosely connected communities of sophisticated users. One successful example is the open source software industry. Another is eBay, which uses community-based innovation extensively to identify new sales categories and expand its capabilities.
5. *Resourcing.* Companies can support their research staff by contracting with external suppliers for on-demand talent and innovative new tools. For example, DuPont Crop Protection hires high-quality researchers in India, Russia and China who are paid much less than their counterparts in the USA. Aventis S.A. identifies cutting-edge technologies in the market and brings them in-house to support product development.

How to Achieve Innovation Through Outsourcing: The Innovation Ladder

Oshri and Kotlarsky (2011) have developed a framework that we call the innovation ladder (Fig. 1.1) to help client companies incorporate innovation in their outsourcing strategy.

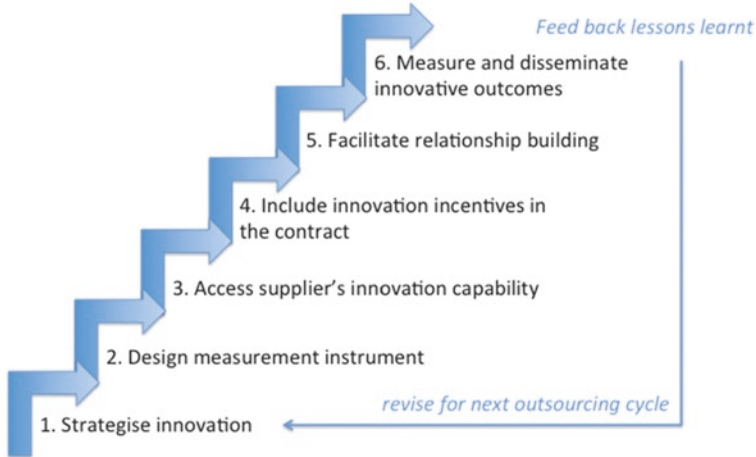


Fig. 1.1 The innovation ladder in outsourcing. Source: Oshri and Kotlarsky (2011)

The emphasis in our approach, as opposed to some other studies we have seen, is that we believe that the innovation strategy should be integrated into the outsourcing strategy of the client firm. The innovation ladder is a full-cycle approach from the beginning of the outsourcing relationship until the delivery of innovation. Yet, client firms can pick and choose some steps depending on the breath of innovation sought and on the nature of the relationship they establish with their suppliers.

Step 1: Strategise Innovation

A journey into innovation through outsourcing should start at the early stages of strategising the outsourcing project. These early stages of the outsourcing life cycle often involve the identification of objectives and the potential areas for improvement derived from the outsourcing engagement. At this point in time, it is imperative that executives consider the impact expected on the firm, from operational or strategic perspectives, and the two levels of innovations: incremental and radical (see Fig. 1.2).

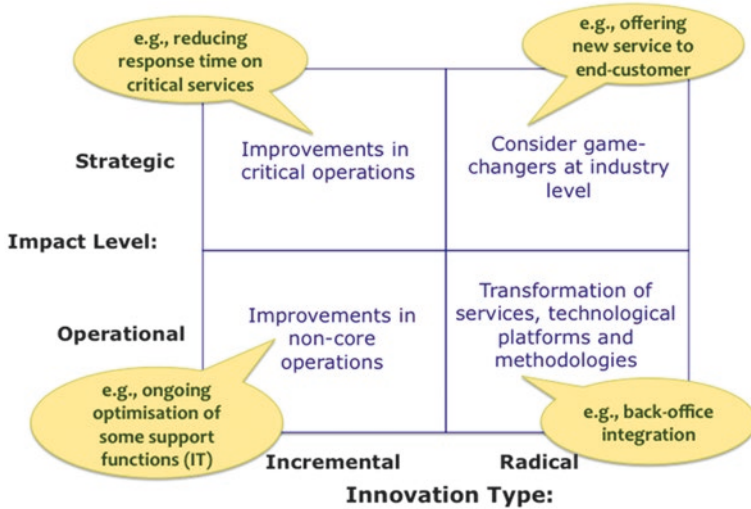


Fig. 1.2 Impact of incremental and radical innovation on the operational and strategic levels of the client firm. Source: Oshri and Kotlarsky (2011)

In principle, executives should consider the four areas of improvements when strategising innovation in outsourcing. To start with, executives should discuss the *incremental improvements expected at the operational level* in business processes that are considered to be noncore to the firm's competitive position. Such business processes can be, for example, finance and accounting, human resource management and procurement, which are becoming prominent candidates for outsourcing, however, with little attention to the improvements sought to be achieved from the suppliers.

Client firms should also seek *incremental improvements in critical operations* outsourced to a third-party service provider. One example of such business process is business analytics. Our study reports that 26% of the respondents outsourced business intelligence to a third-party service provider. In this regard, executives should consider incremental innovations in a critical business function that benchmark with best practices in the industry. For example, executives can ask the following question: What gaps exist between our level of critical operations and the industry's best performer's level of these critical operations?

Combining the areas of improvements in noncore and critical business operations will allow executives to form their 'wish list' of incremental improvements, which can be captured in the contract.

Executives should also consider radical innovation that can be achieved in their outsourcing engagements. This would require executives to consider the transformation of existing services and technological platforms but also scenarios in which the solution or the process through which the desired outcome will be achieved is not yet defined. In terms of the *impact at the operational level through radical innovation*, executives should discuss what services and technological platforms are candidates for major transformations. Such decisions can be made by considering specific service performance, cost-value ratios and benchmarking against cross-industry service performance.

The fourth, and most challenging, strategic stage should be about problems or strategic moves that are still unknown and, therefore, the solutions for them are still to emerge. Here we are considering the *impact at the strategic level of radical innovation*. Executives should discuss scenarios of major shifts in the industry landscape and competitor strategies as a threat and an opportunity to shape their competitive environment. In this regard, executives should ask the following questions: What business models may emerge in the industry? What business models may become obsolete? What new services and service delivery methods may emerge and how prepared is the organisation to either shape the environment or benefit from such changes? Decision-makers at this stage may also consider entry to new markets and/or new industries as a strategic move of the firm, or as a result of mergers and acquisitions that create a need for executives to reconsider how to maximise benefits from new markets/industries. The purpose of such discussions is twofold: first, to shift executives' attention from focusing on the operational/transformational level in outsourcing to consider strategic issues that are still to emerge, as a response to the dynamic and highly competitive environment, and, second, to discuss and formulate a framework within which such challenges will be shared with trustworthy suppliers.

By bringing together these four aspects of innovation in outsourcing during the early stages of the planning, the client firm will be able to devise an approach to realising the innovation potential from each setting.

Step 2: Design Measurement Instrument

As a second step, client firms need to develop the measurement instruments for the incremental innovation expected to be delivered by the suppliers and design a framework for which radical innovation will be pursued with selected suppliers. The measurements for incremental innovation should be developed against the benchmark in the industry. With this, the objectives captured in Step 1 will be translated into specific expectations regarding incremental improvements expected from their prospective suppliers. While designing measurements for incremental innovation (e.g., a percentage of cost reduction, a percentage of improvement in time-to-market or a percentage reduction in process duration), it is important to relate these targets to Key Performance Indicators (KPIs) of the client's firm and to Key Success Factors (KSFs) at the industry level. In this stage executives should ask the following questions: Which services/technological platforms/methodologies are lagging behind the standard performance in the industry? Which business function candidates for outsourcing are key for operational excellence? The answers to these questions will assist executives in identifying the services and technologies that are candidates for incremental innovation and also to realise the expected improvement measurement as benchmarked against industry performance. This analysis will address the design requirements of incremental innovation in the early stages of the outsourcing engagement. The contract should also have a clear reference to how the supplier will be rewarded if it improves the measurements further (e.g., bonus as a percentage of additional cost savings that result from process improvement).

The design of a collaborative framework for radical innovation should take a different approach (see also Chap. 2). As the challenge is not clearly

defined at the operational and strategic levels, client firms should devise a radical innovation framework to create conditions within which preferred suppliers will be introduced to significant and game-changing challenges that require radical innovation. The radical innovation framework includes procedures and processes within the client firm that scout threats from competition and markets, and translate those into descriptive scenarios that can be shared with external partners. The radical innovation framework should also outline the knowledge-sharing platforms, their participants, structure and frequency of interactions between the participants, to ensure that suppliers bidding for the outsourcing project are aware of the commitment required from them in exploring radical innovation opportunities, which would allow them to budget for additional resources required for such activities. Last but not least, the radical innovation framework will include a proposed contractual approach once the client firm and supplier(s) have agreed on the best way to tackle transformative and game-changing challenges. Our recommendation is that a *joint venture* arrangement, separate from the ongoing outsourcing engagement, will be the main vehicle through which radical innovation is carried out.

Step 3: Assess Supplier's Innovation Capability

How would you know whether your supplier could innovate for you? Well, it is unlikely that you will know without carefully answering several questions. The common perception is that most suppliers are capable of innovating in an incremental fashion with an impact on their client operations. Fewer suppliers are capable of offering incremental innovation at the strategic level, usually as a reaction to client requests and by setting up a separate contract for such projects. Can you then identify the supplier that is capable of delivering both incremental and radical innovation for you on an ongoing basis?

Oshri and Kotlarsky (2011) developed a set of questions to consider when assessing the bidding supplier's ability to innovate and, therefore, may help client firms to select those supplier(s) that meet the client's expectations in terms of both service and innovation.

Question Number 1: How do you understand and define innovation in the context of outsourcing?

Most suppliers define innovation as ‘anything that the client firm considers to be innovation for them’. This is clearly a very broad definition—is this definition helpful in achieving innovation in outsourcing? Yes and no. It is helpful in the case of radical innovation where the client and the supplier will be facing major challenges to clearly define what the solution would look like and its impact on business performance. However, this definition is not so helpful in the case of incremental innovation, in particular where the impact is at the operational level, simply because such advancements could and should have been captured in the outsourcing contract. Treating such improvements as an innovation project suggests that the client did not develop a complete roadmap for the service when outsourcing it and, therefore, did not scope development efforts to be included in the contract. The supplier, on the other hand, is treating requests for changes from the client as innovation projects, though these developments could have been handled as an extension of the contract. In an ideal world, the supplier should have gone the extra mile and helped the client firm realise and scope these requests as part of the contract; however, considering the limited exposure the supplier has to the client’s service roadmap, such expectation is, in fact, unrealistic. Yet, both the client and the supplier should avoid treating incremental/operational changes as innovation projects; these are simply specifications the client has missed while scoping the project.

Question Number 2: What is your strategic approach to achieving innovation through outsourcing?

We have learnt that most suppliers have a clear operational approach in how opportunities to improve services can be taken forward, but only a few suppliers can clearly articulate their strategic roadmap to instilling innovation within the outsourcing setting. Developing a strategic innovation capability requires two fundamental elements in the supplier’s service philosophy: first, that any innovation engagement must deliver value. The key aspect here is that the innovation engagement is not

necessarily delivering a monetary value but the value can be in the form of learning, collaborating, experimenting and even failing (but learning from the failure). Second, that innovation through outsourcing is perceived to be systematic, which means that both the supplier and the client will be looking to create opportunities to innovate throughout the outsourcing engagement.

Question Number 3: Do you have a proven methodology to deliver innovation through outsourcing?

Without doubt, most suppliers will be able to walk you through what they can do, but only if you ask them for innovative solutions. They will be able to point out resources available within the firm that can carry out an innovation project. So it is true, most suppliers will be able to innovate for their clients; however, it will not be a systematic capability and very likely it will be one that lacks organisational assets to constantly search and leverage opportunities to innovate.

An alternative approach is to develop an innovation methodology that requires an investment from the supplier but at the same time signals the supplier's readiness and its potential to deliver innovation in a regular and systematic manner.

The *innovation methodology* at IBM, for example, is made of five steps. It includes the following: (i) agreeing on the *definition of innovation*, (ii) defining the *scope of the innovation* project (the contractual setting of the innovation project), (iii) *deciding on key areas* (themes) to focus on, (iv) *developing an action plan* for each innovation project and (v) *deciding on the governance process* of the innovation programme (a joint governance structure where both the client and IBM are committed to deliver value).

Question Number 4: What organisational assets bring together your innovation methodology and strategy to ensure a systematic delivery of innovation through outsourcing?

There can be numerous organisational assets that suppliers could develop to support the systematic delivery of innovation in outsourcing settings.

First and foremost, the organisational structure needs to include leadership and operational roles that make the link between the service outsourcing and the innovation organisational structure. For example, IBM set up an innovation leadership structure within the outsourcing organisation in 2008. This network of roles was instituted into the regional and account level of the outsourcing organisation. In addition, there was a network of innovation managers at the account level that completed this highly structured and formulated organisational structure for innovation within IBM.

Second is the provision of R&D laboratories and the links between innovation leaders and this asset. Many suppliers have established R&D laboratories; however, technological inventions produced by these R&D centres do not always find their way to the outsourcing account level. Demonstrating links between the innovation network and the R&D assets is key in signalling the supplier's ability to both innovate and deliver innovation at the outsourcing account level.

Third is a change management and awareness programme for innovation within the service outsourcing organisation and also with the client. This programme should be designed to achieve a shift in the mindset of the players involved in service outsourcing so that they develop innovative mentality and pursue opportunities to innovate.

Fourth is the entrepreneurship approach that innovation leaders need to pursue in seeking solutions for business problems. While formal structures and a systematic approach are key here, there is an informal and entrepreneurial component that needs to be nurtured and encouraged. Entrepreneurship in the outsourcing context can manifest itself in various forms and shapes. For example, where appropriate, entrepreneurship can be the ability of innovation leaders to divert from the formal innovation methodology and apply agile structures that bring together speed, creativity and 'out of the box' solutions.

Question Number 5: What KPIs would you use to measure the returns on the innovation project?

This is probably one of the most challenging aspects of innovation in outsourcing for both the supplier and the client. This is simply because

Concept	Outsourcing	Innovation
Value Specification	Easy to specify and scope	Difficult to specify and scope
Ways to monitor and measure value	SLAs met, service on par or better, operations orientated (function KPI)	Realized impact on business performance and firm's competitiveness (industry KPI)
Time dimension	Immediate	Long term
Fee Schemes	Fees for service, time and materials, outcome-based	Good will, JV schemes, outcome-based (?)
Stakeholders	Mainly technical champions with some business knowledge	Combination of business and technical champions

Fig. 1.3 Comparing service outsourcing and innovation mentalities. Source: Oshri (2014)

value is a dynamic, ever-changing concept that is often difficult to capture in basic service outsourcing projects (do not confuse value with cost saving!). Figure 1.3 depicts the different mentalities observed in service outsourcing versus innovation settings.

In the context of innovation through outsourcing, value is particularly challenging for both the supplier and client. In service outsourcing, value is fairly defined, measurable and determined at the delivery point. However, in innovation in outsourcing, value can manifest itself in various ways. Sometimes the value in engaging in innovation can be monetised; however, in many cases the value will be abstract, though noticeable. For example, IBM and its clients gained extensive media coverage for some of their joint innovation projects, though it was not always clear what the exact return on these investments was.

In conclusion, we propose that client firms start such a journey by asking the question: *Can this supplier innovate for me?* Part of this answer is still the responsibility of the client firm: to demand innovation, collaborate, participate in knowledge-exchange sessions and be proactive about innovation opportunities. But a substantial element in the innovation premise still lies with the supplier, simply because without an innovation

strategy, systematic innovation methodology and a clear understanding of the expected returns, innovation in outsourcing will still remain the ‘holy grail’ of the outsourcing industry instead of a common and successful practice.

Step 4: Design a Contract for Innovation

Once the supplier-selection phase has been concluded, the attention of the parties involved shifts to the contract and its content. One very clear result from this study is that most outsourcing contracts are not designed to accommodate innovation. Many of these contracts focus on defining service levels, pricing and penalties, tilting the attention of the supplier to a ‘service’ mentality as well as the client’s mindset to monitor outsourcing performance based on well-defined SLAs. Accommodating innovation through outsourcing contracts requires a different attitude. Contracts that accommodate incremental innovations should elaborate on both improvement targets and innovation processes that will commit both the client and the supplier to follow and monitor, including desired targets and rewards if these targets are met or outperformed. In this regard, and often beyond the regular SLA clauses, the incremental innovation clauses should be specific regarding the relationship mechanisms put in place by both the client and the supplier that will support the supplier’s effort to deliver incremental innovation according to the improvement measurements.

The clauses in the contract that refer to radical innovation should provide an elaborative description of the methodology through which suppliers will become partners. In this regard, the contract should describe the process put in place to share transformative and game-changing challenges with the suppliers, the expected participation from the suppliers in such forums and the preferred legal agreement to pursue solutions in the form of radical innovation by one or more suppliers. Our recommendation is that this kind of partnership is established where a clear specification of resources and capital is defined, as well as the approach to appropriate value and manage intellectual property is outlined (see also Chap. 2).

Step 5: Facilitate Relationships Building

It is without doubt that building relationships between the client firm and the supplier is imperative for the success of either incremental or radical innovation. However, the relationship plays a different role in incremental and radical innovation. We have already discussed the various ways client firms can represent the potential leverage for innovation through relationship management. At this point in time, we wish to discuss how relationship management should be executed in incremental and radical innovation.

When incremental innovation is sought, relationship building between the client and the supplier comes second to the contract regardless of the contract type (all but joint ventures). Client firms, therefore, should focus on developing relationships with their suppliers as a complementary element to monitoring the contract. Relationships in incremental innovations should in fact be facilitated through the formal channels, which are already captured in the contract. Some examples of such mechanisms include the regular meetings, shared portals and communication procedures which are elementary in each outsourcing project, however, becoming imperative for incremental innovation.

Radical innovation, however, begs for a different approach according to which client firms need to invest in the interpersonal side of the relationship with the supplier, as a complementary step to the contractual approach. It is imperative that trust and rapport between senior managers (e.g., relationship manager) will be developed and renewed to encourage a collaborative atmosphere between the client and supplier staff. While personality clashes and cultural differences might play a negative role in developing rapport and trust between individuals from the client and supplier teams, there are always opportunities to enhance the relationship dimension by organising informal social events, the use of social media tools and through open and preferably face-to-face communication channels. Clearly, it takes a major commitment from senior managers to develop a collaborative atmosphere, which in our view is only one enabler among many to set up and launch a radical innovation project.

We also see opportunities in harnessing social media and open source platforms to support relationship building between the client and supplier. Social media platforms that serve as collaborative tools will enhance the collaborative experience of the client firm in particular when the supplier and client teams are remote. Similarly, Web 2.0 platforms will enable stakeholders to co-innovate and co-create services regardless of their physical location.

Step 6: Measure Innovation Performance

Most client firms fail to measure the return on innovation delivered by their suppliers. In the academic literature there is general agreement that innovation improves business performance. It flows from this that client firms should invest more in understanding the nature of innovation delivery, its impact on the operational functions within the value chain as well as on the firm's strategic positioning within the market. Such an exercise will allow decision-makers to realise the value delivered by partners and will inform executives regarding the opportunities that emerge in outsourcing relationships. Most firms can, in fact, measure the return on the outsourcing investment, in a quantifiable form, should they follow steps 1 and 2 of the innovation ladder. For incremental innovation at the operational and strategic level, client firms should have developed clear measurement instruments as part of step 1 and 2. These measurement instruments may have to be revisited during the project life cycle. Using the measurement instruments as reference points, the client firm should seek to evaluate whether its incremental innovation targets have been met.

Radical innovation is more challenging to measure; however, the client firm should seek both qualitative and quantitative inputs regarding performance. In terms of qualitative feedback, the client firm should seek input regarding the quality of the network created to arrive in radical innovation. Periodical surveys among members of the joint venture consortium regarding the quality of collaboration, motivation to contribute, assessment of each partner's contribution and intention for future collaboration can provide an indication regarding the 'health' of the joint

venture consortium and the potential to tap into this pool of expertise in future projects targeting radical innovations. Quantifiable measurement tools to assess the impact of radical innovation on business performance should be in the form of benchmarks against industry performance. In particular, as radical innovation was sought to improve the competitiveness of the firm either through operational excellence or strategic positioning, the client firm should judge the impact of the radical innovation through industry-wide performance indicators. For example, the quality of service provided, represented through various measurable indicators such as customer satisfaction, is one performance indicator that can be used by service firms (see also Chap. 3).

Step 6 is not the last step in the innovation ladder. If anything, it is a step that calls for reflection and a stage that offers an opportunity to redesign the innovation framework. Feedback collected during these six steps should serve the client firm in its journey to achieve innovation in outsourcing.

Conclusion

As we can understand from the above, achieving innovation through outsourcing is increasingly realistic as both clients and suppliers are maturing in their ability to go beyond traditional outsourcing relationships and build the governance arrangements and organisational structures necessary for innovating. But innovation with large-scale, long-term impact requires collaboration within clients, and with and across their external suppliers. Without this, innovation, and the consequent high performance, cannot be delivered. Thus, collaborating to innovate requires a change in objectives pursued, relationships with suppliers and how work and innovation are conducted. As part of such change in both the client and supplier's mindset, the parties will need to consider new forms of contracting where risk and gains are shared to incentivise innovation, collaboration and high performance.

Why innovate, and why now? Our answer is that increasing competitive pressures demand much more innovation, and this needs to impact not just back office goals, but also ultimately the customer experience,

organisational performance levels and strategic direction. Emerging technologies also require outsourcing practices that can utilise these and related data, optimally. Meanwhile suppliers are struggling to adapt their business and operating models to these new realities, and ever-more demanding clients. Suppliers need to rethink strategic positioning, their core capabilities, how they engage, what services they offer and how they move into innovating with the client on automation and digitisation. The chapters in this book look to provide evidence-based underpinning for the practices that help both clients and their suppliers to achieve innovation through outsourcing.

In the next section—Managing Outsourcing: Towards Dynamic Innovation—we provide a range of studies that look at empirical examples of effective innovation from which we can derive action principles and practices. Thus, in the next chapter, through a review of 26 successful innovation case studies, we build on the innovation ladder presented above, and offer definitions of key concepts and a framework for accomplishing what we call collaborative innovation. We also give three illustrative case examples of the principles derived from organisational experiences. Chapter 3 researches 24 companies through 48 interviews and also uses survey data to detail how to lead, invent and deliver innovation. In Chap. 4 we look closely at the challenges to innovation through a multi-country study of client and supplier outsourcing experiences. In Chap. 5 we focus on the role of relational and contractual governance, whilst Chap. 6 pinpoints the requisite role of consultants in innovation processes. The third section of the book looks at what we call ‘the new outsourcing’ and provides detailed evidence on recent cloud and automation developments and how these technologies are being adopted as innovations within the global outsourcing market.

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Part II

Managing Outsourcing: Towards Dynamic Innovation



2

Outsourcing Reframed: Delivering on Collaborative Innovation

Leslie P. Willcocks and Edgar A. Whitley

Introduction

As we signaled in Chap. 1, there is a trend for outsourcing relationships to become increasingly managed and leveraged as strategic assets, with clients looking for business ideas, innovation and environmental scanning from their suppliers and a much greater focus on business, not just technical outcomes. The indicators of this can be found in research by, for example, Cullen (2009), Lacity et al. (2009) and Lacity and Willcocks (2009):

- More rigorous planning and measurement of outsourcing relationships
- More contracting based on values, behavior and client demand

L. P. Willcocks (✉) • E. A. Whitley
London School of Economics and Political Science, London, UK
e-mail: e.a.whitley@lse.ac.uk

- Suppliers becoming more entrenched in their client's business—including supporting the client's mainline services
- Suppliers becoming a client of the client and identifying new sales opportunities

This strategic direction sees added-value outsourcing relationships as the norm. Collaboration in a strategic sourcing context means that the supplier and client proactively work together and share the risks, in flexible integrated ways, to achieve high performance on significant, mutually rewarding commercial goals.

Where does innovation fit into strategic collaborative outsourcing? According to Weeks and Feeny (2008), IT outsourcing “neither ensures nor negates innovation.” Instead, the outcomes are likely to depend on “certain attributes within client and supplier and in the relationship between them.” Implicit in this claim is the realization that, for many clients and suppliers, these attributes are underemphasized, and hence a “step-change” in client organizations' outsourcing maturity is required. Achieving this step-change means that the attitudes and behaviors of people in clients and suppliers will have to fundamentally change.

This chapter provides insights into how companies achieve the step-change in outsourcing maturity through practices that enable a process that we call *Collaborative Innovation*. Our findings are based on the experiences of a sample of innovative outsourcing relationships entered into by 26 organizations operating in Europe, the US and Asia-Pacific selected specifically for their relative maturity in sourcing capability (see the Appendix for more details of the research). We present a framework of the four practices required to achieve collaborative arrangements that foster innovation and describe three case histories, drawn from our sample, that illustrate how these practices are being applied.

Outsourcing and Innovation: Still on the Learning Curve

Research into outsourcing has tracked the evolution of the IT services and business service markets since its modern beginnings in 1989 with the seminal Eastman Kodak deal in the US. According to a meta-analysis

of two decades of this research, cost reduction and the desire to focus on core capabilities are the most frequent motivations for outsourcing, and there has been strong success in achieving these objectives (Lacity et al. 2009).

Strategic outsourcing motivations such as commercial exploitation and innovation have been studied far less frequently (Lacity et al. 2010). However, recent reviews of the published research on IT outsourcing (ITO) and business process outsourcing (BPO) indicate there has been a very patchy record when more transformative, multiple objectives have been attempted (see Lacity et al. 2016). Indeed, some researchers suggest that long-term BPO risks include low rates of innovation and the loss of innovation capabilities, particularly if suppliers are asked to assume some responsibility for business process innovation (Shi 2007; Windrum et al. 2009).

Figure 2.1 depicts the four phases we have observed client organizations passing through as their management of outsourcing engagements evolves and matures. Undue optimism in the earliest phase often results

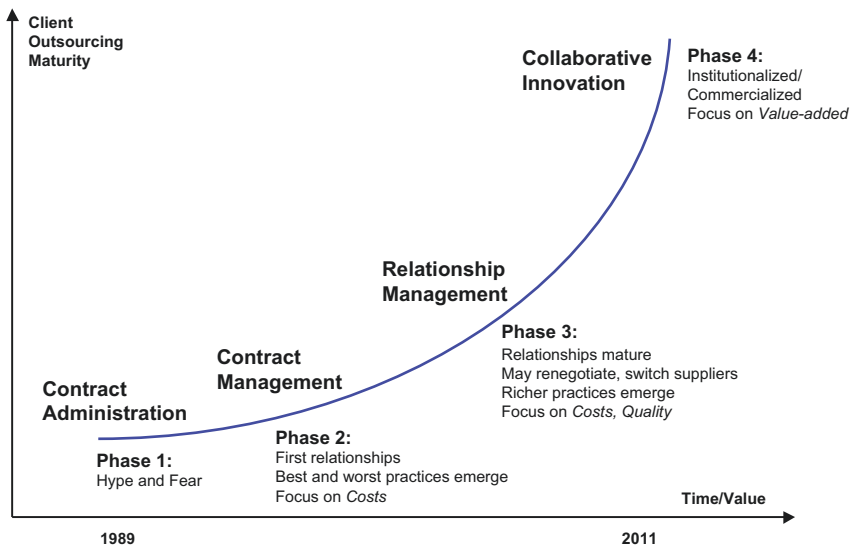


Fig. 2.1 The global sourcing learning curve 1989–2020. Figure 2.1 has been developed from Lacity, M.C., and Rottman, J.W. (2008). *Offshore Outsourcing of IT Work*. Palgrave Macmillan, London

in a debased form of contract management we call *Contract Administration*. In Phase 2 (*Contract Management*), clients tend to be able to manage the contract and focus on costs, but it is only in Phase 3 (*Relationship Management*) that they really begin to focus on how to leverage the supplier's capabilities beyond the strict confines of the contract. Most outsourcing clients have learned the hard way, by making mistakes, finding out what works and what does not, across two or three generations of outsourcing. The wise ones have been "smart in their ignorance." They have taken an incremental route into more outsourcing, learning as they go, limiting their risk exposure, building up their understanding and retaining the capability to manage effectively the sourcing process to ensure it is aligned with their business strategy and imperatives.

By around 2008, with the financial crash, most organizations outsourcing or contemplating outsourcing were standing on a cusp of a decision—whether, in a recessionary climate, to follow a traditional cost-cutting route, with limited payoffs, or make a step-change toward sustainable cost reduction together with business-focused innovation. Throughout the subsequent ten years, the dilemma increased; as competitive pressures mounted, new technologies implied different business and operating models, and clients became more demanding. What we call collaborative innovation became a regular feature in clients' request for proposals (RFPs), but delivering on this required changed mind-sets and behaviors from clients and their suppliers alike. In Fig. 2.1, we call this step-change to Phase 4 *Collaborative Innovation*.

Note that Fig. 2.1 shows how the general outsourcing maturity of organizations has evolved, and will develop, from 1989 to 2020. However, organizations tend to be much more mature on their ITO, with most currently in or approaching Phase 3 (Relationship Management), and much less mature on their BPO and offshore outsourcing, due to lack of experience and lack of transfer of learning. Where a specific organization is on the learning curve in, say, 2018 would depend on its retained capability, the number of generations of outsourcing it has gone through and the degree of learning absorbed, as well as the objectives being pursued.

Our research began by reviewing organizations that were moving, or had moved, beyond Phase 3. In particular, we focused on organizations that had made a step-change and exhibited a fundamentally different

client role with new attitudes and behaviors to achieve collaborative innovation with their ITO and BPO suppliers.

Defining Collaborative Innovation

Studies of ITO and BPO engagements over the last 20 years have regularly reported that the rhetoric of strategic relationships, partnering and innovation are very rarely converted into practices and superior outcomes (Dibbern et al. 2004; Kern and Blois 2002; Lacity et al. 2016). It is therefore important to understand what is meant by collaboration and innovation and how outsourcing clients see the roles of suppliers and themselves in facilitating the step-change in sourcing maturity needed for a new performance agenda.

Collaboration

Collaboration is a cooperative arrangement in which two or more parties work jointly on a common enterprise toward a shared goal. In the context of business relationships, collaboration signals close partnering behaviors developed over and for the long term. These behaviors are characterized by the high trust, flexibility, risk sharing and investment of resources and time essential if high performance on individual and shared goals is to be achieved.¹

All successful outsourcing is based on a good working relationship. But deeper, more trust-based relationships are required if external resources are to be used for more sophisticated, risk-bearing and critical services such as large-scale IT development projects, business process changes and technology innovations. A sense of the difference is communicated by the following comments made by some of those we interviewed:

The standard behavior in an organization is everybody does their job, they deliver it and then somebody else goes and creates the same thing over and over again; but with collaboration comes leverage. In collaboration, you will be welcoming an advance from me to be able to find out how you did

it and to share it with me. Partnering is an ongoing relationship where you are leveraging the skills that your partner has and learn from them. Leadership is key in making progress in collaboration. (IT Development Manager, Insure 2)

What we need is collaboration from our suppliers. If they are competitive then we have a very special meeting and say this behavior is unacceptable; you have to work together. Collaboration only happens if there is a higher-level goal for everyone. We put in the necessary incentives for them to put their best people on it and they can't succeed without the help of the other suppliers. (Director of Innovation, KPN)

In these new relationships, clients see suppliers as having an integral proactive role in collaborating to innovate:

A proactive partner is aligned in thinking with you and comes up with new ideas and innovation. They think for me. They say we can do it like this and it will cost you that and we can do it with these people in this time. They make a whole business case and I just have to say, okay, we do it or we don't do it. That's being very proactive. (Senior Contract Manager, Insure 1)

We have established a roadmap to become world class within shared services. But of course, when we do that, we need to have sourcing partners that are on the same roadmap and are willing and able to change and to be innovative. (Head of Service Delivery, StatoilHydro)

Innovation

Innovation is the introduction of something new that creates value for the organization that adopts it.² The literature on innovation talks of product, process and organizational innovations—that is, new products (or services), new ways of doing things and new ways of organizing and managing people. Innovations are also characterized as incremental (a series of small changes), radical (large, transformative change) or revolutionary (game changing) (Davenport et al. 2006; Mckeown 2008).

Building on our own comments in Chap. 1, Weeks and Feeny (2008)³ offer client-focused definitions more suited to what collaborative arrangements with business and IT service companies are trying to achieve. They identify three types of innovation:

1. *Operational innovations* are technology, work and personnel changes that do not impact firm-specific business processes. For example, IT operational innovations might include new e-mail platforms, new operating systems, remodeling of the IT infrastructure, new IT staffing arrangements or introducing agile systems development.
2. *Business process innovations* change the way the business operates in some important ways. Examples include fundamental changes to business processes and relationships with customers brought about by implementing CRM applications; using cloud-based processes as a service; IT-enabled changes in project management systems that change the basis on which parties would design, develop and deliver big projects; and IT-based billing system innovations that create new linkages between accounting, maintenance, service fulfillment and customer reporting.
3. *Strategic innovations* significantly enhance a firm's product or service offerings for existing target customers, or enable a firm to enter new markets. An example would be to introduce technology into a casino to automate (and thus speed up) roulette games and so increase revenues from "high rollers." Another would be technology for remote monitoring of autos to pre-empt mechanical breakdowns and to enable an auto parts distribution company to be proactive in delivering spares.

A Framework for Collaborative Innovation

Our case studies suggest that four fundamental practices underpin effective collaborative innovation: *Leading*, *Contracting*, *Organizing* and *Performing*. As shown in Fig. 2.2, these four practices have a cyclical sequence.

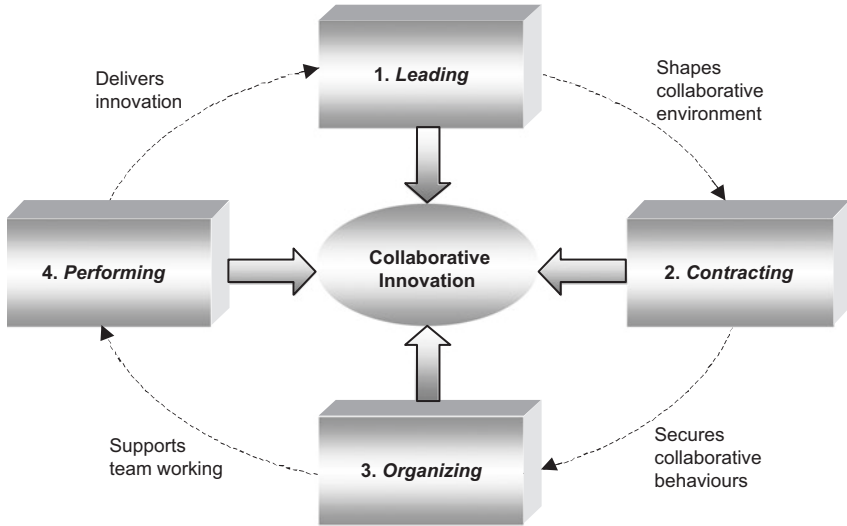


Fig. 2.2 Four practices underpin collaborative innovation process

1. *Leading* shapes and conditions the collaborative environment for Contracting, Organizing and Performing at all levels in each of the collaborating parties. The Leading practice also changes the approach to managing risk: both parties share the responsibilities for mitigating risks and exploiting opportunities.
2. New forms of *Contracting* are required to ensure successful collaborative innovation. Such contracts specify how risks and rewards will be shared in ways that provide incentives for innovation, collaboration and high performance to achieve common goals.
3. *Organizing* for innovation requires more co-managed governance structures and greater multifunctional team working across the collaborating organizations. Team working now requires the ability to collaborate within a client organization, between client and supplier and between suppliers in multi-supplier environments. Organizing for collaboration also means assigning responsibility for delivering results.
4. Leading, Contracting and Organizing in these ways provide incentives to change existing modes of *Performing* and enable, collective delivery of superior business outcomes. Collaborative innovation is

most effective when it generates high personal, competence-based and motivational trust among the parties. High trust is a key element and shaper of successful collaboration, which requires the client-supplier relationship to be open, based on learning, adaptation, flexibility and interdependence.

Each of these four practices is not unique to collaborative outsourcing; they are found in many partnering arrangements. For example, while Contracting is clearly an element of all partnering arrangements (including general outsourcing), the form of Contracting required for collaborative innovation is very different from that found in conventional, cost-focused arrangements and requires a step-change in organizational attitudes and behavior. The four practices are examined in more detail below.

Leadership for Collaborative Innovation

Leadership, which is important for all forms of outsourcing, creates the environment for collaborative innovation in outsourcing engagements. We will meet this proposition again in Chap. 3. In earlier IT outsourcing deals, especially the long-term “strategic alliances” signed in the 1990s,⁴ innovation was invariably cited as something the client expected and the “world class” supplier could and would deliver. Study after study, however, has found no evidence of innovation in such deals (see Overby 2010).⁵ For example, even in what is considered a relatively successful finance and accounting outsourcing deal at a major oil company, one study, by Lacity and Willcocks (2001), reported an IT executive who said:

We are not getting dynamic innovation, to say the least, on a continuing basis. After the initial burst of creativity, it went flat.

One response to this problem has been to create special “innovation funds” that suppliers can bid for. However, research has found that even large innovation funds have rarely produced lasting, important innovations (Weeks 2004). The same applies to many joint venture and equity

share initiatives designed partly to stimulate innovation. They disappointed invariably because they were mere add-ons to mainly fee-for-service deals where, in practice, both clients and/or suppliers prioritize service and cost issues above innovation issues. Thus, while these initiatives claim to espouse innovation, in practice, they tend to encourage low levels of sustainable development and performance transformation.

Contracting for Collaborative Innovation

A major issue in Contracting for innovation is the need to frame contracts so that they provide incentives for sharing knowledge and best practice across all the parties involved. There are real dangers in contracts that lead clients to become overly reliant on their suppliers for technical and business innovation. Moreover, contracts structured around cost and service issues do not encourage the supplier to innovate. As a result, the supplier focuses both on selling extra services to increase its margins and on solving today's pressing crises and operational problems.

A significant issue is the approach taken to risk in Contracting. Traditionally, both client and supplier look to transfer as much risk as possible to the other party. The actual distribution of risk depends on negotiating power but, if it is skewed to the detriment of one party, it can damage both the relationship and performance, and can severely curtail innovation. A range of practices and behaviors can be used—for example, in cost-plus contracting—to convert performance into partnering and collaborative innovation.

Our research shows that a step-change in Contracting is required if collaborative innovation is to be fostered in outsourcing deals. The greater the innovation ambition, the more this is likely to have a distinctive risk-reward component in the Contracting practice.

Organizing for Collaborative Innovation

Providing Leadership to shape a collaborative environment and supporting this by Contracting practices that share risks and encourage collaboration is not sufficient to make collaborative innovation a reality.

Significant organizational challenges must be also addressed. Technical work requires the application of existing specialist know-how, and techniques can be outsourced relatively safely, assuming competent specialists can be hired. But as more work becomes what Heifetz (1994) calls “adaptive,” more multiple stakeholders need to be engaged with defining the problem and working together on arriving at and implementing a solution. An adaptive challenge is a problem, often difficult to specify precisely, where the gap between values and aspirations on the one hand and circumstances on the other hand cannot be closed by the application of current technical know-how and routine behavior. Adaptive challenges require experiments, discoveries and adjustments from many parts of an organization.

Innovation, then, can be viewed as essentially a response to adaptive challenges, where problems and solutions are unclear. Meeting these challenges will require a multifunctional team working in an environment where learning is vital and innovation will usually be necessary, and where a general business goal rather than precise metrics points the way forward. Organizing the required collaborative behaviors in a way that will shape the context and process by which all this can happen is essential for enabling collaborative innovation in outsourcing deals. Moreover, the more radical and business-focused the required innovation is, the more that Leadership should be provided primarily by the client.

Performance Change for Collaborative Innovation

Leadership, creative Contracting and Organizing in new ways to support team working are the fundamental building blocks for the performance changes needed to undertake collaborative innovation.

The Performing practice of the collaborative innovation process is determined by the underlying cultures of client and supplier. A coercive and secretive culture, focused on short-term gain and cost reduction, can be very limiting in terms of what can be achieved by either party. Recessary conditions, such as those prevailing during the period of our study, can put pressure on organizations to regress to this default position. But as Mckeown (2008) suggests, a crisis is a terrible thing to

waste and the best way to deal with a recession may be to innovate your way out of it.⁶ Cultural change can therefore come about as a result of a crisis, but lasting collaborative innovation draws on Leadership, Contracting and Organizing, which create rising levels of trust, team-working and hence performance (see Willcocks et al. 2011; Kern and Blois 2002; Koh et al. 2004).

Performing as trusted partners is a key component for collaborative innovation. Although studies have noted that there is no such thing as instant trust in outsourcing, it can be built over time through demonstrable performance.

The following three case studies, drawn from our research sample, illustrate how the four practices of the collaborative innovation process are being applied.

Three Case Studies of Collaborative Innovation

The case studies illustrate how three organizations perceive and practice collaboration with their outsourcing suppliers. Although in each case, the organization was seeking to achieve all three types of innovation defined earlier—IT operational, business process and strategic—our descriptions emphasize the pursuit of strategic innovation goals.

KPN

KPN provides high-quality telephone, Internet and television services and products. It is also an all-round provider of information and communications technology (ICT) services. Based in the Netherlands, KPN serves both homes and businesses. Domestic consumers in the Netherlands purchase fixed and mobile telephony, Internet and television services. Business customers use an entire array of innovative and reliable services that include everything from telephony, Internet and data traffic/management to the management of ICT services. In Germany, Belgium and elsewhere in Western Europe, KPN's services consist mainly of mobile telephony. The company made a profit of €2.5 billion (US\$3.54 billion) in 2007 on annual sales of €12.6 billion.

In the 2009–2010 financial year, KPN’s business in the Netherlands underwent a radical transformation. The all-IP network announced in March 2005 moved into its final phase with the implementation of a new access network. In addition, KPN decided to radically simplify its business, both at the front end in retail segments and at the back end in network operations. The significant cost reductions generated by this simplification were reinvested in revenue growth, leading to improved margins.

In 2009–2010, KPN had four major outsourcing suppliers, together with over ten smaller suppliers either on short-term contracts or brought in to supplement capability where needed. The major suppliers provided a mix of technical, development, project management and consultancy skills.

Hans Wijins, Director of Innovation at KPN (and one of the few interviewees in our study whose title formally included responsibility for innovation), suggested that KPN had espoused a policy of recognizing the importance of innovation as a key part of its organizational strategy. For Wijins, the maturing of the global outsourcing services market had now made it possible to do very large jobs and make large, strategic innovations:

You can’t outsource innovation. Our responsibility is for time to market, for business development, for innovation; we must have the architects. We don’t outsource our vision. But we really do believe that innovation can only be done if we use a lot of capacity outside of the company. I really believe that (as a client) we have to use the knowledge and the power from places like India.

For KPN, innovation in outsourcing deals is related to what *new opportunities and capabilities* it brings to the business. For example, Wijins noted that cost cutting was not the main goal for outsourcing network operations:

We are looking to suppliers that can help us in transformation—and not only in the existing network. It has to be a combination of cutting costs and innovation together.

He saw KPN as being responsible for creating the strategic innovation plan for the next few years. He felt that a lot of sector-based innovation in the telecom industry was no longer succeeding and that KPN had to

find cross-sector innovation in the future. The *goals* for such innovation had to be very clear and this started with board-level *Leadership*. As Wijins explained, the first step was the strategy to market and the next was the architecture:

As an example, we put the design teams from the several suppliers together in one building and in five months together they built the new IT solution. Designing, building and testing their own parts are the responsibilities of each supplier; we have the integration function and the architecture.

KPN draws on various sources of potential innovation from its network of suppliers, and Wijins noted that this went *beyond IT innovation*:

We are only the facilitator. We bring together those technologies in IT and in our network and take the products to the customers. We are not the most innovative party. We have to challenge the suppliers for innovation... and not just on technology, but on processes, products—wherever there is knowledge to be released,

Other KPN interviewees stressed that the company wanted to collaborate and not just manage contracts. If an outsourcing client only manages the contract, it makes it much more difficult to work with several suppliers:

If [a supplier is pushing its own agenda] then we have a special meeting and say this behavior is unacceptable; you have to work together. Collaboration only happens if there is a higher-level goal for everyone. We put in the necessary incentives for them to put their best people on it and they can't succeed without the help of the other suppliers. (IT Manager, KPN)

KPN's *Contracting* strategy was therefore to build long-term relationships with several partners focused on quality and delivery (Cohen and Young 2005; Hagel and Seely Brown 2005). The company did not want to outsource everything to one party and say, "okay, we are not involved any more." The board wanted to be involved in *Organizing* KPN's destiny, while facilitating team working with suitable suppliers in its network in a process of co-creation.

Working in this way meant that quite different attitudes and behavior were needed from those exhibited and rewarded in more traditional outsourcing relationships. These components were key to the *Performing* practice of the collaboration innovation process, namely the delivery of a major technical innovation in the telecom network that enabled faster and different services to be delivered to end customers.

StatoilHydro

StatoilHydro is an integrated oil and gas company based in Norway. It is the leading operator on the Norwegian continental shelf and is an expanding international company. It focuses on innovation in oil and gas exploration and production to recover valuable resources that were previously thought unreachable. StatoilHydro's oil and gas portfolio ranges from development projects to mature fields. The group is the second biggest gas producer in Europe and the sixth biggest in the world. StatoilHydro trades in petroleum products, methanol, power and emission allowances, and is the world's third largest producer and net seller of crude oil.

StatoilHydro is a mature outsourcing organization, especially in ITO, with high-value, multifunctional shared services that have been operational since 1993. Its IT is divided into two areas—infrastructure and applications. It uses sourcing to fill capacity gaps and then to move additional competence into the organization. Costs have never been the driver for sourcing as StatoilHydro's primary focus has always been on addressing capacity issues.

StatoilHydro does not have a single ITO supplier and looks for, and expects, extra value from each supplier. It has two major suppliers and more than ten other suppliers. One of the major suppliers has provided the IT service desk since 2003. This desk supports IT and SAP applications in all the company's geographic locations. It is based in StatoilHydro's premises and on its ITIL-based⁷ service management processes. The service desk is also integrated with other suppliers' processes.

StatoilHydro has established a roadmap to become world class in the provision of shared services. To achieve this goal, it needs to have sourcing partners that *share its innovation goals*, are flexible and willing to change and are looking for ways to be innovative throughout the contract period.

Drawing on its ITO experience, StatoilHydro developed a distinctive approach to *Contracting* when seeking innovation through collaboration. The approach requires suppliers to understand the company's business needs, which requires changes in the typical supplier attitudes and behavior. Suppliers are given the flexibility to "surprise" the client rather than being tied to a strictly defined, formal relationship.

Spring Global Mail

Spring Global Mail (Spring) is a world leader in the provision of international business mail services. It is a joint venture company, formed in 2001 by three of the world's most dynamic and respected postal organizations: TNT in the Netherlands, Royal Mail in the United Kingdom and Singapore Post. With its headquarters in the Netherlands (Amsterdam), Spring employs 1100 people in 25 countries, and has become the world's largest independent cross-border mail distribution company. It uses its creativity and experience to find solutions to the most complex cross-border mail requirements. Spring's customers include some of the world's largest senders of cross-border mail.

Spring's CFO, Wouter Hijzen, pointed out that, while the company has three major suppliers and many smaller ones, it itself is an outsourcing company. It takes over responsibility for all the mail operations of its customers. Clients choose Spring to operate their businesses more efficiently and cost effectively. The company is constantly innovating in the way it offers services, including developing the remailing business, where Spring is the biggest service provider. Its role as an outsourcing service provider has provided Spring with major insights into its expectations of its own suppliers.

As Hijzen told us:

You establish trust through delivery but when it goes wrong you have to show Leadership. Taking responsibility is the beginning of Leadership. If you keep telling people what to do they will never become leaders.

Spring's in-house finance function was outsourced in September 2008, when the company signed a nine-year contract with one supplier. Spring has also outsourced all its IT services across the world to a TNT company.

For Hijzen, innovation is nothing more than behaving and looking at things differently. It doesn't necessarily have to concern a new product or service. The finance outsourcing deal is a case in point, as Hijzen explained:

We have outsourced to make ourselves better; that's the main thing that triggers innovation. We didn't have an electronic system to approve invoices. We couldn't afford it; it was just too expensive to build it for ourselves. But the supplier had one. We now make use of that. I don't think it's innovation for them but it is for us.

For Hijzen, trust is most important; without it there can be no innovation. Trust is built by novel forms of *Organizing*, which involves "letting some things go." If you have to keep referring back to the contract, you are in dispute and trust is lost. That is why, in Spring's *Contracting* practice, the general outline of the contract is more important than the details because Spring knows that suppliers can only make slim margins if they do not innovate. For Spring, it is not important to have innovation mentioned explicitly in the contract, because Hijzen knows his suppliers will seek to innovate. The choice of suppliers and trust in them comes before the formal *Contracting* process. As Hijzen noted, this trust is created by a particular form of *Leading*:

In Spring, we always say it's a team. It's not a family. You have to work together, but you don't have to sleep together.

Before it outsourced, Spring had achieved maximum cost effectiveness from its back-office functions. The big reason for outsourcing was because it could not make further savings. Outsourcing therefore was not about cost savings or efficiency gains but to make IT and finance better and to make the people better.

Lessons Learned: Moving to Collaborative Innovation

In Fig. 2.2, we presented the four fundamental practices of an effective collaborative innovation process: *Leading*, *Contracting*, *Organizing* and *Performing*. The three cases described above have provided specific

examples of each of these practices. Based on the experiences of these three firms, together with supporting evidence from the remaining 23 organizations we studied, we have identified four lessons that can be applied when moving to collaborative innovation.

Client and Supplier Should Jointly Develop a Higher-Level Goal

Collaborative innovation in outsourcing requires a higher-level goal that can only be achieved by joint client-supplier efforts. Defining such a goal requires a particular form of *Leadership* that recognizes that strategic innovations can be achieved only in situations where everyone stands to gain something. Invariably, the supplier has capabilities whose potential needs to be exploited in innovative ways for the benefit of the client.

Design Contracts to Include the Sharing of Both Risks and Rewards

Successful collaborative relationships arise when vendor contracts are designed to include the sharing of both risks and rewards. Contracts that are too tightly specified squeeze out any chance of innovation. Contracts should therefore focus on business imperatives (the “what”) but also allow for adaptability in how these are achieved (the “how”). A particularly striking example of this was provided by one of our interviewees at StatoilHydro:

Innovation comes from a supplier that surprises me! I always say to my people and to our suppliers ‘surprise me.’ I want them to be proactive. They do it before you ask them. (Rune Aase, IT Senior Executive StatoilHydro)

Define Co-Managed Governance Structures that Support Teams Collaborating on Adaptive Work

Collaboration requires client and supplier personnel, and personnel from different suppliers, to work together in teams on adaptive work.

Co-managed governance structures are required to support such team working. When establishing teams, it is important to differentiate between technical work that can be delegated to specific suppliers and adaptive work that requires people from the client and suppliers. Adaptive work requires collaborative and open relationships between team members that value sharing and learning and are based on mutual benefit.

Ensure the Relationship Between Client and Suppliers is Based on Trust

Collaborative innovation can only succeed when the relationship between client and suppliers is based on and sustains trust between all the parties. There are three types of trust: personal, competence and motivational. Personal trust is the confidence an individual has that someone else will work for the good of the relationship, based on that person's integrity and adherence to moral norms. Competence-based trust exists when one party has confidence that the other will be able to successfully deliver their allocated tasks and responsibilities. Motivational trust is where both parties believe the rewards and penalties they experience are geared toward the achievement of joint goals—a “win-win” situation. Complete trust, involving each of these three areas, can be achieved only by adopting the four practices of the collaborative innovation process depicted in Fig. 2.2.

Conclusion

Our research suggests that innovation using the external services market is increasingly realistic but requires that both clients and suppliers are mature in their ability to go beyond traditional outsourcing relationships and build the collaborative arrangements necessary for innovating. This means clients can move from what we might call contract administration and outsourcing management to a new phase of collaborative leadership. They can also develop a new performance agenda. In order to achieve this transformation our research suggests further lessons:

1. Without an innovation focus, outsourcing can achieve cost cutting mostly of a one-off kind or at best cost efficiency—similar service at lower cost.
2. Focusing on innovations in IT operations can and does achieve larger, sustainable cost reductions. All our study organizations looked for, and achieved, IT operational innovation from their outsourcing arrangements. Interestingly, only eight said this had been a long-term occurrence. For 18 organizations, the demand for innovation goes back up to 10 years, but the operational mode for achieving this with their suppliers has been found only in the last 4 years, supporting the empirical evidence that innovation through outsourcing (ITO and BPO) has been a relatively recent phenomenon even among those leading collaborative practice.
3. Consistent with the extant literature as on 2018, outsourcing the collaborative capabilities of all parties determine the type and degree of innovation possible. However, our study suggests that only deep collaboration makes large business process and strategic innovations very feasible. This rule extended across our sample where we found 21 organizations achieving significant IT operational and business innovations. Seven of these were also recording strategic innovations. Another five organizations were achieving only IT operational innovations.
4. The real performance impacts over time come from business process and business product/service innovations. Business process innovations can create sustainable business improvements in areas much bigger than IT operations alone—a bigger target resulting in innovation with a greater impact. Business product/service innovations can and do support firms' revenue and profit growth targets.
5. Innovation is risky. Successful collaborative innovators on both client and supplier sides find ways of sharing and offsetting risk. They also galvanize cooperative behavior toward lessening risk and achieving shared goals.
6. Collaborating to innovate requires a step-change in objectives pursued, relationships with suppliers and how work and innovation is conducted. Our study of effective practitioners suggests distinctive practices for success. These can be classified into a fourfold framework—Leading, Contracting, Organizing and Performing.

7. *Leadership* shapes the context for collaboration, innovation and high performance and is primary. Leadership deals with adaptive challenges and must be at all levels in each of the collaborating parties. Leadership also changes the approach to risk in order to share and manage down risk and manage in opportunity.
8. New forms of *contracting* are required to *secure* successful collaborative innovation. Such contracts share risk and reward in ways that provide incentives for innovation, collaboration and high performance to achieve common goals.
9. *Organizing* for innovation requires more co-managed governance structures and greater multifunctional *teaming* across those organizations and people responsible for delivering results. Teaming now requires the ability to collaborate within a client organization, between client and supplier and between suppliers in multi-supplier environments.
10. Leading, contracting and organizing in these ways provide incentives to change existing modes of behaving and enable collective superior business *performance*. Collaborative innovation is most effective when it generates high personal, competence-based and motivational trust among the parties. High trust is a key component and shaper of the collaborative, open, learning, adaptive, flexible and interdependent behaviors required.

Appendix: Research Methodology

We studied 26 organizations between 2008 and 2011. These organizations were selected because of their considerable outsourcing experience and sourcing management maturity. They covered a range of major industry sectors and were drawn from medium, large and multinational corporations based in Europe, the US and Asia-Pacific. As shown in the table, five were achieving only IT operational innovations through new forms of collaboration. The other 21 were involved in deep collaboration that was delivering IT operational and business process innovation. Eight of these were also delivering strategic innovations.

Organization	Sector	Revenue, 2010 (\$US)	Employees, 2010	No. of deals	Type of ITO/BPO innovation	Interviewees
KPN	Telecoms	\$11b	34,000	4	O, P, S	Director of Innovation, IT Manager, Supplier Relationship Executive
Telco 1	Telecoms	\$25b	43,000	5	O, P, S	CIO, Transformation Director, Supplier Executive, CFO
Telco 2	Telecoms	\$65b	85,000	2	O, P, S	CIO, IT Relationship Manager, Supplier IT Executive
Telco 3	Telecoms	\$6b	13,000	2	O, P	CIO, IT Operations Manager, Supplier Account Executive, Service Delivery Manager
Aero	Defense and aerospace	\$31b	107,000	2	O, P	HR Director, IT Executive, Supplier Account Executive
Bank 1	Banking	\$19b	44,000	3	O, P, S	CIO, Service Delivery Manager, Supplier Operations Manager, Supplier Executive
Bank 2	Banking	\$9.5b	38,000	4	O, P	CIO, IT Strategy Manager, Supplier Business
Insure 1	Insurance	\$44b	28,000	4	O, P	Development Manager BPO Relationship Manager, Senior Contract Manager, Supplier Executive
Insure 2	Insurance	\$9b	18,000	3	O	IT Development Manager, IT Operations Manager, two Supplier Executives

(continued)

(continued)

Organization	Sector	Revenue, 2010 (\$US)	Employees, 2010	No. of deals	Type of ITO/BPO innovation	Interviewees
Insure 3	General insurance (market)	\$5.4b (profit)	2500+	2	OP	CIO, IT Development Manager, Supplier Account Executive, Supplier Service Manager
StatoilHydro	Oil and energy	\$85b	28,000	2	O, P, S	IT Senior Executive, Head of Service Delivery, IT Development Manager
Energy 1	Energy utility	\$620m	2000+	2	O	IT Director, IT Operations Manager, Supplier Executive
Energy 2	Energy exploration	\$15m operating loss	100+	1	O, P	IT Manager, Innovation Manager, Supplier Account Executive
Energy 3	Energy utility	\$58b	88,000	3	O, P	IT Manager, General Manager, Supplier Operations Executive
Manu	Manufacturing	\$10b	109,000	5	O	IT Director, Development Manager, two Supplier Executives
Distrib	Car components distribution	\$650m	1100	2	O, P, S	IT Manager, Operations Manager, Supplier Executive
Leisure	Gambling and leisure	\$2.1b	5000+	1	O, P, S	IT Development Manager, IT Developer, Supplier Executive
Spring Global Mail	Postal services	\$5.4b	11,000	4	O, P, S	IT Director, IT Operations Manager, Supplier Executive

(continued)

(continued)

Organization	Sector	Revenue, 2010 (\$US)	Employees, 2010	No. of deals	Type of ITO/BPO innovation	Interviewees
Mail 1	Postal services	\$4.8b	35,500	4	O, P	CIO, IT Architecture Manager, Supplier Executive, Supplier Operations Manager
Water 1	Water utility	\$660m	1000+	1	O	IT Director, IT Operations Manager, Supplier Executive
Water 2	Water utility	\$850m	1300+	2	O, P	CIO, IT Operations Manager, Supplier Executive
Public	Public sector financial	\$14.4b (total resources)	1500+	1	O	Sourcing Director, Relationship Manager, Supplier Executive, CIO Supplier
Aviation	Airport authority	\$3.7b	13,000	2	O, P	CIO, Project Director, two Supplier Executives
Health	Private sector healthcare	\$1.2b	19,000	2	O, P	CIO, Operations Manager, Supplier Executive
Retail 1	Consumer electronics	\$49b	180,000	1	O, P	IT Manager, HR Manager, Supplier Executive
Retail 2	General food consumer	\$16b	101,000	2	O, P	CIO, IT Operations Manager, Supplier Executive

O, IT operational innovation; P, process innovation; S, strategic innovation

For each organization, we interviewed at least three client and supplier stakeholders, all highly experienced outsourcing practitioners, about outsourcing models, possibilities and their actual practices. Follow-up interviews were carried out in late 2010 and early 2011 to gather the latest information on innovation outcomes. In total, we carried out 86 interviews and studied numerous supporting documents supplied by the participating organizations.

Analyzing the experiences of these 26 organizations enabled us to identify common themes, practices and principles, which we have distilled into the collaborative innovation process framework depicted in Fig. 2.2.

Notes

1. Our definition of *collaboration* is consistent with strategy literature, but not with earlier outsourcing literature. See also Kern, T., and Willcocks, L.P. (2000). *The Relationship Advantage: Information Technologies, Sourcing and Management*. Oxford University Press, London.
2. The definition was developed by Intel's IT Innovation Group for in-house use. See Westerman, G., and Curley, M. (2008). "Building IT-Enabled Capabilities at Intel". *MIS Quarterly Executive*, 7 (1): 33–48.
3. Weeks, M.R., and Feeny, D., 2008, *ibid.*, pp. 127–146.
4. Examples include EDS-Xerox, IBM-Lend Lease, BAE-CSC and UBS-Perot Systems.
5. See also Cramm, S. (2007). "Does Outsourcing Destroy IT Innovation?". *HBR Blog Network*, available at <http://blogs.hbr.org/hbr/cramm/2010/07/does-outsourcing-destroy-it-in.html> 2010.
6. Mckeown, M., *op. cit.*, 2008.
7. Information Technology Infrastructure Library, a set of concepts and practices for IT services management.

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3

Strange Bedfellows No More: Researching Business Process Outsourcing and Dynamic Innovation

Mary Lacity and Leslie P. Willcocks

Introduction

This chapter answers the question: how do clients and business process outsourcing (BPO) service providers work together to foster dynamic innovation? Dynamic innovation is a process by which clients incent providers to deliver many innovations each year that improve the client's performance in terms of operational efficiency, process effectiveness, and/or strategic impact.

The strong appetite for outsourcing has shown little sign of abating in recent years. Looking across a range of reports and studies, global information technology outsourcing (ITO) and BPO revenues exceeded US\$290 billion and US\$175 billion, respectively, in 2012 when we began this research. Offshore outsourcing represented more than US\$85 billion of these combined revenue figures. Since then, the global outsourcing market has grown to exceed combined revenues of US\$ 1.1

M. Lacity (✉)

University of Missouri, St. Louis, MO, USA

e-mail: Mary.Lacity@umsl.edu

L. P. Willcocks

London School of Economics and Political Science, London, UK

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trillion by 2018. It is very clear that, with its nearly 30-year history, outsourcing of IT and business services has become an almost routine part of management, representing for many major corporations and government agencies the greater percentage of their back office expenditures.¹

With this strong appetite, however, comes a shifting set of demands. The present generation of BPO clients expects more from BPO service providers than up-front cost savings and “green” service levels (Lacity and Willcocks 2012, 2015). They also expect longer-term results than one-time, big-bang “transformational” efforts (Linder 2004) that proved to be quite risky. However, historically, innovation and IT/BP outsourcing have been rare bedfellows. There is a great deal of research, including our own, to show that the key disappointments have been twofold: variable quality of relationships and all too little innovation experienced (Lacity et al. 2016). This has translated into good-to-strong success where limited objectives were pursued, but a patchy record where more transformative, multiple objectives have been attempted. This is the background for our own estimates for BPO that 20% are high-performance arrangements, 25% good, 40% “doing OK,” and 15% poor performing relationships (Lacity and Willcocks 2015).²

Not surprisingly, many client organizations have found this situation unsatisfactory. As the BPO market matured, clients were expecting BPO outcomes beyond cost savings and meeting service-level agreements (SLA). Next-generation BPO clients, we have been finding, want their service partners to transform their back offices, improve business performance, nimbly enable the client’s shifting business directions, and deliver business outcomes that were not initially expected. This means that “innovation” is very much on the agenda. But, up to 2018, relatively few BPO relationships are set up to achieve innovation, however defined. The relationships that are achieving these exceptional results we call high-performing BPO relationships. What practices distinguish high-performing BPO relationships from “typical” BPO relationships? Our research reveals that “dynamic innovation” is a theme that significantly distinguishes high-performing BPO relationships from typical performing relationships. The theme of dynamic innovation emerged from a number of research streams, including in-depth interviews with client-provider executive pairs in 24 organizations, an innovation survey of 202 outsourcing executives, and our prior BPO case study research.³

The research reported here finds that clients increasingly expect their service providers to innovate constantly. In high-performing BPO relationships, multiple innovation projects deliver substantial improvements to the client's performance. Such results are not automatic outcomes from outsourcing. Specifically, clients must motivate BPO providers with incentives and both parties must nurture a collaborative culture that inspires, funds, and injects cycles of innovations in the client organization. The entire process can be termed dynamic innovation as per the title of this book. Dynamic innovation is characterized by continuous, energetic, and sustained efforts that improve the client's operational efficiency, process effectiveness, and/or strategic performance. Dynamic innovation differs from static views on innovation that tend to evaluate single innovations based on size of impact, such as incremental (small change), radical (large change), or revolutionary (game changing) or by level of impact, such as IT operational level, business process level, or strategic level (Davenport et al. 2006; Mckeown 2008; Weeks and Feeny 2008). In one case study based on our current research, for example, the client and provider completed 53 continuous improvement projects that delivered bottom-line results including cost savings, faster product delivery times, and higher fulfillment rates. A static view of innovation would call each innovation incremental, but a dynamic view of innovation assesses how year-on-year programs of change accumulate to radically improve the client's performance.

In this chapter we explain how high-performing BPO relationships dynamically innovate. We look at sample innovations, the role of the leadership pair, incenting and contracting for innovation, and how innovations are delivered. We also assess the management implications of our findings. We begin by reviewing the outsourcing innovation literature.

Prior Outsourcing Research on Innovation

In the context of ITO and BPO, innovation has been studied as either an independent or dependent variable. As an independent variable, researchers have examined, to a limited extent, innovation as a motivation for or driver of outsourcing decisions. As a dependent variable, researchers have

examined innovation effects, that is, the consequences of outsourcing on innovation (Lacity et al. 2010, 2011).

Innovation as Outsourcing Driver

Lacity et al. (2010) reviewed 164 empirical ITO articles published between 1992 and 2010 in 50 journals and Lacity et al. (2011) reviewed 87 empirical BPO articles published between 1996 and 2011 in 67 journals. Academic research that investigated outsourcing drivers found that clients mostly outsource information technology and business process services for operational reasons—to reduce costs, improve process performance, access skills, increase scalability, and/or speed delivery. Among the list of 20 motives for ITO and BPO that academics have studied, strategic motives had only been examined a few times. Specifically, commercial exploitation was studied twice in relation to outsourcing decision (DiRomualdo and Gurbaxani 1998; Kishore et al. 2004), access to global markets was examined five times (e.g., Sobol and Apte 1995; Rao et al. 2006; Beverakis et al. 2009), and innovation was examined three times as a motive for outsourcing (e.g., Quinn 2000). In the ITO and BPO reviews, Lacity et al. (2010, 2011) concluded that researchers under-examined the more strategic drivers of outsourcing, including innovation.

Innovation Effects

In the BPO review, innovation effects were examined 20 times, but the context was always research and development (Lacity et al. 2011). These studies are quite good at looking at the innovation effects of outsourcing R&D. The dependent variable was operationalized most frequently using number of patents filed or granted and changes in sales or profitability (e.g., Ciravegna and Maielli 2011; Lucena 2011; Nieto and Rodríguez 2011). For example, Grimpe and Kaiser (2010) found a u-shaped relationship between degree of outsourcing R&D and innovation performance measured as share of sales from new products. They found that outsourcing improved innovation performance up to a point, then, too

much outsourcing actually hurt innovation performance. Beyond R&D, BPO and ITO researchers could help practice by studying further how clients can get innovation from outsourcing.

In addition to the reviews by Lacity et al. (2010, 2011) for ITO and BPO *services*, Stanko and Calantone (2011) reviewed all the empirical literature from the more mature research area of outsourcing the development of new physical *products*, such as new pharmaceuticals. They concluded: “There has been scant research into the performance implications of outsourcing innovation activities, although this literature is growing of late. Researchers simply have not yet answered many of the questions managers of innovation-seeking organizations face. Some of these outstanding questions include better understanding the impact of outsourcing on a variety of relevant metrics such as new product development speed, quality and profit.”

In 2013, we again searched the academic literature for empirical studies on ITO and BPO and innovation. Researchers were clearly beginning to address the gaps in knowledge. Authors have recently published insightful case studies on innovation and outsourcing in the private (e.g., Babin and Schuster 2012; Weeks and Thomason 2011) and public sectors (e.g., Moon et al. 2010). Surveys continued to track trends (e.g., Massini and Miozzo 2012). Researchers also were examining contractual and relational governance practices and collaborative processes that helped deliver innovation from ITO and BPO (e.g., Oshri et al. 2012; Whitley and Willcocks 2011). Academics were also spawning helpful debates (Datta and Bhattacharya 2012; Oshri 2012). Researchers were also studying niche areas, such as outsourcing and innovation in small firms (e.g., Hatonen 2010) and in certain countries besides India and China (Uriona-Maldonado et al. 2010). In a comprehensive review of 174 newly published outsourcing articles between 2010 and 2014, Lacity et al. (2016) found innovation effects being studied 33 times as a dependent variable. Clients experienced increased innovation when certain independent variables were present, including strong relational governance, strong contractual governance, and strong client firm capabilities. To further contribute to the knowledge on innovation in BPO services, and as to what factors positively support innovations and their impacts, we undertook a research project, which is described next.

Research Method

Our initial research question was “Which attitudes, behaviors, processes and practices distinguish BPO relationships with great performance from BPO relationships with ‘poor’ or ‘good’ performance?” Interviews were deemed an appropriate method to answer this question for several reasons. First, we sought to understand the participant’s own perspectives (Kvale 1996)—would clients and providers have similar or different perceptions? (Klein and Myers 1999). Second, we did not want to limit the study to predefined constructs or predefined categories within constructs (Glaser and Strauss 1999). Although we had a detailed interview guide (explained below), we wanted a method that would allow additional themes or constructs to emerge from the interviews (and indeed they did). Additionally, interviews are also appropriate when seeking participation from busy or high-status respondents (Mahoney 1997), when seeking answers to questions in which the subject matter is sensitive (Mahoney 1997), when researchers are more concerned with the quality, not quantity of responses (Fontana and Frey 1994), and when seeking answers to why or how questions about contemporary events over which the researcher has little or no control (Fontana and Frey 1994; Yin 2003).

Interview Guide

We designed two interview guides, one for the client participants and one for the provider participants. The interview guides were designed to capture current research on the attitudes, behaviors, processes, and practices that affect outsourcing outcomes. For client participants, the guides have open-ended questions on outsourcing strategy, provider selection, contractual governance, transition of work, ongoing delivery, relational governance, outsourcing outcomes, client and provider capabilities, client and provider behaviors, and overall lessons learned. The provider guide included the same set of questions for contractual governance, transition of work, ongoing delivery, relational governance, outsourcing outcomes, client and provider capabilities, client and provider behaviors, and overall lessons learned. Research sponsors reviewed the guides for clarity and understandability.

Interviewees

Through research sponsored by the Outsourcing Unit at the London School of Economics and Political Science in association with Accenture, Orbys, and Business Process Enabling South Africa (BPeSA), we conducted 48 in-depth interviews between October 2011 and December 2012 with BPO client-provider executive pairs (interviewed separately) in 24 client companies. The sample was drawn from across sectors and countries with the guidance and facilitation of the research sponsors. The BPO relationships ranged in size from small (equal to 5 Full Time Equivalents (FTE)) to very large (equal to 550 FTEs). The BPO relationships covered financial and accounting services ($n = 8$ relationships), human resource management ($n = 3$ relationships), procurement ($n = 3$ relationships), supply chain services ($n = 2$ relationships), call centers ($n = 4$ relationships), and legal services ($n = 4$ relationships). Participants were interviewed by phone because they were globally dispersed; participants were located in Australia, Canada, India, Ireland, the Philippines, Spain, South Africa, Switzerland, Czech Republic, United Kingdom, and the United States. Interviews last between 45 minutes and 75 minutes. All interviews were tape recorded and transcribed. All participants were guaranteed anonymity to promote open and frank discussions.

Innovation Survey

The intention of the survey was to capture the similarities and differences between client and provider perceptions about the definition of outsourcing, the most effective innovation incentives, sources and funding for innovations, and samples of innovations delivered in outsourcing relationships. The survey was designed by the lead author and reviewed by members of the International Association of Outsourcing Professionals (IAOP). The survey was administered at the IAOP's 2012 Outsourcing World Summit. At the World Summit, clients gathered in one ballroom (identity was verified at the entrance) and providers and advisors gathered in another ballroom for networking sessions. Midway through each session, participants were asked to fill in our paper survey. A total of 202

delegates turned in completed surveys—85 clients, 90 providers, and 27 outsourcing advisors.⁴

Data Analysis: Theme of Dynamic Innovation

The transcribed interviews were over 500 pages long. First, we extracted and wrote papers on eight best practices tied to performance, which were based on the initial set of constructs designed in the guides. As we were writing these first papers, we became aware of the strong theme of innovation emerging from the interviews. We read through the transcripts multiple times to focus solely on innovation. We began to categorize sub-themes, including the most effective innovation incentives, the least effective innovation incentives, the processes used to deliver innovations in client organizations, and the effects of innovation on client performance. We also compared and contrasted the emerging innovation themes with the survey responses. We used both data sources to create the Dynamic Innovation Framework presented in this chapter. Participants quoted here were asked to review the working paper version for their comments, feedback, and permission to cite anonymous quotes. All participants gave positive feedback on the framework (although many requested minor tweaks to their direct quotes).

Before explaining the Dynamic Innovation Framework in detail, we first set the context by explaining how participants defined innovation and by giving some illustrative examples of innovations delivered in BPO relationships.

Practitioners and Innovation: Definitions and Examples

Academics often define innovation as an idea, practice, or object that is *perceived* as new by an individual or organization (Rogers 2006). Wright (2012) argues innovation should be defined as an if-then argument. But what do practitioners mean by the term “innovation” in the context of BPO relationships? In earlier research, we found clients defining innova-

tion as “doing things differently for the better,” and “realizing there is a different and better way of doing something, and combining this with the ability to deliver.”⁵ Based on our recent in-depth interviews with BPO client-provider executive pairs, clients and providers define innovation by their own test: an innovation is any activity that improves the client’s performance. Our survey of 202 outsourcing professionals found the same result. The top-ranked definition of innovation by clients, providers, and advisors was “something that improves the customer’s services or costs, regardless of its novelty.”

What do innovation “activities” comprise? Throughout our interviews and survey, we asked practitioners to provide specific examples of innovations and how those innovations improved client performance. Although dynamic innovation is a sustained process over time, it is still interesting to learn about specific innovations, even in isolation from a more integrative innovation agenda.

In the innovation survey, we asked respondents to briefly describe a successfully implemented innovation. We coded the 85 responses into 8 categories (see Fig. 3.1). The most common type of innovation was a new tool or technology (35%), such as a new customer-tracking tool, asset-management tool, e-invoicing tool, optical character recognition tool,

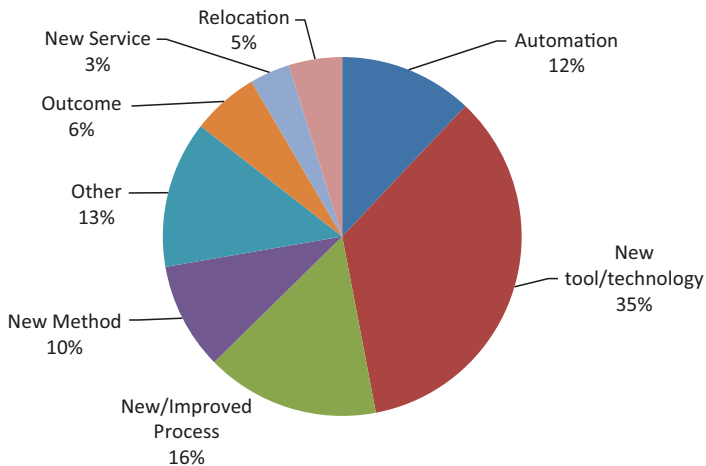


Fig. 3.1 Categories of innovations ($n = 85$)

and migration to the cloud. New or improved processes (16%) were the second most common types of innovation. Respondents described new or improved processes to evaluate salesforce effectiveness, to assess asset value, and to train new workers, for example. Thirteen percent of the innovations were unique, so we categorized these as “other.” Examples included establishing a center of excellence and restructuring a back office. Automation was the fourth largest category, describing 12% of the innovations.

Respondents also pointed to the significant consequences of innovations to the client’s improved performance. One respondent described a report-delivery innovation that reduced turnaround time from 20 hours to 20 minutes. Another respondent described a workflow automation system that reduced the client’s costs by 50%. Another respondent wrote about a paper clearinghouse solution the provider developed to allow electronic claims that previously could only be submitted via paper submission. The automation reduced costs and improved timeliness of claims submissions.

From the interviews, we collected multiple examples of innovations from each BPO relationship. Unlike the survey, it was difficult to categorize the case study innovations as strictly a technology, process, method, or automated innovation. In reality, most innovations are more complex and include a mix of technologies, processes, *and* methods as demonstrated in the next examples.

Moving to the Cloud

On one procurement deal for an electronic design automation client, the provider moved the client’s procurement platform to the cloud. Cloud delivery lowered the client’s costs and sped their access to upgrades. The provider explained: “One of the biggest innovations recently is moving the client to this on-demand platform. And as a result, they now see regular innovation because, given that it’s in the cloud, updates are made to that software and new configurations and capabilities are implemented through that cloud configuration. The client would have had to pay a consultant to come in and hardwire their CD version. So that’s certainly

helping them innovate from a technology standpoint.” While one might conclude that this is strictly a *technical* innovation, in reality the *method* for upgrades changed and the *service* changed because the client had to sacrifice customization to realize benefits from the one-to-many cloud-computing platform.

Electronic Invoicing

On another BPO account for Financial and Accounting Outsourcing (FAO) services at a high tech company, the provider had already reached 100% on their service levels for processing invoices and had reduced costs through labor arbitrage and process standardization. The provider account delivery manager began to think: did the client really care that the provider meets the monthly SLA to post all the invoices within three days? No, the client cares about further reducing the costs per invoice. The provider identified electronic invoicing as the best way to reduce costs: “We proposed to implement electronic invoicing and OCR⁶ as a project. So that’s an innovation that we’ve brought forward. That particular project is all about focusing on the business outcome that you want to achieve. And then to achieve that outcome, it’s specific innovations around electronic invoicing and OCR. So focusing on the outcome first and then saying, how can we drive that?” Electronic invoicing will reduce the provider’s head count, and thus their revenue, but the provider is incented to do so through gainsharing. This innovation involves new technology, new processes, and new methods.

Better Forecasting

On one BPO account for an aircraft engine manufacturer, the provider implemented innovations that delivered bottom-line results. The provider deployed a better forecasting tool for supplies and proposed a new key process indicator—supplier promise delivery date fulfillment. The innovations used new tools, techniques, and methods. These innovations helped the client improve the customer order fill rates for new parts from 60% to 85% and the turnaround time for delivering parts to grounded aircraft from 21 hours to 17 hours.

Faster Product Delivery

One hi-tech manufacturer outsourced the posting of purchase orders to a BPO provider. The provider's tasks included taking and booking customer orders that were then handed over to the client's accountants for processing. It was taking the manufacturer, on average, 20 days to deliver product to their customers. Their competitors delivered within 10 days, a significant competitive advantage. The provider analyzed the end-to-end process and determined what each partner needed to improve to reduce delivery time. The provider said: "I'm only contractually obligated to create the order when I receive it. But we looked at the end-to-end order cycle time, and we crunched that data down. We drove that through. The client's customer satisfaction and the satisfaction from his sales guys were great because revenues increased because the sales guys could walk around and say, 'Buy from [names competitor] but it takes ten days and we're at eight.'" This innovation used data analytics and new processes.

How do these innovations come about? The next sections look at the findings on three sets of practices that emerged as critical—leadership pairs, incenting and contracting for innovation, and how innovations were delivered.

Dynamic Innovation: The Role of the Leadership Pair

An overview of the key factors supporting dynamic innovation in outsourcing relationships is given in Fig. 3.2.

Assigning the right leadership pair emerged as the key catalyst for jump-starting the dynamic innovation process. In high-performing BPO relationships, we found a pair of extraordinary people leading the innovation agenda—one leader from the client organization and a counterpart from the provider organization. The leaders are both strong as individuals; both leaders are experienced, capable, and have high levels of credibility, clout, and power within their own organizations. Effective

Effective Leadership Pair

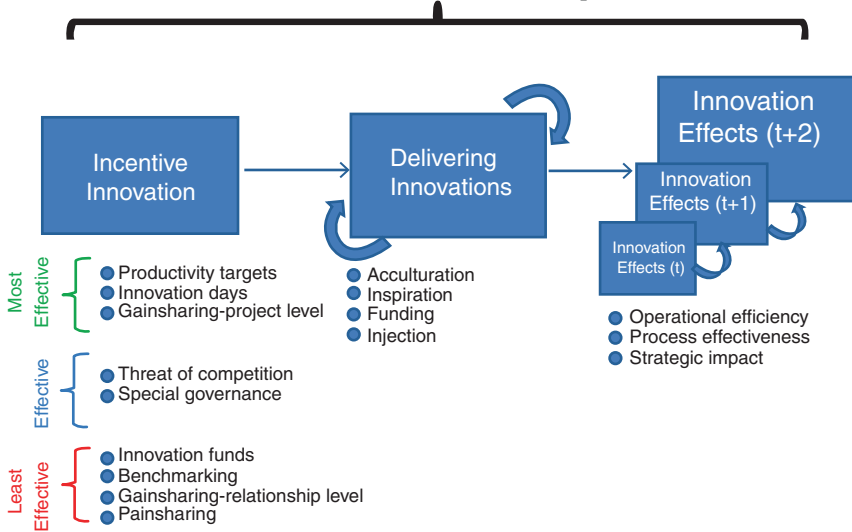


Fig. 3.2 The dynamic innovation process (Source: authors)

leadership pairs enjoy working together, which some research participants described as “chemistry.” Effective leadership pairs displayed the following behaviors and held the following attitudes:

1. *Focus on the future:* The leadership pair focused on where they wanted the BPO relationship to go, not where the relationship was in the past or present.
2. *Spirit of togetherness:* The leadership pair presented a united front to stakeholders in their respective organizations.
3. *Transparency:* The leadership pair was open and honest about all operational issues.
4. *Problem solving:* The leadership pair sought to diagnose and fix problems; they did not seek to assign blame.
5. *Outcomes first:* The leadership pair always did what was best for the client organization and then settled a commercially equitable agreement.

6. *Action-oriented*: The leadership pair was not afraid to expend their powers; leaders acted swiftly to remove or workaround obstructions to innovation stemming from people, processes, or contracts.
7. *Trust*: Perhaps, as a consequence of the former behaviors, the leadership pair felt secure and confident in the other person's good will, intentions, and competency.

In several cases, we found client-provider pairs who were both experienced leaders, but the combination simply did not work. Changing one or even both leaders can improve performance. (Two other researchers, Jason Davis and Kathleen Eisenhardt (2011), also found that rotating leadership produced more innovation in inter-organizational relationships.) For example, at one now high-performing BPO relationship based in Europe, the client leader requested a different provider account manager because he could not collaborate effectively with the initial person assigned. The provider granted his request. The client leader contrasted the two provider leads:

The provider appointed a delivery account manager and through the initial sort of bloody period, the relationship did not work. I don't know whether it was chemistry or what. He was a more senior guy with the attitude, 'Well, I've done it, I've got the t-shirt, I know what I'm doing, I don't know why you're panicking, leave me alone to get on with it.' He may have been a very good person but I couldn't work with him. The provider bravely and ultimately was correct to say, 'okay, if that's the case, we'll pull him out.' They put somebody else in who was actually more junior but was somebody with whom we could work.

Of course, we found that many outsourcing relationships could not jump-start their innovation because they did not have the right leadership pair. We found that just having one right leader makes a positive difference. The positive difference is stronger if that leader is on the client side rather than the provider side. With no right leaders, the practices that we enumerate in the next section are much less efficacious in their impact on innovation outcomes. Nevertheless, when applied, we found that they do contribute to positive differences, and do help to evolve the organizations toward a different, more high-performing relationship.

Incenting and Contracting for Innovation

As stated above, innovation is defined by its consequences on the *client's* performance. Clearly, providers need incentives to focus on innovations that improve the client's performance (e.g., client efficiency, effectiveness, strategic impact) rather than focus on innovations that solely benefit the provider (e.g., increased provider revenue or margin). Incentives can positively reward or negatively punish behavior. Gainsharing is a positive incentive that rewards good behavior with financial compensation. Painsharing is a disincentive that punishes bad behavior with a financial penalty. Both clients and providers in our study identified mandatory productivity targets, innovation days, and gainsharing at the project level as the most effective incentives for innovation. The threat of competition (according to providers) and special governance for innovation (according to clients) were reported to incent innovation effectively. The least effective incentives were innovation funds, benchmarking, and gainsharing/painsharing at the relationship level. Let us look at these in more detail.

Yearly Productivity Improvements

Many BPO relationships, even in 2018, are still priced based on resource inputs, such as pricing per FTE. Clients like the simplicity and predictability of FTE pricing, but they also realize that input-based pricing discourages the provider from implementing innovations that would reduce the number of FTEs because the provider's revenues would decrease. To overcome this disincentive, many BPO clients necessitate innovation by mandating productivity improvement requirements in the contract that require the BPO provider to improve the client's productivity, most typically by 4–5% per year. Both clients and providers reported positive results from mandatory productivity targets.

For example, the provider for one consumer goods client implemented a number of innovations, including new dashboards for better reporting and transparency and a new employee referral recruitment program to attract high-skilled talent like engineers. Pertaining to the new dashboards, which are powered by the provider's analytics, the client said:

I'd say one of the recent innovations that we began to push for and the provider responded to beautifully was more fact-based analysis, the ability to look at analytics. For example, if we had a measure of client satisfaction, and if the measure was off the key service indicator, they don't just report the score, we could dive down and see what part of the business it was coming from. We could analyze hiring patterns. So, bringing in a lot more analytical rigor. It was not part of the original relationship. They really brought that to the table. Today, we are finding that, in the spirit of partnership, once we identify an area that is having difficulty, we can get very creative together in terms of how to go and attack that particular problem.

The provider for this client confirmed that the innovation was prompted by the productivity requirement:

The dashboard is an innovation that we have implemented in the last year at no additional cost to the client. It is a part of our ongoing continuous improvement and stepping up our game in the BPO space.

Dedicated Time to Drive the Innovation Agenda

Innovation objectives can quickly slide down the list of priorities if everyone's attention is focused on operations. In high-performing BPO relationships, the partners allocate dedicated time each year to drive the innovation agenda. These clauses are called a number of things, including innovation days, invest days, or innovation forums. They work slightly differently on each account, but the essential commonality is collaboratively defining the innovation agenda for the coming year. On some accounts, invest days are essentially free consulting days by the provider's top-gun consultants. In these deals, the only stipulation is that the client and provider have to agree each year how the days will be used for possible mutual benefit. Innovation forums are typically scheduled quarterly. Clients use the forums to learn more about the provider's latest tools, technologies, and capabilities. One provider explains how she works with her consumer products client during the quarterly innovation forum:

So we have in every major service line what is called an innovation forum at least once a quarter. We bring what we see in the marketplace and the client brings what they are seeing in their marketplace. So we bring, for example, what we see in consumer goods and services space that relates to talent management. That's an example. The client will bring what their business challenges are and what their internal HR strategy is. We'll look at this, combine it together, and figure what our continuous improvement agenda needs to be collectively over the next quarter.

Gainsharing at the Project Level

In the innovation survey, we asked respondents about the best options for designing innovation into outsourcing contracts. Respondents could tick multiple options from a choice of innovation funds, invest days, special governance for innovation, or gainsharing on innovation benefits. By far, across all three communities, gainsharing was identified as the best way to design innovation into the deal. Specifically, 79% of customers, 77% of providers, and 78% of advisors indicated that gainsharing on innovation benefits was the best way to contract for innovation. Among all the ways to incent innovation, gainsharing packs the most punch because it promises to increase the provider's revenue as well as the client's performance. Despite the fact that gainsharing was the top-ranked response in the innovation survey, clients indicated in a follow-up question that only 40% of innovations delivered used gainsharing. Our case study research also found fewer than half the clients contracting for gainsharing clauses, or even when gainsharing was included in the contract, only half of these clients availed the gainsharing option. On the other hand, some clients reported that gainsharing was prompting powerful innovations on their accounts. These mixed results are best explained by looking at the unit of analysis. Gainsharing was most effective at the project level and least effective at the relationship level.

At the project level, the client and provider negotiate the gainshare for one project at a time. The levels of uncertainty are much lower at the project level and the partners can better estimate savings to be shared. One of the best examples of gainsharing comes from the Microsoft case study.⁷ Microsoft had a global BPO contract for financial and accounting

services with Accenture. The partners avoided the battles gainsharing usually triggers by agreeing to the gainshare in advance. Specifically, the partners agreed up-front how much Microsoft's bill would be reduced. Accenture was guaranteed a share of that savings, and if Accenture could outperform, they pocketed the difference. If Accenture underperformed, it absorbed the loss. For example, if Accenture was charging US\$100 for service performed by person X and earning \$10 in profit, a transformation project that would eliminate person X would normally mean a loss of \$10 profit for Accenture. Microsoft incented Accenture by agreeing to pay, say, US\$20 after the transformation. Under this hypothetical scenario, Accenture doubled their profit and Microsoft was guaranteed a reduced bill by US\$80. If the transformation project exceeded or fell short of expected gains, Accenture pocketed the additional gains or absorbed the losses. This mechanism was designed to properly incent Accenture. Microsoft's Senior Director of Financial Operations explained:

If I run a project together with Accenture that takes that person away, then Accenture loses the revenue of 100 and a profit of 10. That would be stupid of Accenture to do. So what we then did was looked at those projects to make sure we have a split of the gainshare to make it attractive for both of us to do this.

The overall affect is the creation of strong incentives for Accenture:

My client recognizes that I need to meet my financial commitments as the service provider. That may sound strange but there is a realization that, fundamentally, I have to be incentivized to do some of the things I need to do. The key message is a spirit of partnership that I don't think exists in the other engagements that I've come across.—Outsourcing Account Delivery Manager, Accenture

The Threat of Competition

In the absence of contractual incentives, several providers in our study still felt highly pressured to deliver innovations to clients because of the ubiquitous threat of competition. For example, one provider said:

There is nothing in our contract that says we have to innovate at all. In my mind, if we don't innovate, at the time of contract renewal, the client will take this business somewhere else if we can't prove that we are delivering value beyond transactions.

On another BPO account, the provider sees innovations as a way to differentiate their services in a highly competitive market:

I think it is part of the valued added that we bring. We are constantly challenging ourselves to step up our game to improve all the time and adding value to the client's business. In doing so, we are also creating some offerings within our BPO space that are very different than conventional BPO.

Special Governance for Innovation

Large BPO relationships are governed typically by operating committees focused on day-to-day operations, management committees focused on monthly invoices and service-level reports, and steering committees comprised of the senior most executives, but who only meet annually (unless there is an escalated dispute). Sixty percent of the clients responding to our innovation survey indicated that innovation needs special governance outside the constraints of these existing committees. However, only 42% of providers agreed. From our interviews, we found that the people selected to lead are more important than the structures erected to govern.

Innovation Fund

An innovation fund is a separate account set aside to fund future innovation projects. In our survey, innovation funds were recommended by 38% of clients, 30% of providers, and 33% of advisors. These lower percentages may be due to the fact that such funds are often too small to excite and motivate parties (Weeks 2004).

Benchmarking

Some respondents in the innovation survey suggested that benchmarks incent innovation. Third-party benchmarking of best-in-breed prices and service levels are intended to incent providers to increase performance in step with competitors. While many interviewees said their companies did external benchmarking to gather market data, none supported the idea that benchmarking is an effective mechanism to incent innovation. In reality, we learned, external benchmarks often triggered more disputes than innovations. For example, when an external benchmark found that the provider's unit price was well above best-in-breed price, the client wanted the price reduced. The provider claimed the comparison was unfair because the provider was maintaining the client's old technology. Newer technology—the provider argued—would be more efficient and thus have a lower price.

Gainsharing/Painsharing at the Relationship Level

Gainsharing at the relationship level establishes targets for the overall performance of the relationship, usually assessed yearly. Clients and providers reported many problems with this gainsharing mechanism. Some clients think gainshare targets are too low. One energy client provided an example. His contract provided a gainshare if the provider exceeded targets and a painshare if they missed targets. Every year, the provider exceeded the targets and earned a gain. On the one hand, this energy client was delighted with the provider's performance. On the other hand, he suspected the initial targets were too low:

The standards were a bit one-sided and not difficult to meet. It ensured that each year there was a good bit of gain, and the gain went to the provider. We lose the notion of pain/gain. To me, you should really challenge yourself to be accurate on your projections of cost as humanly possible. Your metrics should be at a high level and your performance should be at a high level. You should be truly delivering something fairly extraordinary to benefit from gainsharing. That wasn't necessarily the case.

Some clients and providers could not agree on a baseline performance measure, resulting in the parties abandoning the notion of gainsharing even though it was designed into the deal. For example, one telecommunications client and BPO provider hoped to use gainsharing to prompt innovations in new hire training, but they had no good way to measure the baseline. The provider explains:

In one of our contracts, we actually agreed to put an incentive based mechanism in place, and we contracted for that. However, once we got into the contract we found that the baseline was not really measurable so that was never implemented. But certainly, the intent was there. So we could never agree to what baseline was so we could never demonstrate that we moved away from that baseline. It was quite disappointing for everybody.

Another big challenge was interpreting the gainsharing clause. In one BPO relationship, the client and provider escalated the fight over gainshare allocations to a formal dispute. The context was a procurement deal in which the provider was responsible for the procurement software and procurement services. The contract stipulated that the provider would get a percentage of any discount above a vendor's list price for any new products the provider bought for the client. The provider renewed a hardware vendor contract on behalf of the client that was 55% lower than the hardware vendor's list price. The provider calculated a multi-million dollar gainshare, claiming the contract was for new products as evidenced by new material codes. The client refused to pay. The client claimed the previous contract with the hardware vendor already had a 50% discount and the client was purchasing the same material, it was just that the vendor's newer models used different codes. The client allocated about 150 hours of in-house legal counsel to the dispute and brought the advisory firm that helped negotiate the original contract back into the deliberations. The client applied so much energy, time, and resources to the dispute, that in the end, the client reported that "the provider gave up." Although the partners resolved the conflict, the partnership was weakened according to the client. "It went all the way to dispute process and it left an incredibly bitter taste with our executive team," said the client. Eventually the provider's procurement services division was bought by another pro-

vider. The client was very pleased with the new services provider. “The [new provider] is incredibly customer-focused first, provider-focused second. It’s an incredible reversal compared to the previous provider,” said the client.

Delivering Innovation

Partners may negotiate innovation clauses into the contract, but innovation typically does not occur at first. In fact, the most typical pattern we found—even in ultimately high-performing relationships—was that client performance got worse during the transition phase, then performance stabilized, then performance significantly improved as the effects of the provider’s first transformation levers—labor arbitrage, centralization, and standardization—took effect. The challenge—and what differentiated high-performing relationships from normal-performing relationships—was sustaining the innovation agenda over time. From the survey and interviews, we sought to better understand how cultures nurture innovation, which parties come up with the ideas for innovation, how are innovations funded, and how are they delivered.

While partners may incent innovation by including productivity targets, allocating innovation days, and agreeing to gainshare on innovation projects, innovation still will not happen unless both clients and providers implement a process which we have described as AIFI—**A**cculturating (across parties at all levels), **I**nspiring (joint, provider- and client-generated ideas), **F**unding (in general, proposers fund innovations), and **I**njecting (strong change management to transition individuals, teams, and organizational units from the present to future state).

Acculturation

Academic research on BPO relationships has generally found that cultural distance, defined as the extent to which the members of two distinct groups (such as client and provider organizations) differ on one or more cultural dimensions, negatively affected outsourcing outcomes (Lacity

et al. 2011). This was particularly relevant in the cases of offshore outsourcing. In general, research found that clients find it easier to work with providers that share a similar culture. However, cultural distance can be overcome with a capability called Cultural Distance Management, the ability of client and provider organizations to understand, to accept, and to adapt to cultural differences. Acculturation explains the process by which two or more cultures merge to form a cohesive culture. Merged cultures often end up borrowing aspects of both the client's and provider's cultures. In several BPO relationships we studied, the partners went so far as to brand the provider's delivery centers with the client's company colors, logos, and office layouts. For their part, clients recognized the special holidays and festivals in the provider's culture. In the context of dynamic innovation, a culture that encourages and welcomes innovation ideas is crucial.

In high-performing BPO relationships, client executives actively encouraged all levels in the provider organization to challenge the status quo, to question assumptions, in short, to find innovations that would improve the client's performance. One high-performing BPO relationship between an energy company and a global provider serves as an example. The client and the remotely located provider employees had monthly meetings to encourage and financially reward continuous improvement and innovation. This client leader had also transformed the behavior of the remotely located provider employees by encouraging them to challenge the client more:

We absolutely encourage—and I've done this face-to-face sitting there in India—to challenge us. We know we are complex, we know that we create some of our own problems; we are our own worst enemies in some areas. We absolutely want you to point some of those things out and point out some ideas. Not only is it not disrespectful but I will find it disrespectful from now on if you tell me nothing and I have to figure it out myself. We have tried to make that out positive. It's generated lots of good ideas that we've been able to put into practice.

But BPO relationships do not just operate in two organizations (the client's and provider's) but in four or more organizations, each with its

own culture: (1) the client's centralized business services organization that "owns" the BPO relationship, (2) the client's decentralized business units that receive BPO services, (3) the provider's centralized organization that sells BPO services and allocates resources to accounts, and (4) the provider's globally dispersed service delivery centers which may operate in several countries like India, China, the Philippines, Brazil, and so on. Each organization typically wants different things from the BPO relationship. The client's centralized business services organization often wants tight cost controls, high productivity, and process standardization. The client's decentralized user communities are bothered by controls, procedures, and standards; instead they want responsive, flexible, and custom services. The provider's centralized culture will likely value aggressive growth. The provider's globally dispersed delivery teams want to please both their supervisors and customers, which can leave them caught between conflicting cultures. The BPO leadership pair is tasked with acculturation, the process by which two or more cultures merge to form a cohesive culture. In the context of dynamic innovation, the resulting culture must be transparent so that even remotely located provider employees understand how their work contributes to the client's performance. One provider explains:

When someone is sitting in a place miles away, it is really important for that person to understand the impact of what he or she is doing to the client organization. As soon as you are able, get that culture in offshore delivery locations, or even onshore delivery locations, so they can relate to what kind of impact they are bringing to the client. I think it makes a huge difference in performance.

The culture must also encourage, welcome, and reward innovation ideas.

Inspiration: Generating Innovation Ideas

One question we sought to answer is, "which stakeholder is the primary source for innovation ideas?" Anecdotally, clients seemed to claim clients generated most of the innovation ideas and providers seemed to claim

providers generated most of the innovation ideas. Consider what this pharmaceutical client said:

Although the SLAs are green, we feel the providers haven't brought enough innovation to the table for us. I don't think any of the continuous improvement ideas have necessarily been driven by the providers, most of them have been client driven.

Another client from an aircraft engine manufacturer allocated the credit for innovation ideas as follows:

I'd say it's probably 70 percent from our side and 20 percent from the provider side and remainder 10 percent is jointly.

To get a more representative answer, we asked respondents of the innovation survey to identify which stakeholders were the primary sources for innovation ideas (see Fig. 3.3).

Overall, 189 client, provider, and advisor respondents to this question agreed that the majority of innovation ideas were either jointly created

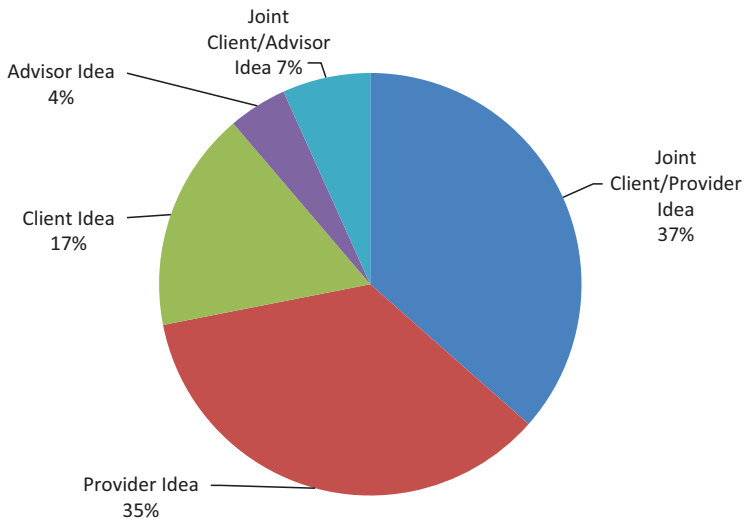


Fig. 3.3 The primary source of innovation ideas ($n = 189$ respondents)

between clients and providers (37%) or providers created innovation ideas on their own (35%). There were some differences in the magnitude of percentages among the three communities. According to 65 outsourcing clients who answered the question, 32% said innovation ideas were jointly created with providers, 32% said providers were the primary source of innovation ideas, 24% identified themselves as the primary source, and 11% credited advisors for innovation ideas. According to 86 providers who answered the question, 43% said innovations ideas were jointly created with clients, 40% identified themselves as the primary source, 14% identified clients as the primary source, and 3% credited advisors for innovation ideas. Not surprisingly, 37% of the advisors credited themselves as the primary source of innovation ideas.

Jointly Developed Innovation Ideas

As the survey indicates, many innovations are collaboratively identified, most frequently during the execution of innovation days, invest days, or innovation forums. For example, at one bank the partners created a jointly developed innovation plan every year. The provider explained:

Between ourselves and the client, we ask: what additional value in innovation can we bring in any given year? We have our basic operational plan for any given year. What sits on top of that is that is an innovation plan that we try to focus on at least four to six key value innovations in any given year.

The provider delivered training more efficiently and effectively to the client by moving 40% of the training courses online, including mobile learning capabilities through smartphones. The innovations were not separately funded but rather part of the overall base contract.

Provider-Driven Innovation Ideas

In the innovation survey, providers were credited as the primary source of innovation by 35% of respondents. Providers are well poised to propose

innovations—if incited to do so—because of their breadth and depth of expertise. Concerning the breadth of BPO expertise, providers are able to generate innovation ideas because BPO is core to the provider's business but non-core to their client's business. In contrast to clients, providers focus intensely on BPO, execute services frequently, cross-fertilize ideas across a global client network, and spot BPO trends quickly. Providers also have deep insight into the client's data and processes, which afford them a vantage for identifying innovations that can really impact the client's business value.

The evidence for the provider-driven innovation is most convincing when presented by BPO clients. For example, one electronic design automation client was quite pleased with his procurement provider's ability to innovate based on their expertise. Of the provider account delivery manager, he said:

He's constantly thinking about procurement savings, category expertise, supply chain management and so on. That's what you get by having someone focus on one area specifically.

This client also said that providers can attract and retain top talent better than a client's in-house function. He praised the quality of the provider's experts and drew this analogy:

My Berkeley education, I still remember when Glenn Seaborg walked into my CALC -1A class with all my 1,000 friends and gave a lecture on his Nobel Prize winning research. It was one of those things where you go, 'Wow! That's why I'm at Cal.' Similarly, there are moments in procurement that you can't put it into a contract but someone from the provider walks into a situation and you listen to them and you watch the stakeholder guys say, 'This guy knows what he's talking about.' Or, 'she knows what she is talking about.' It is those kinds of situations that really drive premier organizations. Every college couldn't have Glenn Seaborg. So, it's that resource-heavy, resource-laden, value-add that you get from an outsourcing relationship. I think that's an innovation that can't be underestimated. And, I think the provider is really adding to that, just from the people that I've met so far.

Funding Innovation

In the innovation survey, respondents were asked to indicate who funded the innovation project. In alignment with the primary source for innovation ideas, 45% of innovations were jointly funded, 34% were provider funded, and 20% were client funded. We mapped funding responses to the source of the idea responses (see Table 3.1) and found that in general, the stakeholder(s) who propose innovations help fund innovations. People may be only incented to pitch innovation ideas if they themselves would benefit and thus would be willing to finance the innovation project in whole or in part.

Injection: Change Management

Clients from high-performing BPO relationships understood that they cannot be passive recipients of innovations, but clients must aggressively manage the changes the innovations bring to their organizations. In other words—provider incentives lay the foundation for dynamic innovation, but the execution of dynamic innovation requires strong change management to transition individuals, teams, and organizational units from the current state to the desired future state. Change management is so important, it was identified as one of the eight best practices for delivering high performance in BPO relationships.⁸

Innovations have to be accepted by two groups of clients—the client leads responsible for the BPO relationship and the cadre of globally dispersed end-users. Sometime it's the client leads that killed an innovation

Table 3.1 Source of innovation ideas and funding

	Provider's idea	Client's idea	Joint provider/ client idea	Total
Provider- funded	35	4	16	55 (36%)
Client-funded	13	12	5	30 (20%)
Jointly funded	14	14	39	67 (44%)
Total	62 (41%)	30 (20%)	60 (39%)	152 (100%)

idea because they lacked the energy or resources to lead the change management effort an innovation idea requires. For example, one hi-tech client relayed this story:

For some of the provider's ideas they've made aware to us and we've gone, 'yeah, thanks for telling us but actually we don't care to do it.' They say, 'We can make you more efficient in this area if you do so and so and so and so.' And we said, 'yeah, but we're not prepared to do so and so and so and so, so we'll have to stay inefficient.'

Similarly, another telecommunications client leader has not been very proactive on innovation. According to the provider on this account:

Over the years, we run an annual innovation day where we bring people in from overseas and we showcase the latest products and things like that that we have. Over the last five years, the take-up of the innovation has been a little bit underwhelming.

The risk, of course, is that the provider will stop investing their time and resources in identifying innovations if clients continually reject ideas. If the client leaders are excited about an innovation and if those leaders are respected within their own organizations, then they are usually successful in their change management efforts. One hi-tech provider on a high-performing BPO relationship said of his client lead:

He knows the business very well. He knows how relationships work and he's very politically savvy. So I think it's very important your relationship person is respected within the client organization, has weight with them and is a very strong political operator.

This client lead said effective change management needs to be driven from the Board, but that a powerful leader had to be in charge of operations:

You need quite senior and experienced managers driving it who could make rapid decisions when needed and who could bulldoze obstacles out of the way when required. So I think it really does need board level, that's clear, but you need somebody with a bit of clout actually actively involved in running the thing to make it happen.

Management Implications

High-performing BPO relationships are good at sustaining innovation, but many other BPO relationships still need to work on incenting, contracting for and delivering dynamic innovation. Here are some management guidelines for action, based on our research.

It is Never Too Late to Innovate

For example, we found several top performers—for example, Microsoft—introducing gainsharing mechanisms after the BPO relationships stabilized. One aircraft engine manufacturer client on the road to high performance, just recently adding gainsharing to incent innovation beyond the productivity improvement requirement, said:

The provider is bound to demonstrate productivity gains year over year under the contract terms. But there is no incentive for the provider to go beyond that. So what we did was incent through gainsharing model anything that went beyond the required percent of productivity gained. It's not only the provider, we made it a joint productivity gain initiative so there is also reward and recognition for our own people when we go beyond the threshold.

On another account, the contractual clauses stayed dormant for several years until a new client executive took over the account. Before his arrival, the client never used the hundred plus days devoted to innovation in the contract. Under the new leadership, the partners used 50% of the invest days his first year in charge and 100% of the invest days the second year. The client reported positive benefits:

We went from using zero days in 2009 to using 100 percent of them in 2011. And that's resulted in a significant surge forward in understanding what the provider can do and led us to transition to some stuff at the beginning of 2011 that we hadn't even anticipated and now we're going live at end of 2011.

Both parties benefited because the provider increased the scope of work and the client benefited from the labor arbitrage of moving more work offshore.

Innovations Escalate Along a Novelty Curve

We have already discussed that dynamic innovation entails continuous, energetic, and sustained efforts that improve the client's performance over time. We also found that on many accounts, the novelty of individual innovation increases over time. At the beginning of a BPO relationship, the more experienced providers frequently brought best-in-breed innovations in technology, tools, processes, and methods to their less experienced clients. But as high-performing BPO relationships matured, the client had already absorbed the best-in-class innovations available from the provider. The next round of innovations, therefore, required more novelty. The provider for an electronic design automation client explained:

Early on, what we brought to the client was, 'Well, here's best-in-class, here's where you are, let's close that gap.' That's really what drove a lot of the innovation. I think we've exhausted a lot of those opportunities. Now, given that they've reached best-in-class, for them to be innovative, they've got to do something that's maybe a little bit out there. And so we're in the middle of working on some exciting things there.

As with anything more novel, the partners have to address risk-sharing and intellectual property ownership.

Analytics Will Increasingly Play a Role in Innovation

In high-performing relationships, business analytics has been increasingly the driver of innovation after other transformation levers—typically labor relocation, centralization, and standardization—have been deployed. One provider on a high-performing BPO account with a hi-tech company explained:

Whoever you select as a provider, within one year, the SLAs are going to be green. That's just going to happen. The business case, that's mostly labor arbitrage. So one year in, everything's green, you're going to ask, so where do I get my additional value? And you need to look at a provider who can start thinking about that and providing that. And the only way you drive that out is through the analytics that look at processes end-to-end.

Whereas business analytics examines past business performance, predictive analytics forecasts the probabilities of possible future outcomes and plans accordingly. Clients in high-performing BPO relationships increasingly rely on the provider's predictive capabilities, which are enabled by their technologies, for innovations that lead to better performance. In one BPO account for a large, multi-state healthcare organization, the BPO service provider pre-examined healthcare claims and predicted whether the claim would require rework. Subsequently, more than 50% of the preventable financial rework was being identified and corrected. Predictive analytics saved between US\$25 and US\$50 in administrative costs per overpaid claim and between US\$6 and US\$12 per underpaid claim.

Limitations of the Research

This research has a number of limitations. Pertaining to the interviews, the 24 BPO relationships do not represent a random sample, but rather a convenience sample. The disadvantage of a convenience sample is that it includes sampling bias, and findings do not represent the population of BPO relationships. We and the research sponsors aimed to understand emerging best practices from high-performing BPO relationships; thus the paired interview samples are purposefully biased toward higher-performing relationships. In the Introduction, we gave a better indication of the population of BPO relationship outcomes, which indicates that about 20% of relationships are high-performing in the wider population. We know that BPO performance is not static, nor a given. By studying high performers, practitioners may consider the suitability of the lessons learned for their own BPO relationships.

The survey also has a number of limitations, in that we were severely limited in the number of questions we were allowed to ask. Participants had to be able to answer the questions in five minutes, thus we could not measure constructs with multiple item scales. The survey was primarily beneficial for understanding the definition of innovations, the source and funding for innovations in outsourcing relationships, and getting examples of innovations.

Conclusion

High-performing BPO relationships are good at dynamic innovation, but many other BPO relationships still need to work on incenting, contracting for, and delivering innovation. The most important catalyst is an effective leadership pair to drive the dynamic innovation process. Even BPO relationships that were poor-performing initially were transformed over quite short periods of time into good or even great BPO performers under a new leadership pair. The leaders foster dynamic innovation by creating strong incentives. The most effective innovation incentives are mandatory productivity targets, innovation days, and gainsharing at the project level. Threat of competition and special governance arrangements for innovation also positively influence innovation. The least successful incentives for innovations were found to be innovation funds, gainsharing at the relationship level, what has been called “painsharing” and benchmarking. Even when contracts did not initially include innovation incentives, we found several high-performance organizations adding incentives after the BPO relationships stabilized.

But effective innovators recognize that creating incentives can only take you so far. Delivering innovations requires a process we call AIFI—Acculturating, Inspiring, Funding, and Injecting. It has been frequently remarked that: “If you always do what you always did, you will always get what you always got.” Delivering innovations requires acculturation, that is, establishing a collaborative culture. This acts as a foundation for practices that inspire, fund, and inject cycles of innovations in the client organization. To achieve step-change improvements, organizations need to break the strong forces of habit and administration in their outsourcing

arrangements, and mandate innovation. The outsourcing industry increasingly cannot ignore the innovation potential and value buried in and passed up by its more traditional modes of operation. The practices we document in this chapter add up to no less than a mind-set and behavior change for all parties determined to meet the dynamic innovation challenge.

Notes

1. See Willcocks, L.P., Lacity, M., and Craig, A. (2012). *Becoming Strategic—South Africa's BPO Service Advantage*. LSE Outsourcing Unit Research Paper 12/3, LSE, London. This should be compared with a more optimistic forecast of J. Harris, K. Hale, R. Brown, A. Young, and C. Morikawa. "Outsourcing Worldwide: Forecast Database". Gartner, September 13, 2010. <http://www.gartner.com/id=486175>. They suggested a market of \$309 billion revenues in 2012.
2. The estimates come from reviewing our high-performance case research for 2012/2013 and considering also the following studies. Our most comprehensive data comes from Lacity et al. (2012) *op.cit.* which reviews 1356 findings from 254 academic research studies. Most of this research is based on large-sample surveys of outsourcing clients or in-depth case studies at client sites. Many academic studies examined specifically the extent to which outsourcing engagements resulted in positive outcomes from the client's perspective. Aggregating results across all BPO empirical studies reveals that BPO clients reported positive outcomes from outsourcing business processes 56% of the time, negative outcomes 11% of the time, and no changes in performance as a consequence of outsourcing business processes 33% of the time. (ITO clients, by comparison, reported positive outcomes from outsourcing 63% of the time.) A further source is Willcocks, L.P., Lacity, M., Simonsen, E., Sutherland, C., Hindle, J., and Mindrum, C. (2012). *Achieving High Performance in BPO: Research Report*. Accenture, London. The BPO survey conducted by Everest Group in this research identified 20 percent of respondents as "best-in-class" scoring strongly on at least three must-have attributes and in the top quartile on seven additional attributes. A further 20 percent were "potential" high performers meeting one or other of these two criteria; 60 percent were typical BPO performers meeting neither criteria. Note that typical

here covers a wide spectrum of performance from normal to poor. The research found that levels of performance were independent of industry, geography, size of deal, tenure of BPO relationship and business function outsourced.

3. We have been conducting BPO case studies since 2000. Some of our first BPO case studies are published in Willcocks, L.P., and Lacity, M. (2006). *Global Sourcing of Business and IT Services*. Palgrave, UK. Our most recent BPO work is found in: Lacity, M., and Willcocks, L.P. (2012). *Advanced Outsourcing Practice: Rethinking ITO, BPO, and Cloud Services*. Palgrave, London. We also use the data from 26 organizations' study of outsourcing and collaborative innovation. See Whitley, E. and Willcocks, L.P. (2011). "Achieving Step-Change in Outsourcing Maturity: Towards Collaborative Innovation". *MISQ Executive*, 10 (3): 95–107.
4. Lacity, M., and J. Rottman, J. (2012). "Delivering Innovation in Outsourcing: Findings from the 2012 Outsourcing World Summit". *Globalization Today*, March, pp. 26, 31.
5. See Willcocks, L.P., Cullen, S., and Craig, A. (2011). *The Outsourcing Enterprise*. Palgrave, London.
6. OCR, Optical Character Recognition.
7. See Lacity, M., and Willcocks, L.P. (2012). "Mastering High-Performance: The Case of Microsoft's OneFinance" available at <http://www.accenture.com/Microsites/highperfbpo/Pages/who-got-it-right.aspx>
8. See Accenture. (2012). *Achieving High Performance in BPO: Research Report*. Accenture, London, available at <http://www.accenture.com/Microsites/highperfbpo/Pages/home.aspx>

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4

What Client Firms Want and Are Willing to Do to Achieve Innovation from Their Suppliers: Insights from the Nordic, Italian, and British Outsourcing Sectors

Ilan Oshri, Julia Kotlarsky, Angelika Zimmermann,
and Giovanni Vaia

Introduction

So far we have established in this book that nearly any client firm is now taking interest in the following question: how can we achieve innovation from our suppliers? Interestingly, it has also emerged that, while innovation has become a common practice within the firm, the road to achieving innovation from external suppliers is still bumpy. There are numerous

I. Oshri (✉) • A. Zimmermann
Loughborough University, Loughborough, UK
e-mail: A.Zimmermann@lboro.ac.uk

J. Kotlarsky
Aston Business School, Aston University, Birmingham, UK
e-mail: j.kotlarsky@aston.ac.uk

G. Vaia
Ca' Foscari University, Venice, Italy
e-mail: g.vaia@unive.it

open issues that make innovation in outsourcing a true challenge. Let us pick out four major ones emerging from the previous chapters. Firstly, innovation is defined and understood in different ways by the client and the supplier. Secondly, as innovation is delivered via an external party, the implications for the way innovation will be governed and delivered as part of the outsourcing engagement are not clear for many practitioners, though the evidence from the previous chapters gives a strong steer. Thirdly, many still debate whether the contract is an enabler or an inhibitor of achieving innovation. Fourthly, many practitioners remain unclear whether good relationships are the ‘holy grail’ of innovation, or whether contracts can substitute for ‘relationships,’ making good relationships just another contributing factor.

In this chapter, we offer insights on such matters from two studies we conducted among CIOs in Nordic countries, Italy and the UK. We first present the results from the study in Nordic countries followed by the results from the Italian and British outsourcing sectors. Results from both studies help us understand what works and does not work when client firms go on the innovation journey. We see the key contributions of this chapter as threefold: firstly, it is among the few studies that reports on innovation practices. Secondly, this study captures the notion of relational contract, a contract whose effect is based upon a relationship of trust between the parties thus critical to achieving innovation. Thirdly, the second study clarifies the role of advisory services in achieving innovation. This connects also to the focus on the role of consultants discussed in Chap. 6.

Many of the examples of innovation in outsourcing projects in these studies were in the area of automation, process improvement, and the move to the Cloud. This shows that client firms are looking for ‘anything that improves performance.’ Such a broad definition works well for both client and supplier firms and enables them to be focused on results rather than an undefined or vaguely defined innovation.

According to our survey in *Nordic countries*,¹ client firms have experienced that innovation reduced costs (58%)² and transformed their processes (58%). This is once again a very strong message from Nordic client firms to their suppliers that they expect innovation in outsourcing engagements that adds value beyond the service-level agreement in

the contract. Interestingly, only a minority of client firms in Nordic countries felt that innovation in outsourcing was achieved within the agreed time frame (23%) and budget (29%). Flexibility from the client side is therefore imperative to motivate suppliers to engage in innovation.

Our research has shown us that there are two main components that motivate suppliers to deliver value to their clients: the economic model (or also known as the pricing model) and the relational aspect. Our study sheds light on both aspects, in a way that has barely been explored in the past. Our results suggest that in terms of the pricing model, fixed price and time and materials on their own are not enough for delivering innovation in outsourcing. On the other hand, an outcome-based pricing model and gain-sharing clauses in any of the pricing models are regarded as effective motivators for suppliers to take on the innovation challenge (see also Chap. 3 for comparisons). Additionally, our survey suggests that measures of innovation are important (78%), followed by mandatory targets to improve the client's productivity (70%) and flexibility regarding the delivery scope (70%). There was also some support for the utility of penalty schemes (58%), flexibility regarding service quality (58%), and service costs (58%).

Client firms have demonstrated significant investment in creating the conditions for collaborative work. They reported working as a team with the supplier to achieve innovative solutions (79%), retaining key supplier employees (64%), and feeling comfortable asking the supplier for innovative solutions to some specific challenges (79%). But many firms still did not treat suppliers' employees as their own (50%), or host supplier's employees at the client site (50%).

One of the critical areas that this study revealed is the extent of change management the client firm needs to introduce in order to accommodate innovation within the outsourcing context. CIOs reported that actively managing the changes that an innovation brings to the organisation (85%) and investing a significant amount of effort into its implementation (70%) are prerequisites for realising the potential of innovation through outsourcing.

Last but not least, results show that innovation is not a bottom-up initiative. It needs the active involvement of executives and a formal (as

well as an informal) organisational structure and communication channels. Executives should:

- allocate time for innovation;
- have a clear methodology for innovation;
- be committed to hold joint innovation days;
- secure funds for innovation;

Results from the study³ in Italy and the UK show as follows:

- Italian client firms reported more satisfaction with the quality, frequency, and impact of innovation delivered by suppliers than their British counterparts.
- In outsourcing engagements where innovation is sought, Italian client firms' strategic intent has been revolving around the objective to increase the pace of innovation within the firm, while their British counterparts have been focusing on cost reduction.
- Italian client firms have mainly been using outcome-based pricing model, while British client firms have mainly been using fixed-price model.
- Italian client firms have been using advisory firms to a far more extent than their British counterparts.
- Italian client firms have reported higher degrees of collaborative mode of working with their suppliers than their British counterparts.

The results of these two studies suggest that a systematic approach to foster collaborative innovation is needed in which both relational and contractual aspects are integrated as part of the planning and delivery of value-added services.

The Nordic Perspective on Achieving Innovation Through Outsourcing

In management terms, following on from our earlier chapters, innovation can take the form of a *new product* or *service* offered to clients or a *new process* through which an organisation develops products or delivers

services. Innovation can also be anything that is state-of-the-art and also anything which is new to the organisation.

Innovation does not come easy, whether as an in-house process or through external partners. When in-house, inertia forces often obstruct attempts to innovate and break away from old ways. And when sought through relationships with partners, innovative efforts face additional challenges, for example, having to agree and monitor how each party involved should contribute to the partnership as well as benefit from the value created.

The outsourcing context poses additional challenges to achieving innovation between a client firm and a supplier. One of the main reasons often cited by CIOs for failing to achieve innovation in outsourcing is the difficulty to strike a balance between the partnership and collaborative attitude needed for joint innovation projects (see also Chap. 2). Further, client firms struggle to use pricing models that motivate the supplier to engage in high-risk innovation projects while safeguarding the client's interests (see Chap. 3).

So how can companies innovate through various ways of sourcing? From the extensive research we have conducted into innovation practices in outsourcing settings, we have learnt that very often client firms have had an ad hoc approach to achieving innovation. For example, we have seen several cases in which innovation projects within the outsourcing contexts have emerged out of an informal chat between the CIOs of the parties. While such initiatives can be successful, an ad hoc approach is unlikely to promote a culture of systematic effort to arrive at innovation with the supplier network. Moreover, if earlier chapters established that measurement is important, it is very difficult to measure innovative processes and outcomes when companies innovate on an ad hoc basis.

Is Innovation Within Outsourcing Settings Important?

Innovation can be generated from different parts of the organisation, so why has it become the latest 'holy grail' for the outsourcing industry? We have observed two key drivers for the rise of the innovation concept within the outsourcing industry. First, the outsourcing of parts of the

value chain of a function often resulted in the loss of innovation capabilities on behalf of the client firm. Second, suppliers have gradually gained extensive domain and process knowledge by delivering services to numerous clients from a specific sector, thus allowing them to realise innovation opportunities better than a single client. These two trends have created a shift in executives' perception of where innovation should come from. While innovation is still created internally, collaborating with a supplier network is perceived as an important vehicle for tapping into sources of change and transformation.

Executives in our study reported that innovation in outsourcing contributed to cost reductions (58%) and helped transform the firm (see Fig. 4.1). This transformational effect concerned primarily processes within the firm (58%) and to a lesser extent new services and products (35%). These results provide some indication that it is challenging for

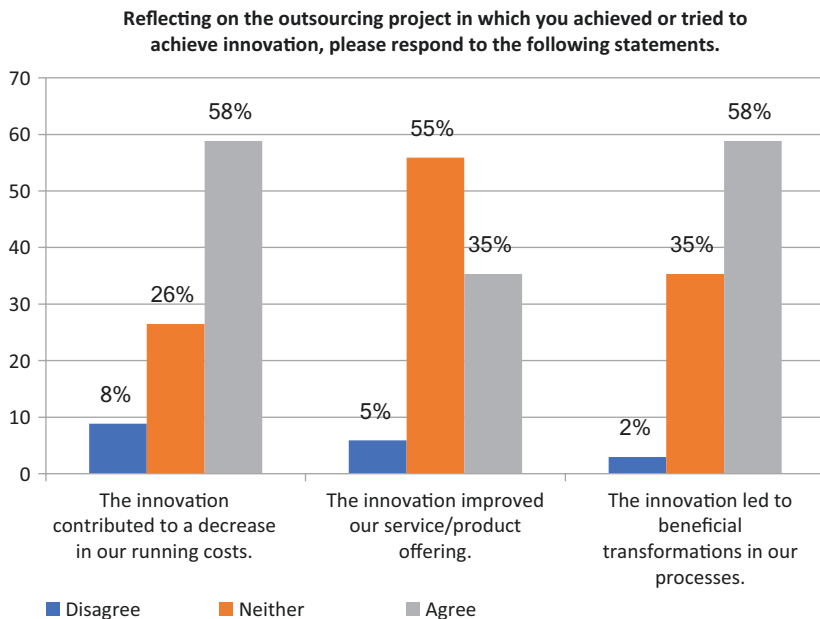


Fig. 4.1 Is innovation in outsourcing important? (Results in this figure and others sometimes do not add up to 100% because some respondents have chosen 'Do Not Know' which was not included in this presentation)

clients and suppliers in the outsourcing industry to jointly develop innovative services. One reason for the difficulty in achieving service innovation is the rather significant investment on behalf of the supplier to develop a thorough understanding of the client’s business and their competitive forces, as well as the relatively high uncertainty of the return on investment. Our study suggests that suppliers and clients find it easier to achieve innovation in areas where the parties can control the level of investment and returns, as in the case of process innovation.

Interestingly, only a minority of client firms felt that innovation in outsourcing was achieved within the agreed time frame (23%) and budget (29%)—see Fig. 4.2. Such results are consistent with past studies yet still pose a major challenge to both client firms and suppliers. Firstly, badly managed innovation projects are likely to deter client firms from engaging in future innovative endeavours with their suppliers. Secondly, suppliers may suffer from decreasing margins in poorly managed

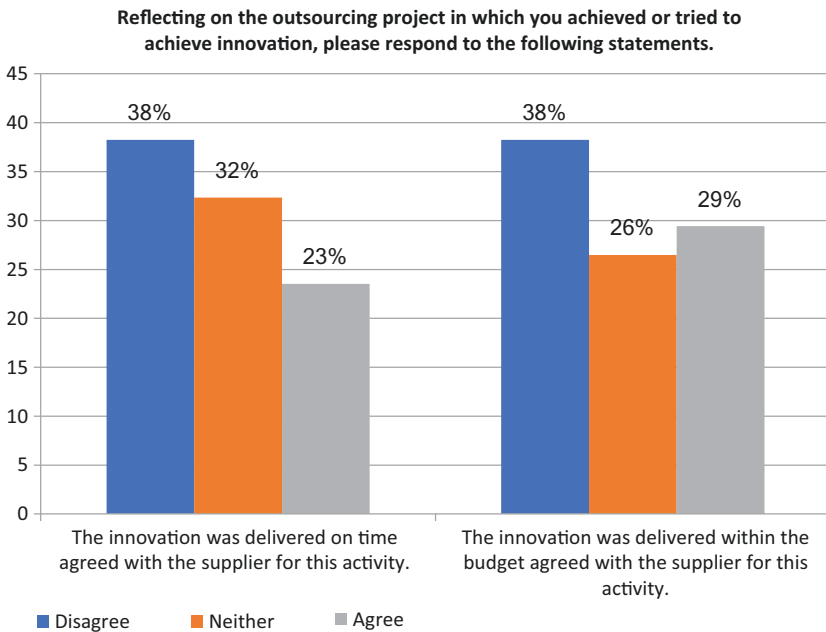


Fig. 4.2 Innovation, budget, and time

innovation projects when fixed-price or outcome-based pricing models are used, and also likely to negatively affect their relationships with the client. Clearly, the results of this study call for a careful examination of this matter by both parties.

Innovation and Pricing Models: What May Work Best

Selecting a pricing model that may facilitate innovation is imperative. The professional and academic literature has traditionally focused on two pricing models: fixed price and time and materials. Recently, an outcome-based pricing model has been applied more frequently in outsourcing settings though it is still not as popular as the other two. The common assumption in the academic literature is that these pricing models can play different roles in supporting innovation. At the basis of this claim is the postulation that innovation offers some degree of uncertainty for the supplier. Therefore, a fixed-price model, which presents little tolerance of uncertainty, is unlikely to support innovation. Time and materials may accommodate the supplier's risk mitigation strategy as the supplier can recover any investment made; however, the client might be exposed to ongoing payments which may negatively affect the relationships with the supplier if the innovation is not well defined. Last but not least, an outcome-based model may reduce the client's risk and may serve the supplier's agenda to pursue well-defined innovation targets. As such, an outcome-based model may support innovation.

The results of our study support the above claims (see Fig. 4.3). In particular, over 50% of the executives disagreed with the argument that a fixed-price model increases the chances of delivering innovation. Also, the role that time and materials model plays in supporting innovation is ambiguous with the majority of the respondents (62%) neither agreeing nor disagreeing with our statement. Interestingly, an outcome-based pricing model is viewed as supporting innovation, with 41% of the executives disagreeing that this contract type does not deliver innovation, therefore suggesting a positive effect.

Our results also reveal that 76% of the executives think that there is a significant incentive in including gain-sharing clauses in any of the

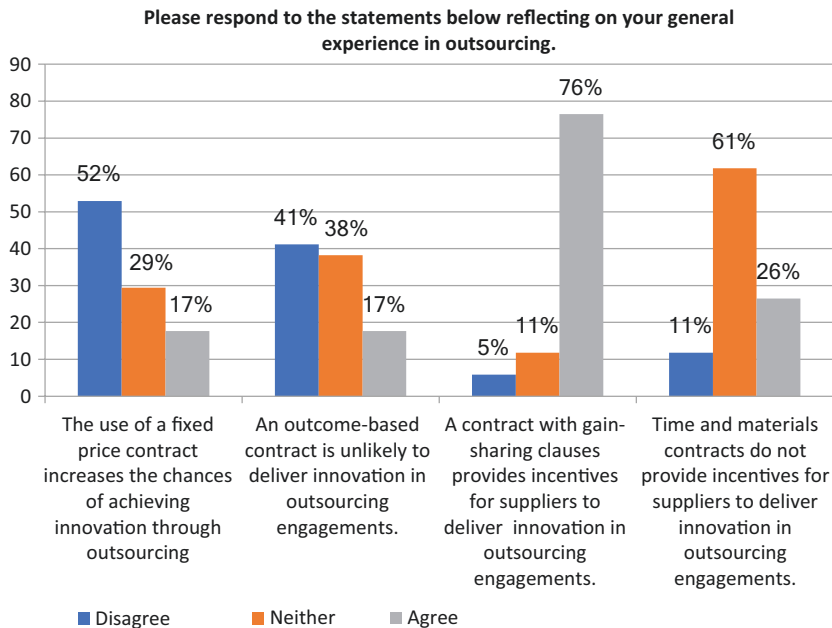


Fig. 4.3 Innovation and contract types

pricing models as a way to achieve innovation. Gain-sharing clauses incentivise the supplier and the client to engage in innovation by clarifying what the returns on investment would be should the innovation be successfully implemented.

However, when analysing the pricing models used by the respondents in their outsourcing engagements, we see that the vast majority of the firms are still using fixed-price or time and materials pricing models (together 58% of our sample). Only a fraction of 6% has been using a pricing model that has had gain-sharing clauses or one with shared risk-reward clauses. See Chap. 3 for comparative findings on this issue (Fig 4.4).

Our interviews stressed that a lack of flexibility in the outsourcing agreement can inhibit innovation if its scope does not include novel, better solutions (e.g. cloud services) that have become available in the market after the contract had been signed. One executive stated:

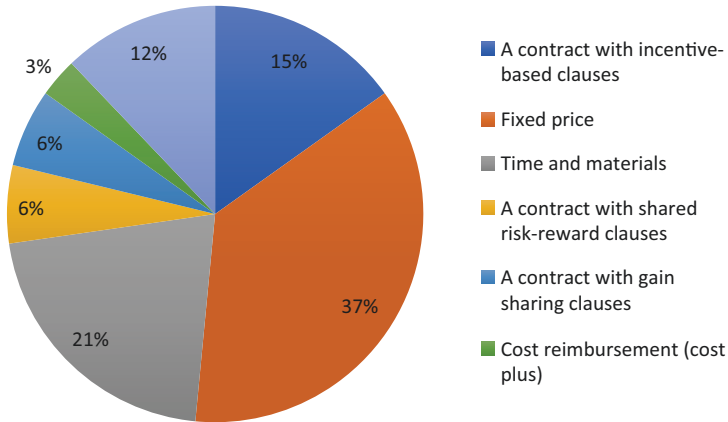


Fig. 4.4 The distribution of pricing models

if we haven't bought a cloud service from the beginning, we have bought something else, that's what we have, that's what we're stuck with.

Moreover, when deliverables are clearly defined and fixed, the terms may have to be re-negotiated in the case that suppliers suggest alternative, innovative solutions. Such re-negotiation requires effort on the side of client and supplier. Both may eschew such effort and prefer adhering to the current terms:

if the suppliers come and say: "I have an idea for you", that means that we will renegotiate the agreement. ... Both parties are very often reluctant to do that because it takes quite a lot of effort to do renegotiation.

Re-negotiating terms can also create a risk to the supplier, as they may have to fear that the client firm places a new bid in the market for the new product. This risk will discourage the supplier from suggesting highly innovative solutions. To counteract this dynamic, client firms can, however, build explicit guarantees:

if the supplier comes up with another way of doing it which is more efficient, they should report it, but we [the client firm] should then not be allowed to put it up for competition.

The Role of Knowledge and Capabilities

Innovation is enabled by the innovator’s ability to understand the challenge, apply knowledge to develop or search solutions, tap into resources and capabilities in order to implement a solution, and measure the impact of the innovation. Firms that have outsourced functions may have lost specific domain knowledge that may hamper their innovation efforts. Therefore, it is imperative to understand the role that knowledge and capabilities play in supporting innovation in outsourcing.

Our study suggests that supplier firms indeed possessed such knowledge in projects where innovation was achieved or tried to be achieved (Fig. 4.5), particularly when it came to the supplier’s knowledge of the client’s technical platform (94%), the understanding of the client’s strategic roadmap (79%), and their processes (70%). At the same time, to enable innovation, client firms need to invest in understanding the

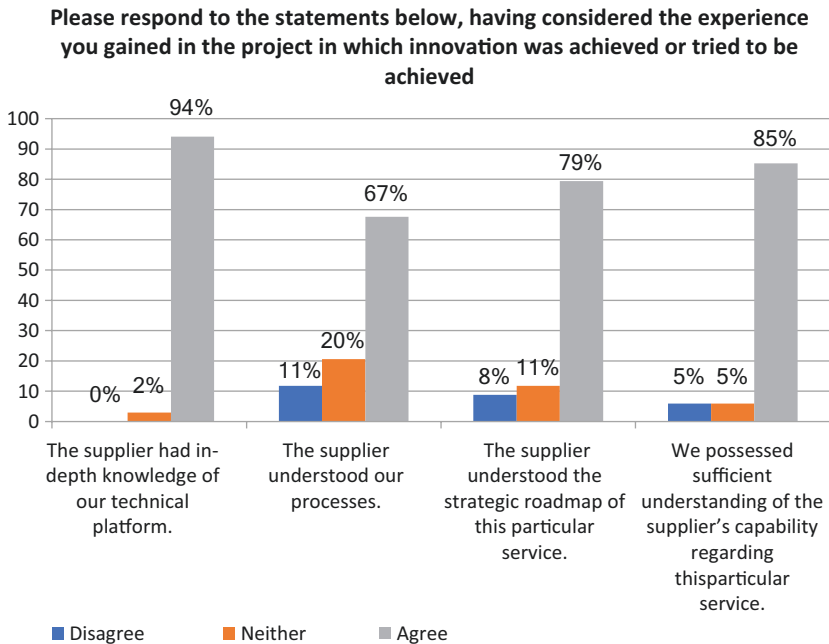


Fig. 4.5 Knowledge and capabilities

supplier's capability in the particular area of the service, and this was again the case in the majority of participating firms (85%).

The Collaborative Approach

As another key finding, our study shows how innovation through outsourcing relies heavily on a close collaboration between client and supplier (see also Chap. 2). Our interview partners stressed that this collaborative approach is where firms often fail, and is a common reason for poor innovation performance. A collaborative approach is thus an indispensable complement to economic incentives to innovation. As one respondent pointed out:

I think the most important thing is: ... If you want to do some innovation together with your partner, you need to view the outsourcing as a partnership, and I think a lot of people are not doing it.

A collaborative approach to innovation involves several elements. Firstly, supplier and client need to align their respective goals and objectives with each other in order to arrive at a shared understanding and motivate both sides to engage fully in the innovation process. Secondly, they need to develop trust and a culture of open communication to facilitate an unrestrained exchange of ideas, and thirdly they need to grow a close relationship. Fourthly, proactivity and high effort not only by the supplier but also by the client are prerequisites for developing and implementing innovative solutions.

Alignment of Goals and Objectives

Aligning client and supplier goals and objectives is important from a cognitive as well as motivational perspective. Our interviewees reported on cases where suppliers and clients had different understandings of the purpose of innovation, for example, to either develop

new services or lower the costs of the current service. Not surprisingly, this inhibited joint innovation efforts. Moreover, a solid understanding of each other's business goals enables suppliers to suggest innovations that are actually relevant to the supplier, and allows client firms to incentivise the supplier to develop innovations that are also useful for the supplier's business in the long term. Such a shared understanding of goals and objectives thus helps the partners to create a win-win situation. For example, one informant described how such a win-win situation could be created in an informal manner. In return for innovative services, the supplier asked the client firm to help in marketing these services:

They [supplier] will come in and say, "We've got a brilliant idea. If you think it's a great idea as well, we can do this for a limited amount, but you need to help us market it afterwards."

Whilst such an understanding and alignment of each other's goals is commonly achieved through intensive communication and supported by strong informal relationships, such an understanding also facilitates the design of formal gain-sharing clauses. For this reason, it is important that sufficient time is allocated before and during the contracting phase to discuss shared business interests. Accordingly, the vast majority of our survey respondents agreed that prior to signing the contract, client and supplier should spend a significant amount of time on discussing their shared business interests (85%); that it is important to set a clear joint innovation agenda for the client and supplier (82%) and to create a win-win situation for the client and the supplier through the innovation initiative (76%)—see Fig. 4.6.

Aligning goals and objective requires a long-term perspective for the outsourcing collaboration. A long-term relationship not only facilitates shared technical understanding but also helps both partners to gain thorough insights into the supplier's and client's business aims, which in turn enables suppliers to suggest client-specific and strategically relevant innovations, even for technically advanced products or services, and for finding win-win solutions.

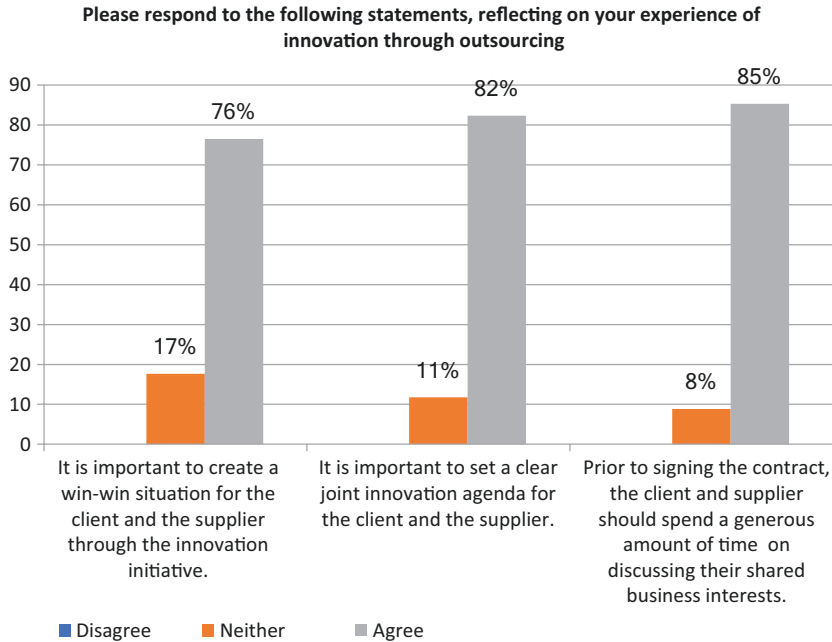


Fig. 4.6 Alignment of goals and objectives

Trust and Open Communication

In our study, *trust and a culture of open communication* emerged as further crucial determinants for innovation in outsourcing. Our interview respondents explained that suppliers need to expose at least some of their cost structure to the client, in order to discuss figures and set up joint innovation objectives with regard to cost reduction. Respondents also stressed that client firms need to be open about their difficulties and mistakes, for example, cost inefficiencies, in order to ask suppliers to come up with solutions. Conversely, it was emphasised that suppliers have to point out such mistakes to the client and suggest solutions. It was regarded as the supplier's responsibility to actively question the state of affairs and come up with innovative ideas without being prompted:

They need to come up with ideas and call us without it necessarily being on the agenda, and say: "We have a great new idea. Could this be something?"

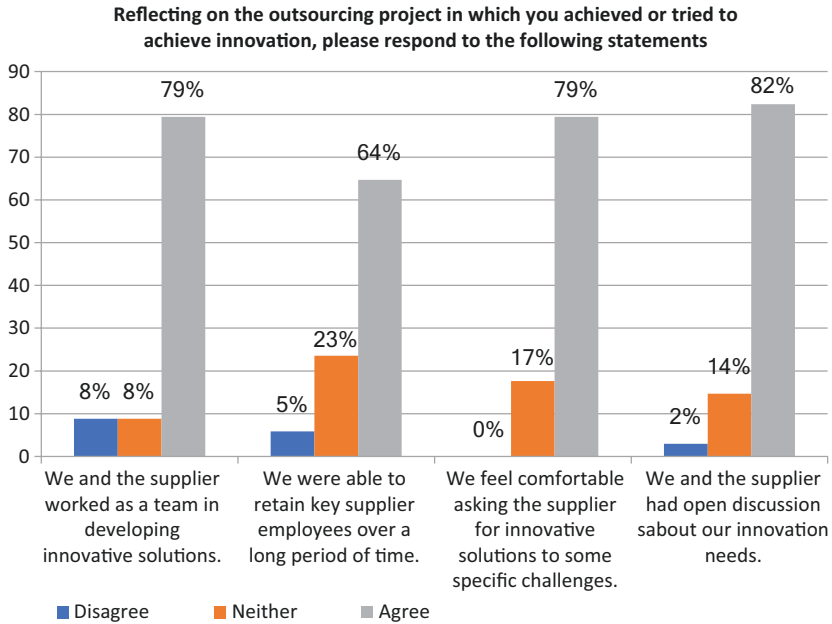


Fig. 4.7 Trust and open communication

In our survey, the large majority of respondents felt that their firm did indeed follow such a collaborative approach to innovation in outsourcing (Fig. 4.7). They reported that they worked as a team with the supplier to achieve innovative solutions (79%), were able to retain key supplier employees (64%), that they felt comfortable asking the supplier for innovative solutions to some specific challenges (79%), and that they had open discussion with the supplier about their own innovation needs (82%).

Closeness of the Relationship

We found a clear difference in responses, though, when it came to the closeness of client-supplier relationships. On the one extreme, an executive strongly advocated that innovation through outsourcing was best achieved by treating supplier employees like the client firm’s own employees and giving them equal work spaces in the client firm. This was seen to

foster informal ties and frequent communication, which in turn helped in achieving a climate of trust and openness as well as a complex understanding of client-specific technology:

They [client employees] have a similar desk as mine, similar computer, similar screen—we eat in the same canteen and it’s exactly the same. So not an old room in the basement with no lights and all of that. ... They’re sitting right next to us and we need that, simply to make the business intelligence part work because it’s a lot about communication and understanding the business needs.

However, survey results indicate that not all firms go that far (Fig. 4.8). Only 50% of respondents agreed that their supplier employees involved in innovative work were (at least temporarily) located at their company site, whilst 36% disagreed. Similarly, 50% of respondents agreed that the client firm treated key supplier employees like their own employees, and

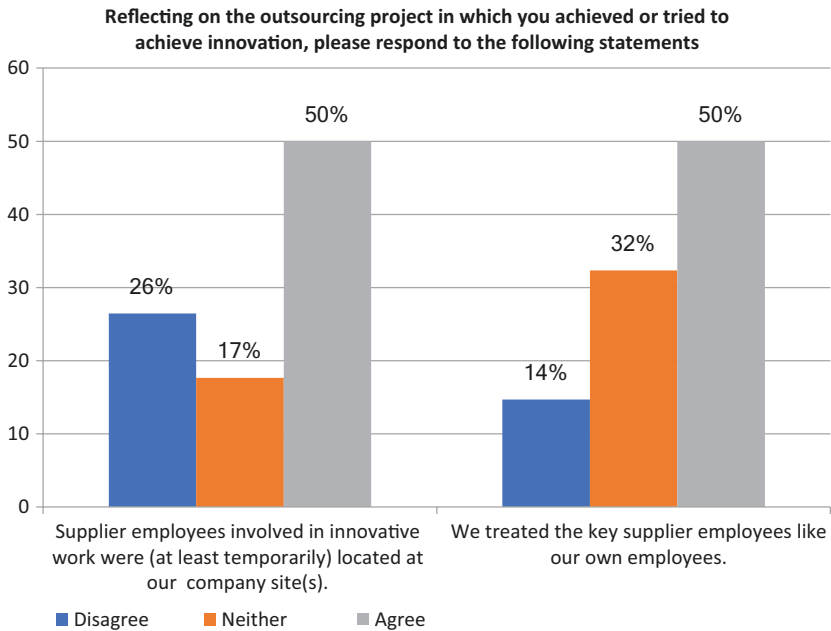


Fig. 4.8 Closeness of the relationship

12% disagreed. Co-location is of course restricted when firms choose to outsource to an offshore supplier.

Proactivity and Effort by Supplier and Client

The collaborative approach further requires that both supplier and client firms are highly engaged in the innovation process, and that the client firm takes responsibility particularly in the implementation of an innovation (Fig. 4.9). The majority of survey respondents agreed that the client firm has to actively manage the changes that innovation brings to the firm (85%), and that leadership in the client firm has to invest a significant amount of effort into the implementation of the innovation (70%).

However, particularly in the case of strategic innovations, the implementation of new solutions often demands changes to complex

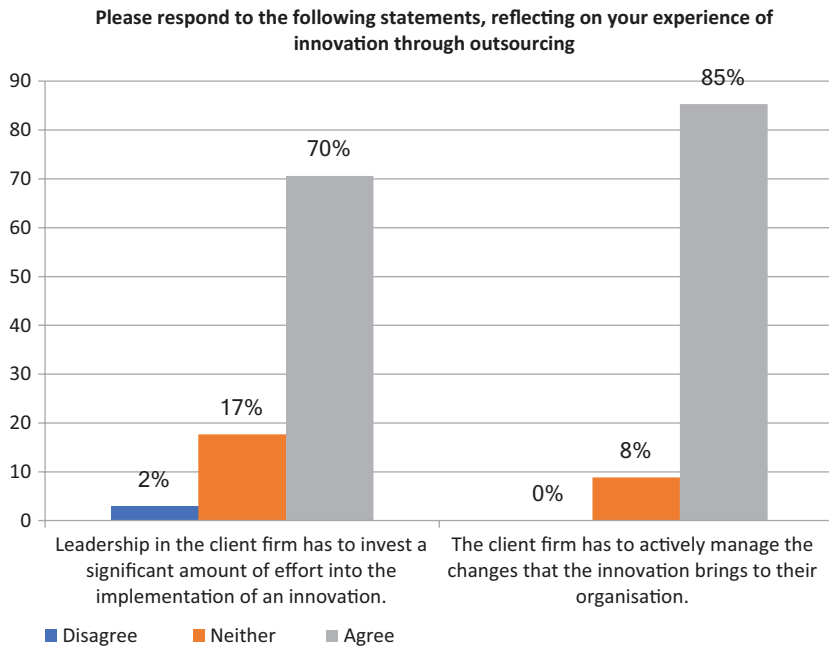


Fig. 4.9 Proactivity and effort by supplier and client

procedures, processes, or IT infrastructures within the firm, which makes the implementation time and resource consuming. Not surprisingly therefore, our interviewees emphasised that it was often the client firm who inhibited the implementation of an innovation that the supplier had suggested, by not being willing enough to make the required changes:

The problem is not the suppliers. The problem is the company. Because the company has to be willing to change and introduce this new innovative idea.

The interviewees further felt that many client firms relied too much on the supplier to achieve innovation, and were not sufficiently aware of their own responsibility to put the innovation into practice in their own firm:

That's something I hear from a lot of others who are outsourcing, that there's so much blame on the terrible outsourcing partner. They forget that the responsibility for anything we do is primarily lying with ourselves.

Innovation Mechanisms

Beyond economic incentives and taking a collaborative approach, our study demonstrates that certain mechanisms are highly instrumental in fostering innovation in outsourcing. These included an innovation methodology, joint innovation days, and innovation centres (see Chap. 3 for comparative findings).

Our study suggests that firms need to have a clear *innovation methodology* regarding steps, timing, and actions to be taken when an innovative idea is proposed. When a potential innovation has been identified, client and supplier employees need to know what actions to take. As one participant noted, it is not enough to define targets for suppliers like 'Come up with ten [innovations] per year.' Instead, a written agreement should be set up regarding stages and acceptable timelines for trial and execution periods. Such an agreement can guide supplier and client employees and decrease the implementation effort, and thereby prevent the common case that an innovation is not put into practice.

Our respondents praised joint innovation days and innovation centres as particularly useful methods for achieving innovation. Given that innovation is restrained by time pressures, days dedicated exclusively for discussing, planning, and agreeing on an innovation agenda were seen as important incubators of innovation. The same was held true for innovation centres, which were additionally seen to serve the client firm to gain an insight into the supplier's broader offerings, and to reach a shared understanding with the supplier of which innovative services or products are relevant for the client. As one respondent put it:

Twice a year we go to and visit [the supplier's] Innovation Centres ... and we simply take a whole week out of the calendar to do that. So we are away, we travel, we shut off the phone, and then it's just about innovating and having an innovative agenda on those days. That works for us ... and I think that is where many fail.

Support by Executives

Importantly, our survey highlights that innovation is usually not achieved by a bottom-up approach but requires the support of executives of client and supplier firms (Fig. 4.10). Only 21% of our respondents reported that innovation was achieved through a bottom-up approach, whilst 66% reported that executives had been instrumental in delivering innovation.

On the one hand, innovative ideas rely on an innovative firm culture, whereby employees at all hierarchical levels think creatively, feel free to voice new ideas, and are motivated to put effort into developing an innovation. Such an innovative climate is required on the side of not only the supplier but also the client firm, whose managers and employees have to take up and implement innovative ideas that the supplier suggests:

If we do not have innovative employees ... you will not get innovation together with your partner, no matter how innovative they are.

On the other hand, such an innovative firm culture relies on leadership by executives. Executives are commonly the ones who have to support an

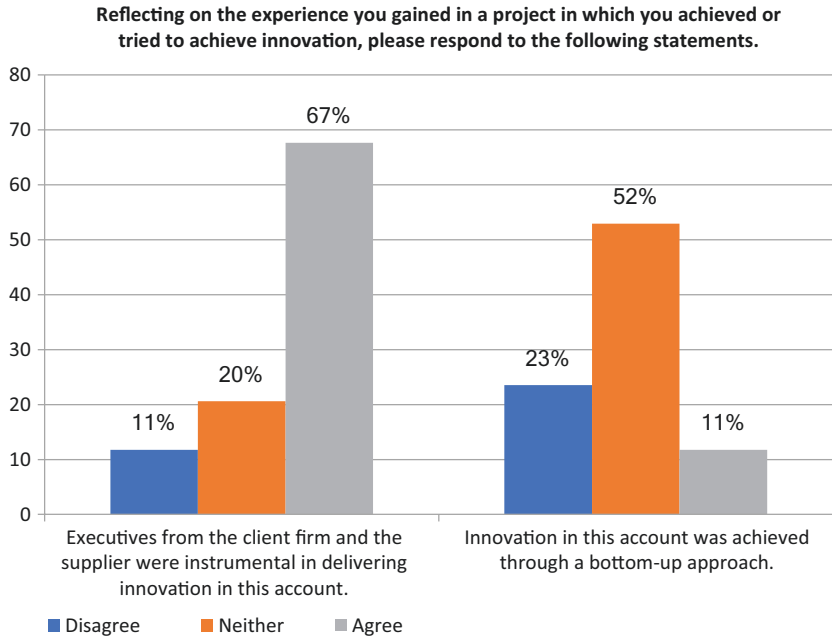


Fig. 4.10 Support by executives versus bottom-up approach

innovation agenda through all stages of the outsourcing arrangement. Ideally, they should allocate sufficient time for developing long-term outsourcing relationships, trialling, and executing innovations; champion innovation agendas and methodologies; commit to joint innovation days; and secure the necessary financial resources. It is worth revising here the subject of leadership pairs as presented in Chap. 3.

Innovation Performance

Our examination of the innovation performance in Nordic countries reveals a mixed picture (Fig. 4.11). The majority of survey respondents perceived that the number and the quality of innovative solutions delivered by suppliers had increased in recent years, demonstrating that suppliers are making an extra effort to be committed to the emerging innovation agenda. However, most respondents felt that the rate of delivering innovation had not increased significantly in recent years, signalling

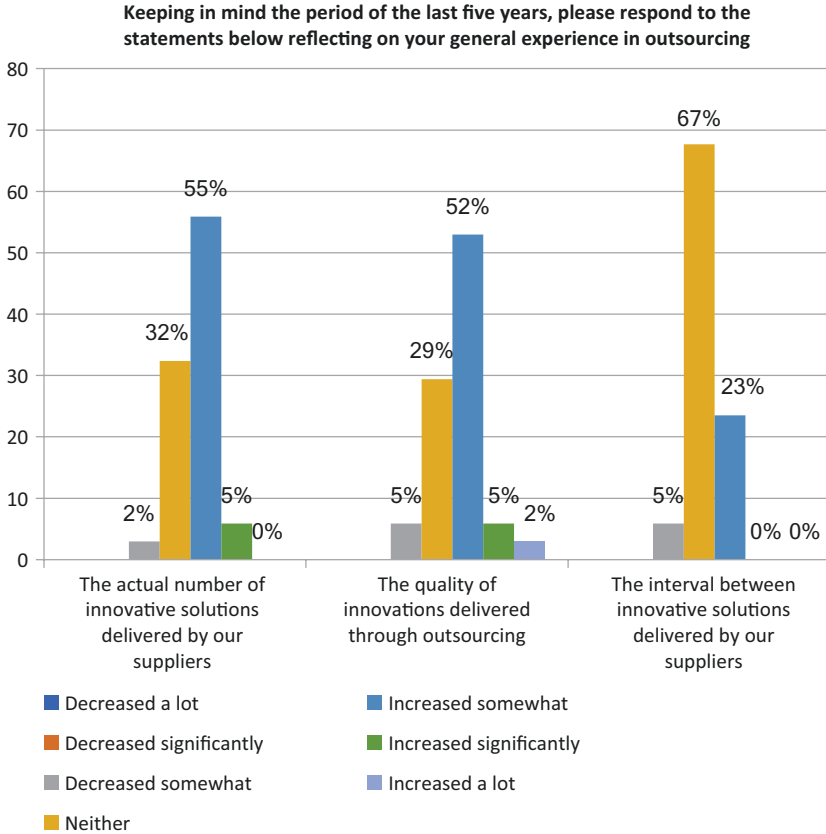


Fig. 4.11 Innovation performance

a challenge on behalf of both parties to allocate resources to initiating and completing more innovation projects within the outsourcing context.

The Italian and British Perspective on Innovation Through Outsourcing

In this further study, we sought to compare the key success factors leading to innovation through outsourcing between the Italian and the British outsourcing sectors. Our assumption was that since the British outsourcing sector is more experienced with outsourcing, it is plausible

that the British outsourcing sector will achieve more innovation and will demonstrate greater satisfaction with innovation than the Italian sector. We first examine and compare innovation performance in Italy and the UK and proceed by explaining performance differences between these two countries.

Innovation can deliver various benefits to the client firm. Strategic innovation is expected to positively affect the way the client firm competes and penetrates new markets, while operational innovation is likely to reduce operating costs and improve efficiencies. Our study reveals a significant difference in six areas of benefits from innovation between the Italian and British outsourcing sector.

Cost-Saving Benefits

Sixty-seven (67%) per cent of Italian executives reported that they agree or strongly agree with the statement that innovation contributed to a decrease in running costs compared with only 41% of the British executives (see Fig. 4.12). These results may suggest the following: (1) innovation in Italy delivers a reduction in running costs more broadly than in the UK and/or (2) Italian executives are more content with the level of cost reduction delivered through innovative solutions by their suppliers than their British counterparts.

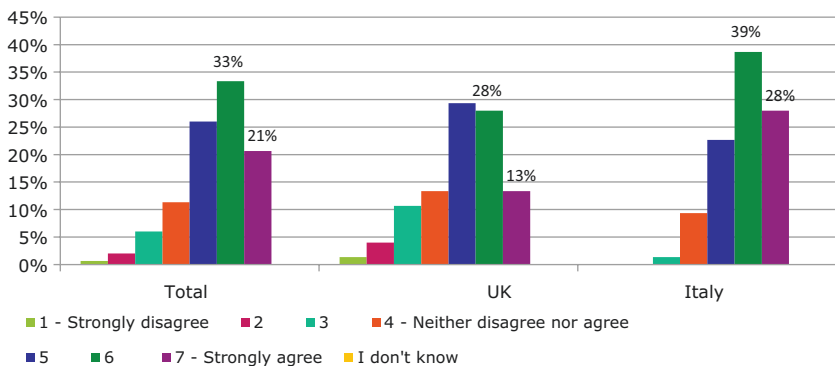


Fig. 4.12 Innovation and running costs

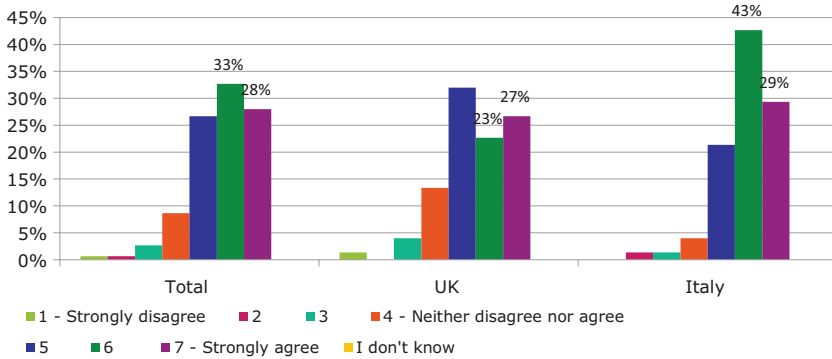


Fig. 4.13 Innovation and service/product offering

Improved Service Offering

Seventy-two (72%) per cent of Italian executives reported that they either agree or strongly agree with the statement that innovation delivered by suppliers improved their service offering compared with only 49% of British executives. These results suggest that (1) innovation delivered in Italy is achieving a broader strategic impact on the business than in the UK and that (2) Italian executives are more satisfied than British executives with the impact on service offering achieved by their suppliers through innovation (Fig. 4.13).

Process Transformation Effect

Seventy-three (73%) per cent of Italian executives reported that they agree or strongly agree with the statement that innovation has led to transformation in processes compared with only 54% of their British counterparts. The results suggest that innovation in the Italian outsourcing sector delivers process transformation more broadly than in the UK, and that Italian executives report satisfaction with the transformation delivered by their suppliers (Fig. 4.14).

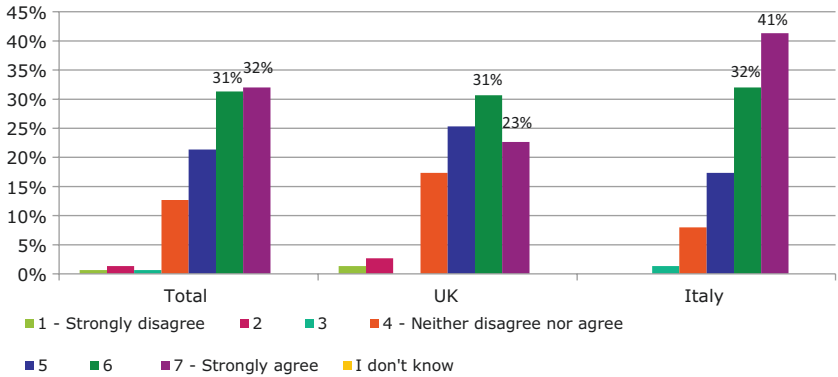


Fig. 4.14 Innovation and process transformation

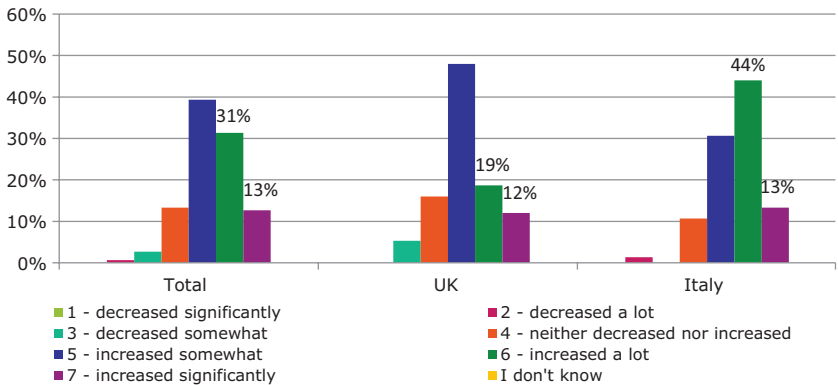


Fig. 4.15 Innovative solutions delivered by third-party suppliers

Number of Innovation Solutions Delivered by Supplier

Another indicator of innovation performance is the number of actual innovative solutions delivered by suppliers. An increase in solutions delivered by suppliers can be seen as a healthy indicator, while a decrease in numbers may suggest that the parties have lost interest in pursuing innovation.

In our study, 57% of Italian respondents indicated that the actual number of innovation solutions has either ‘increased a lot’ or ‘significantly increased’ compared with only 31% of their British counterparts (Fig. 4.15).

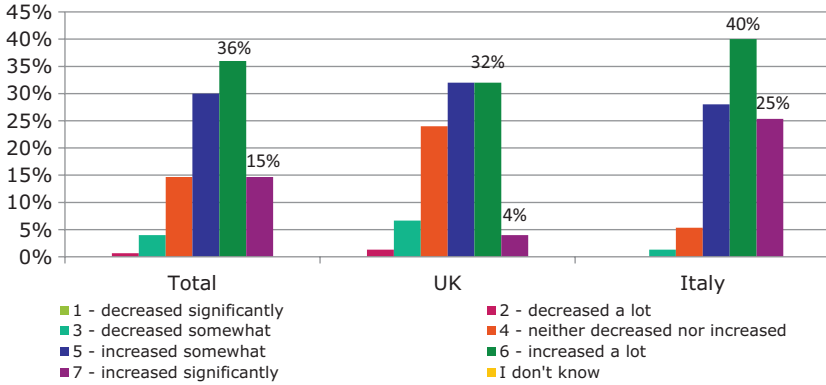


Fig. 4.16 The quality of innovations delivered through outsourcing

The Quality of Innovation Delivered

We have also examined comparative perceptions of the quality of innovation solutions delivered by supplier. Sixty-five (65%) per cent of Italian executives reported that the quality of innovation solutions delivered by supplier has either ‘increased a lot’ or ‘significantly increased’ as compared with only 36% of the British executives (Fig. 4.16).

Interval Between Innovation Solutions Delivered by Suppliers

The rate that suppliers deliver innovative solutions is another health check of innovation performance in outsourcing engagements. Forty-four (44%) of the Italian executives indicated that the frequency of delivering innovation solutions has either ‘increased a lot’ or ‘significantly increased’ as compared with only 19% of British respondents.

To summarise, it is evident from the six areas of benefits examined here that Italian executives hold a much more positive view of their gains from innovation delivered by suppliers than their British counterparts. It is therefore intriguing to understand why Italian executives either gain or believe that they gain more than their British counterparts in terms of the number and quality of innovative solutions delivered by their suppliers.

Differences and Similarities: The UK and Italy Outsourcing Sectors

We start investigating the sources of the differences in benefits from innovation by examining the characteristics of the outsourcing sectors in Italy and the UK.

We found three fundamental differences between the Italian and British outsourcing sector. First, the percentage of large firms (bigger than 1000 employees) participating in this study was higher in the UK (71%) than in Italy (55%). Indeed, the Italian economy is characterised by the relatively higher population of smaller firms as compared with most Western-European economies. The implications of this difference in terms of the firm size is that smaller firms are more likely to work with smaller suppliers thus more capable of maintaining close relationships with their suppliers that often lead to successful innovation.

Second, the strategic intent for outsourcing the functions in which innovation was sought in Italy and the UK is different (see Fig. 4.17). In Italy, the main reason for seeking innovation was to speed up the rate of innovation within the client firm (39%) while in the UK the main driver was to reduce costs (39%). Indeed, most studies have persistently showed that the vast majority of the client firms' drive to outsource is cost reduction. In this regard, the Italian case presents a new motivator in the outsourcing literature that is purely focusing on innovation as an outcome of the outsourcing engagement.

Last but not least, the vast majority of Italian client firms (65%) have used advisory firms to help them achieve innovation in their outsourcing engagements compared with only 39% of their British counterparts (see Fig. 4.18). This approach by Italian firms may have helped them use best practices and advance methodologies leading to high innovation performance (see also Chap. 6).

Other parameters examined in this study did not show significant differences between Italian and British outsourcing sectors. Respondents from the UK and Italy were predominately from the IT area within the organisation (see Fig. 4.19) with an average of five (Italy) or seven (UK)

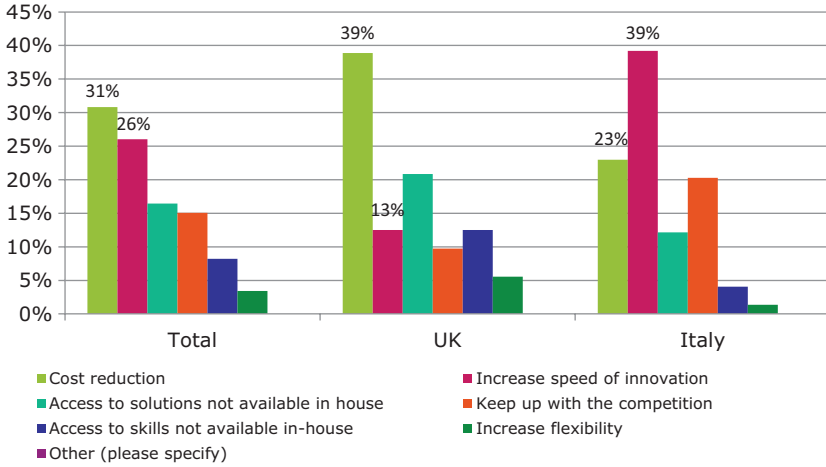


Fig. 4.17 Organisation’s strategic intent for outsourcing and innovation

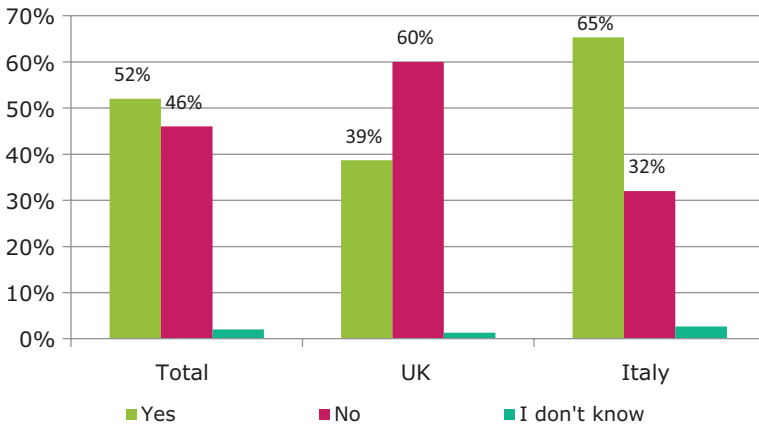


Fig. 4.18 Advisory firms and innovation

years of experience in outsourcing. Similarly, both Italian and British client firms have had six years of outsourcing experience on average. The distribution of functions outsourced by Italian and British firms is very similar with IT infrastructure as the most popular and legal as the least popular functions (see Table 4.1).

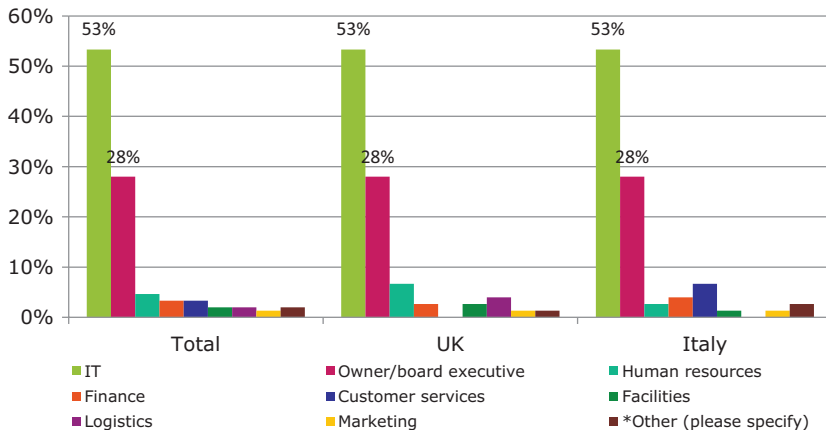


Fig. 4.19 Functional background of respondents

Table 4.1 Areas currently outsourced to third-party suppliers

Base: all respondents	Total	UK	Italy
IT infrastructure (%)	71	65	77
Application development (%)	57	57	57
Software testing (%)	49	49	48
Application maintenance (%)	47	49	45
Finance and accounting (%)	35	28	43
Data warehousing (%)	32	36	28
Procurement (%)	29	20	37
Human resource management (%)	23	17	28
Contact centres (%)	23	24	21
*Other (please specify) (%)	2	4	0
Base	150	75	75

Pricing Models for Innovation: The UK and Italy

Selecting a pricing model that facilitates innovation is imperative. The professional and academic literature has traditionally focused on two pricing models: fixed price and time and materials. Recently, an outcome-based pricing model has been applied more frequently in outsourcing settings though it is still not as popular as the other two. The common assumption in the academic literature is that these pricing

models can play different roles in supporting innovation. At the basis of this claim is the postulation that innovation creates some degree of uncertainty for the supplier. Therefore, a fixed-price model, which presents little tolerance of uncertainty, is unlikely to support innovation. Time and materials may accommodate the supplier's risk mitigation strategy as the supplier can recover any investment made; however, the client might be exposed to ongoing payments which may negatively affect the relationships with the supplier if the innovation is not well defined. Last but not least, an outcome-based model may reduce the client's risk and may serve the supplier's agenda to pursue well-defined innovation targets. As such, an outcome-based model may support innovation. Recently, we reported that the combination of incentive-based clauses with either fixed price or time and materials is also likely to promote innovation (Fig. 4.20).

In this study, we observed a significant difference between the pricing model used by Italian and British firms in outsourcing engagements where innovation was sought. While fixed price was the leading pricing model in the UK (45%), Italian firms have adopted an outcome-based pricing model (40%). These results confirm our observation that outcome-based pricing models are more likely to result in higher degrees of innovation, while fixed-price contracts are more challenging to deliver innovation. Our results also show incentive-based models such as gain sharing or risk sharing are hardly used in the UK and Italy, though executives from both sectors hold the perception that such pricing models are likely to deliver innovation (total 60%) (see Fig. 4.21).

The Content of the Contract and Innovation: UK and Italy Compared

While the pricing model signals whether innovation can be accommodated, there are elements captured in the contract that may inhibit or promote innovation. We have examined five aspects, namely mandatory targets, measures for innovation, flexibility about delivery scopes, penalty schemes, flexibility regarding service costs and service quality, and their

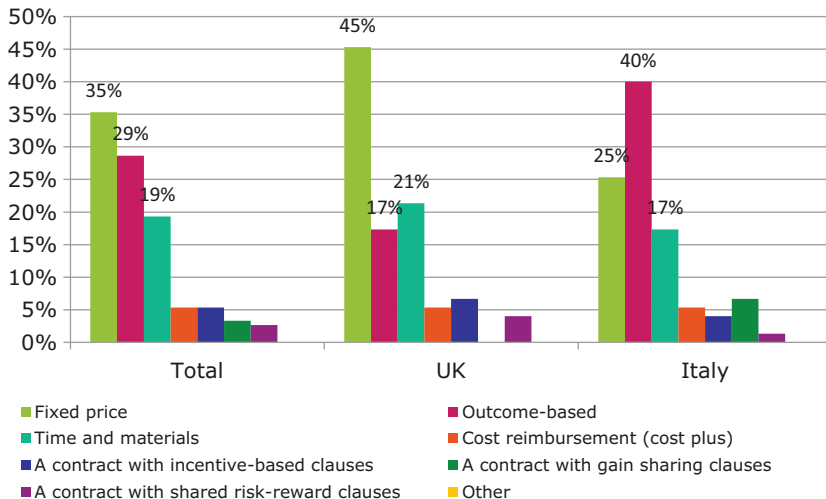


Fig. 4.20 Pricing model used to achieve innovation

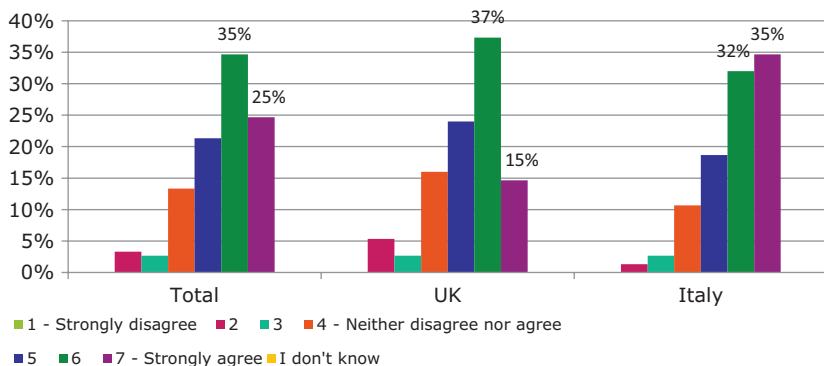


Fig. 4.21 Does a contract with gain-sharing clauses provide incentives for third-party suppliers to deliver innovation?

effect on innovation according to the views held by Italian and British executives. Our analysis (Fig. 4.22) shows that Italian executives supported penalty schemes (51% vs. 40%), flexibility in terms of service costs (57% vs. 43%), and preferred to focus on service quality rather than costs (64% vs. 50%), which in their opinion led to innovation.

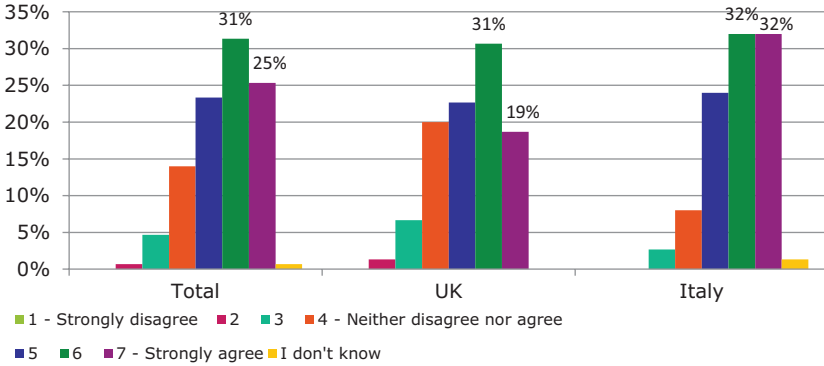


Fig. 4.22 Does the contractual agreement between the client and third-party supplier need to focus on service quality rather than costs?

Knowledge Exchange and Capabilities: The UK and Italy

Innovation is enabled by the innovator’s ability to understand the challenge, apply knowledge to search and develop solutions, tap into resources and capabilities in order to implement a solution, and measure the impact of the innovation. Firms that have outsourced functions may have lost specific domain knowledge that may hamper their innovation efforts. Therefore, it is imperative to understand the role that knowledge and capabilities play in supporting innovation in outsourcing.

In our study, 77% of the Italian executives agree or strongly agree that suppliers have had in-depth knowledge of the particular service where innovation was achieved as compared with 56% of their British counterparts. Similarly, 71% of Italian executives agree or strongly agree that suppliers understood processes relating to this particular service as compared with only 56% of the British executives. The most striking difference was found with regard to the statement that third-party suppliers understood processes relating to this particular service, where 73% of the Italians strongly supported it compared with only 43% of the British respondents (see Fig. 4.23).

While it is imperative for successful joint innovation projects that the supplier possesses domain and strategic knowledge about the client’s

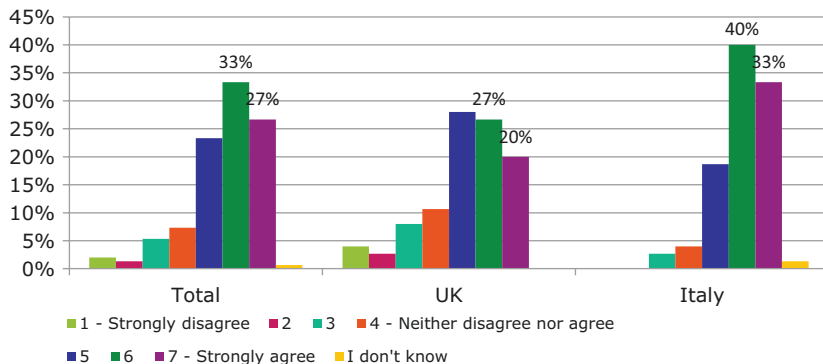


Fig. 4.23 Agree or disagree—‘The supplier understood the strategic roadmap of this particular service.’

systems and services, it is no less important that the client firm understands the supplier’s capabilities and its strategic goal. In our study, 76% of Italian executives agree or strongly agree that they possessed sufficient understanding of the supplier’s capabilities and understand the supplier’s strategic goal for this particular service (75%) compared with 52% and 56% of the British respondents respectively (see Fig. 4.24).

When examining the ongoing trend towards exchanging knowledge between the client and supplier, we found that 61% of Italian executives hold to the view that suppliers’ knowledge of their business challenge has either increased a lot or significantly increased in the last five years as compared with only 45% of their British counterparts (see Fig. 4.25). Further, 59% of Italian executives claim that their efforts to educate suppliers about business challenges have increased a lot or significantly increased as compared with only 33% of the British respondents. Last but not least, 64% of Italian respondents hold the view that in the last five years their ability to assess suppliers’ capabilities to innovation has increased a lot or significantly increased compared with only 33% of the British executives in this study.

To summarise, this study shows that the Italian outsourcing sector is expressing confidence in its ability to exchange knowledge between the client and supplier, educate the supplier about business challenges, and develop tools to assess the supplier’s ability to innovate. The British

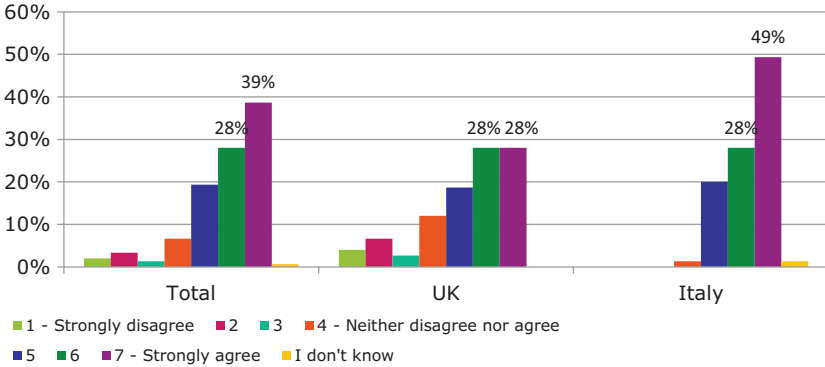


Fig. 4.24 Agree or disagree—'We understood the supplier's strategic goal for this particular service.'

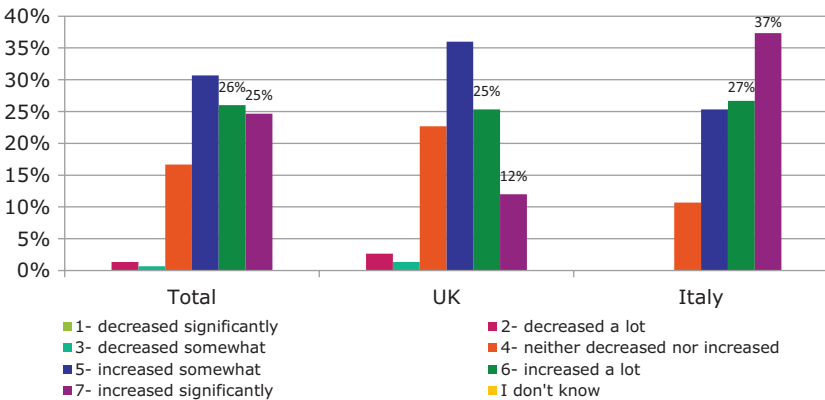


Fig. 4.25 Organisation's ability to assess the suppliers' capability over the last five years

outsourcing sector holds a positive view on these matters; however, it is far more reserved about its ability to exchange knowledge with its suppliers.

The Relational Aspect: The UK and Italy

Close collaboration between client and supplier is imperative for innovation through outsourcing. It is not easy to develop a collaborative mode,

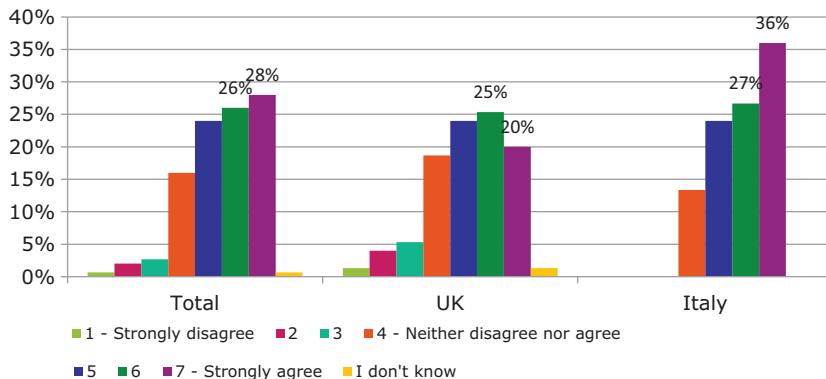


Fig. 4.26 Agree or disagree—‘We treated the key third party supplier employees like our own employees.’

as client firms often find it easier to resort to a transactional approach, in particular, when cost reduction is the primary objective. As we have seen in earlier chapters, a collaborative approach often means that the client and supplier need to align their goals and objectives, develop shared understanding, and continue to motivate each other to pursue innovation. There has to be a high degree of trust and open communication between the parties as well as high commitment to implement innovative ideas.

Our results show that both Italian (59%) and British (57%) executives agree or strongly agree that their suppliers are part of the team that works on innovation and hold a similar view about the level of trust between the parties (63% of Italian and 61% of British). However, when examining the way they collaborate with their suppliers, certain differences have emerged between Italian and British executives.

Sixty-four (64%) per cent of Italian executives reported that they either agree or strongly agree that they and the supplier work as one team in developing innovative solutions compared with 55% of British respondents (see Fig. 4.27). Further, 52% of the Italian executives (compared with 37% of their British counterparts) reported that supplier employees involved in innovative work were (at least temporarily) located at our organisation’s site. Co-location of employees is, in particular, critical for the joint development of innovative solutions, such as business solutions. Finally, 63% of Italian respondents expressed that they treated supplier

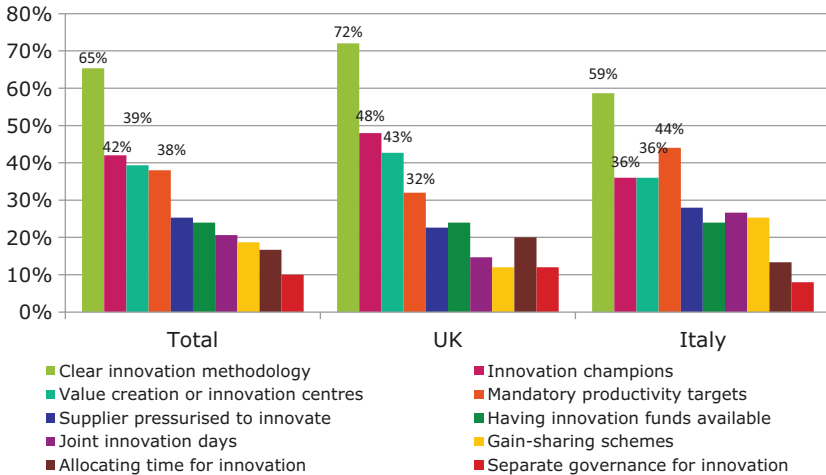


Fig. 4.27 The mechanisms leading to innovation

employees as their employees compared with only 45% of their British counterparts.

Innovation Mechanisms: The UK and Italy

Respondents were asked to rank the mechanisms that led to innovation in their projects (see Fig. 4.27). Our results show that British and Italian executives are in agreement that ‘clear innovation methodology’ is the most important mechanism, followed by ‘innovation champions’ (2nd for British, 3rd for Italians), and ‘value creation centres’ (3rd for Italians and 3rd for British). Italian respondents ranked ‘mandatory productivity targets’ as second in importance, giving this mechanism higher weight in driving innovation in their projects.

Conclusion

The two studies reveal many important insights about how innovation can and should be achieved. It confirms past observations that relational governance is imperative for innovation, but it also draws attention to

some very specific commercial models and incentives that result in successful innovation. The second study is unique in offering a comparison between Italian and British consumers of outsourcing services and highlighting the role of advisors in helping the client and supplier to design and pursue an innovation agenda. While not directly investigated, one should not underestimate the power of the organisational culture as a significant factor affecting innovation. The Italian sector has demonstrated traits of strong innovative culture, while the British sector was still focusing on transactional attitudes in its dealing with suppliers.

While this chapter advances understanding of the conditions for achieving innovation through outsourcing in various countries and organisations, there is still a need to find out how and under what conditions the various factors discussed here actually lead to successful innovation as well as expand the innovation categorisation to include more recent business models (e.g. licensing) and technological advancements (cloud, automation and artificial intelligence). For example, it is not clear how advisory improves innovation performance—an issue we address in Chap. 6. Is it by enhancing the client's knowledge or by facilitating the supplier's learning? Similarly, there is a need for more clarity about the effect of previous relationships between the client and supplier and successful innovation. We therefore encourage future studies to continue our line of enquiry and extend the scope and range of factors involved in innovation.

Notes

1. Based on a total of 120 responses from executives in large consumers of outsourcing services in Sweden, Denmark, Finland, and Iceland conducted late 2015.
2. All figures are provided up to decimal points.
3. Based on 150 responses from executives from consumers of outsourcing services in Italy and the UK.



5

Relational and Contractual Governance for Innovation

Ilan Oshri, Julia Kotlarsky, and Alexandra Gerbasi

Introduction

While the early years of Information Technology (IT) and business process outsourcing (BPO) were mainly characterized by a quest for cost savings (Loh and Venkatraman 1992; Lacity and Hirschheim 1993) and a focus on core competences (Quinn and Hilmer 1994), evidence from 2000 onwards suggests that client firms have been seeking added value from outsourcing by accessing suppliers' competences (e.g. Dyer and

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I. Oshri (✉)

Loughborough University, Loughborough, UK

J. Kotlarsky

Aston Business School, Aston University, Birmingham, UK

e-mail: j.kotlarsky@aston.ac.uk

A. Gerbasi

University of Exeter, Exeter, UK

e-mail: A.Gerbasi@exeter.ac.uk

Nobeoka 2000; Quinn 2000; Whitley and Willcocks 2011). Mol (2005) argued that “firms are increasingly relying on partnering relationships with outside suppliers that can act as an effective substitute to the internal generation of knowledge and innovation”. Similarly, Linder et al. (2003) and Weeks and Feeny (2008) argued that client firms rely on external suppliers in the search for new ideas. Accepting that innovation is outsourced and offshored, Lewin et al. (2009) studied the determinants driving firms to offshore innovations only to conclude that firms have been entering a global race for talent in which solutions will be sought wherever skills are available. Such observations suggest that innovation may be considered as one of the possible outcomes of outsourcing engagements.

Indeed, several studies have examined the practices through which innovation can be achieved in outsourcing settings (Weeks and Feeny 2008; Whitley and Willcocks 2011). Weeks and Feeny (2008) offer a typology of forms of *innovation through outsourcing* that distinguishes between IT operational and business process innovations, and strategic innovations (see also Chap. 2). The former corresponds with incremental forms of innovation (Dewar and Dutton 1986), while the latter matches the definition of radical innovation (Droege et al. 2009). Defined as ways to “significantly enhance the firm’s product or service offerings for existing target customers, or enable the firm to enter new markets” (Weeks and Feeny 2008: 131), strategic innovations have been traditionally perceived to be more challenging to achieve (Weeks and Feeny 2008) and therefore will be the focus of this study. Indeed, strategic innovation requires significant product or service development and its success can be challenged by lack of cooperation, low levels of trust and information asymmetry between the supplier and client (Weeks and Feeny 2008; see also Chap. 2). Similarly, the lack of appropriate incentives for both client and supplier may inhibit the sides from developing collaborative innovation through outsourcing (see also Chap. 3). Indeed, the limited literature on innovation in the outsourcing context has persistently highlighted the key role that relational governance plays in creating favourable conditions for strategic innovation through outsourcing (Lacity et al. 2016; Whitley and Willcocks 2011; Weeks and Feeny 2008).

We concur with such observations; however, we seek to advance and contribute to the Information Systems (IS) outsourcing literature by examining the role that relational and contractual governance plays in fostering strategic innovation through outsourcing. In particular, we seek to verify whether strong relationships between the client and the suppliers do lead to strategic innovation and whether certain contract types positively or negatively affect the impact of strong client-supplier relationships on the ability to achieve strategic innovation. *Relational governance* is examined in this study as the strength of the client and supplier relationships (Lacity et al. 2010), while *contractual governance* is explored through three contract types commonly used in outsourcing engagements: fixed-price, time and materials (Gopal et al. 2003; Gefen et al. 2008) and partnership-based (Willcocks and Choi 1995; Dibbern et al. 2004). This research relies on a pan-European cross-industry survey that included representatives of 118 firms that are buyers of IT and business process outsourcing services. Respondents were senior managers involved in the execution of outsourcing projects or programmes selected in accordance with the “key informant” methodology (e.g. Goo et al. 2008).

The contributions of this study are twofold. First, our chapter sheds further light on the link between a governance approach and strategic innovation through outsourcing. In this regard, our empirical results confirm a positive effect of the client-supplier relationships on the likelihood of achieving strategic innovation. Second, this study shows that the interaction of contractual governance with relational governance is not central to achieving strategic innovation through outsourcing. We found a weak though significant positive effect for the partnership contract on the positive effect of strong client-supplier relationships on strategic innovation but no effect for fixed-price and time and materials contracts.

The rest of the chapter is organized as follows: first, we review the literature on innovation in the context of strategic IT and BPO; then we theorize about the role of relational and contractual governance in achieving strategic innovation. This is followed by an explanation of methods and results. Then we discuss our findings in the light of the existing literature. The chapter concludes with theoretical and practical contributions.

Theoretical Background and Hypotheses

Strategic Innovation in the Context of Information Technology and Business Process Outsourcing

The outsourcing of IT and business processes has been recognized as one of the risk factors that may lead to the loss of innovative capabilities inside a client's firm (Weeks and Feeny 2008). Past studies, however, have persistently anticipated that outsourcing will deliver new ideas and value to both business operations and strategic objectives (Lacity and Hirschheim 1993; Lacity et al. 2010). Despite the above risk, innovation is one of the potential promises of outsourcing, however, one which is poorly understood. For example, studies in the IS outsourcing literature that talk about innovation refer to specific case examples or instances in which innovation has or has not been achieved (e.g. Quinn 2000; Levina and Vaast 2008; Weeks and Feeny 2008; Whitley and Willcocks 2011; Lacity and Willcocks 2013). Further, in the few studies in the IS outsourcing literature that have attempted to model innovations, this concept was perceived to be an independent variable (e.g. Kishore et al. 2004) rather than a possible outcome of an outsourcing project (Lacity et al. 2010).

The innovation literature distinguishes between various types of innovations. For example, numerous studies on innovation have adopted the concepts of incremental and radical innovations (e.g. Ettlie et al. 1984; Dewar and Dutton 1986; Malhotra et al. 2001) or exploitative and exploratory innovations (e.g. Jansen et al. 2006). In the IS literature, Weeks and Feeny (2008) offer a helpful typology of innovation that could be achieved through outsourcing. As we saw in Chap. 2, they distinguish between IT operational innovation, business process innovation and strategic innovation. Indeed, as in Chap. 2, many firms seeking innovation through outsourcing engagements have reported achieving IT operational and business process innovations (Weeks and Feeny 2008; Lacity and Willcocks 2013; Whitley and Willcocks 2011). Such innovations are achieved when the supplier introduces technology changes not impacting firm-specific business processes (IT operational)

or changes the way the business operates in some important way (business process) (Weeks and Feeny 2008: 131). However, these studies report that client firms struggle to achieve strategic innovation through outsourcing engagements. Lacity et al. (2010) confirm the emphasis on IT operational and business process innovations through outsourcing engagements by highlighting that the main drivers to outsource include improvements in processes and services (DiRomualdo and Gurbaxani 1998), achieving change (Linder 2004) and improvements of the delivery time (Khan and Fitzgerald 2004). Yet, more recent studies suggested that, while such improvements are desired in outsourcing engagements, client firms have moved on to seeking ways to benefit from transformative innovations that improve business performance with existing clients or enable the firm to enter new markets (Weeks and Feeny 2008; Whitley and Willcocks 2011). Lacity et al. (2010: 406) conclude that “truly strategic reasons for outsourcing IT have been relatively understudied”. Consequently, strategic innovation, which is one of the strategic challenges firms face in general (McDermott and O’Connor 2002), and in the context of outsourcing in particular, will be the focus of this study.

Examples of strategic supplier-led innovations include (1) the social media marketing platform that Infosys developed and implemented for Diageo¹ and (2) the supply chain system that IBM developed for Novartis in order to deliver anti-malaria medication to remote locations.² Such strategic innovations are not necessarily captured in the outsourcing contract, though they tend to emerge over time through the development of relationships between the client and the supplier in an ongoing outsourcing arrangement as well as through various contractual arrangements that incentivize the supplier to innovate for the client. As IS research weighs the contribution of either contractual or relational governance to outsourcing performance, several studies reveal that contractual governance in fact interacts with relational governance. For example, Goo and Huang (2008) found out that well-structured service-level agreements (SLAs) have a positive influence on the various aspects of relational governance in IT outsourcing engagements. Further, numerous studies supported opposing views debating whether relational governance and contractual governance act as complements or substitutes

(e.g. Poppo and Zenger 2002; Carson et al. 2006; Goo et al. 2009; Tiwana 2010). Inspired by this debate, a more recent study by Huber et al. (2013) demonstrated how relational and contractual governance act as complementary as well as substitution at different points during an outsourcing engagement.

The Role of Relational and Contractual Governance in Achieving Strategic Innovation

There is a general perception in the literature that strong client-supplier relationships improve outsourcing outcomes (Kishore et al. 2003; Whitley and Willcocks 2011). In this regard, client-supplier relationships represent the connections between staff from the supplier and client side that result in information and knowledge exchanges (Lee and Kim 1999; Kishore et al. 2003; Lacity et al. 2010). Jansen et al. (2006) explain that such connectedness concerns linkages between people and comprises a more voluntary mode of coordination than hierarchical structure. Client-supplier relationships are often manifested through the examination of the effectiveness of knowledge transfer (Tsai and Ghoshal 1998), the impact of cultural distance (e.g. Lee 2001; Rottman and Lacity 2006) and the degree of trust (e.g. Dibbern et al. 2008). In the specific context of strategic innovation through outsourcing, studies provided case-based evidence suggesting a positive link between strong client-supplier relationships and the likelihood of achieving strategic innovation. For example, Weeks and Feeny (2008) argue that the relationship between the client and supplier will become instrumental in building the supplier's business process design (the learning capability of the supplier) and client-industry knowledge (the supplier's pool of business solutions), both imperative capabilities for the supplier in its attempt to deliver strategic innovations for the client (Kern et al. 2002; Kishore et al. 2003; Koh et al. 2004; Moon et al. 2010). In this regard, we anticipate that strong relationships will assist the supplier in gaining knowledge about the client's business and improve the supplier's ability to offer the client strategic innovation. Thus, we hypothesize the following:

H1: There is a positive relationship between client-supplier relationships and the likelihood of achieving strategic innovation.

While today there are numerous contract types applied in IT and BPO contracts, the IS outsourcing literature has predominantly focused on exploring the relationships between time and materials and fixed-price contracts and various traits of outsourcing engagements (e.g. Gopal and Koka 2010, 2012). For example, Gopal and Koka (2010) argue that service quality in fixed-price contracts is higher than in time and materials contracts. From the supplier side, Gopal and Sivaramakrishnan (2008) argue that fixed-price contracts will be the suppliers' preference for larger and longer outsourcing projects that require large teams and a time and materials contract for scenarios in which there is a high risk of employee attrition. Gefen et al. (2008) posit that there is a strong connection between business familiarity and clients' tendency to prefer time and materials contracts. In other words, the deeper the suppliers' business familiarity with the clients' business, the more likely the client will choose to use a time and materials contract.

Fixed-price contracts bear a high risk for the supplier because any cost or schedule overruns will be borne by the supplier (Gopal and Koka 2012). Now consider the following example: a supplier is requested to develop a new supply chain system for their client to improve the delivery of anti-malaria medication in rural areas in Africa.³ While the supplier is likely to deploy its best resources and people to minimize the risk involved in a fixed-price contract (Gopal and Koka 2012), it will still be rather challenging for the supplier to account for all expected costs of the development effort upfront, as well as compute and include unforeseen technical and managerial challenges involved in developing and implementing this strategic innovation. It therefore flows from this scenario, that a fixed-price outsourcing contract that has scope for (or requirement of) delivering innovation is very likely to be *incomplete*, requiring the parties to *adjust* it whenever expectations or supplier's profitability have not been met (e.g. if a supplier is likely to endure significant additional efforts to deliver strategic innovations). A supplier may mitigate this risk of endangering its profitability if the parties agree to mutually adjust their obligations, expectations and interpretation of the fixed-price contractual term

in what Gopal and Koka (2012) coined “relational flexibility”. However, we posit that, unlike IT operational or business process innovations (Weeks and Feeny 2008) where there is limited uncertainty about the costs involved in implementing new technology or a new change programme, thus limiting the number of adjustments needed in a fixed-price contract if the supplier’s profitability is endangered, strategic innovation presents a different challenge in which the high degree of uncertainty (Dey et al. 2010; Dewar and Dutton 1986; McDermott and O’Connor 2002) may require a high number and rather frequent adjustments in the contract, suggesting a risk imbalance between the parties in favour of the client firm and therefore a potential opportunism by the client. Consequently, opportunistic behaviour on the client’s side in such a situation may erode the positive relational effect on the ability to achieve strategic innovation. Put simply, the use of a fixed-price contract in an outsourcing arrangement where strategic innovation is desired elevates the risk for the supplier, endangers its profitability and requires the parties to engage in ongoing adjustments in the contract, eventually negatively affecting the quality of their relationships. We therefore posit:

H2: Using a fixed-price contract will weaken the positive effect of the strength of client-supplier relationships on the likelihood of achieving strategic innovation.

Let us consider the same strategic innovation, that is, the development of a new supply chain system in the earlier example, but this time using a time and materials contract. Under a time and materials contract, the supplier’s risks are minimized as any personnel and materials costs incurred by the supplier will be charged to the client (Gopal and Koka 2010). However, as the development of the supply chain system under a time and materials contract does not pose a significant financial risk for the supplier, it is likely that the supplier will place their best resources and people on other projects where higher financial risk fixed-price contracts are used (Gopal and Koka 2012). Even if a client attempts to specify the skills of the supplier’s personnel required to work on delivering the strategic innovation initiative, such skills will be difficult to verify, and project staffing can always be manipulated by the supplier as the project

progresses (Gopal and Koka 2012), for instance, by moving highly qualified staff to higher risk projects. Consequently, we posit that there is a risk of exercising opportunism by the supplier that is likely to negatively affect outcomes of the strategic innovation project by staffing the project with less-qualified personnel (Krishnan et al. 2000), hence affecting the quality of the relationship between the parties. On the other hand, it is possible that a supplier engaged in the development of a supply chain system under a time and materials contract will seek opportunities to extend the initial scope of the project by accepting the client's requests for additional functionality (Bajari and Tadelis 2001), thus improving its project revenues (Gopal and Koka 2012). The materialization of such opportunity to extend the scope of the strategic innovation project will be subject to the client's satisfaction with the already delivered components in terms of time, cost and quality (Gopal and Koka 2012). Therefore, the supplier is likely to restrain the degree of opportunism exercised over the client, by staffing qualified personnel and being responsive to changes in the scope of the project, in order to increase the likelihood of greater revenues from the strategic innovation project, thus ensuring strong and positive relationships between the parties. We therefore hypothesize the following:

*H3: Using a time and materials contract will influence the effect of the strength of client-supplier relationships on the likelihood of achieving strategic innovation.*⁴

While time and materials and fixed-price contracts have been identified as central to outsourcing engagements (e.g. Gopal et al. 2003; Gopal and Sivaramakrishnan 2008), there has been growing evidence that client firms and suppliers set up partnership contracts in the form of joint ventures⁵ to address other business objectives. Such a partnership contract defines how client and supplier firms contribute resources to the new venture and how profits will be shared (Willcocks and Choi 1995; Banerjee and Dufflo 2000). Among the many drivers to form a joint venture in other contexts such as manufacturing, research has highlighted overcoming entry barriers into new markets, speeding up entry strategy to new markets and technologies, achieving economies of scale, managing risk sharing and getting access to complementary assets (tangible and

intangible) located outside the firms' boundaries (Kogut 1988; Koh and Venkatraman 1991). There has been little research about partnership or joint venture contracts in the context of IS outsourcing (e.g. Koh and Venkatraman 1991; Willcocks and Choi 1995). A study by DiRomualdo and Gurbaxani (1998) recommended client firms to pursue joint venture contracts with third parties with the purpose of commercializing IT assets developed initially for internal use. They argue that "sharing the costs and risks of commercialization with outsourcing partners can help maximize return on IT investments" (p. 76). Similarly, Lacity and Willcocks conclude their study by arguing that "among all the ways to incent innovation, gainsharing packs the most punch because it promises to increase the provider's revenue as well as the client's performance." It flows from these few IS outsourcing studies discussing partnership and gainsharing that the main objective of such a contract is twofold: firstly, to deflate the risk of opportunism either by the client or the supplier by placing them on similar grounds in terms of the risks that they take in contributing resources to the venture and secondly, to incentivize the parties to contribute towards a successful completion of the strategic innovation initiative by seeking to maximize their returns in terms of revenues for the supplier and service performance for the client. We therefore posit the following:

H4: Using a partnership contract (e.g. joint venture with profit sharing) will strengthen the positive effect of the strength of client-supplier relationships on the likelihood of achieving strategic innovation.

Our theoretical model that depicts hypotheses H1–H4 is outlined in Fig. 5.1.

Methods

Data Collection

We conducted a cross-industry survey of major European client firms from financial services, manufacturing, logistics, retail, utilities, telecom

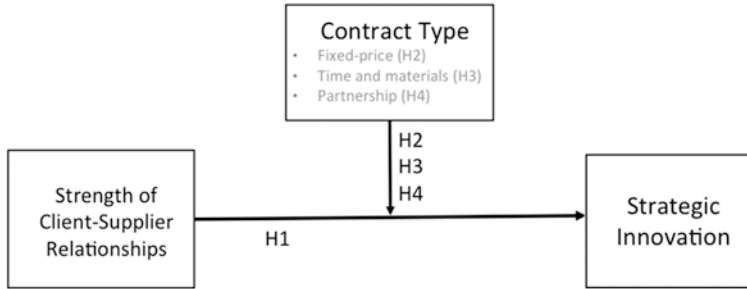


Fig. 5.1 Theoretical model

and other sectors. The data collection took place in late 2010. Senior managers at the client firms with extensive experience in outsourcing engagements for their firms were asked to respond to a survey regarding the relationships between their firm (unit of analysis) and their IT and BPO suppliers. This study applied a “key informant” methodology for data collection (Kumar et al. 1993; Segars and Grover 1998; Goo et al. 2008). To ensure that respondents were involved in major decisions regarding outsourcing in their organizations, and in the governance of outsourcing arrangements, a set of screening questions were included as part of the survey. Some of the dimensions examined in the screening questions were the role of the respondent within the firm, his or her involvement in outsourcing decision-making (unit, national, global and/or executive levels) and different types of contracts he or she managed. Over 2000 firms were initially contacted, and 248 fully completed the survey instrument, resulting in a response rate of 12.5%. Based on the data, there was not a significant difference between the demographic characteristics of firms that responded and those that did not. In order to avoid the potential confound of firms that used multiple types of contracts, we selected only those firms that reported using one contract type with their suppliers.⁶ This resulted in a dataset of 118 usable responses.

To minimize potential biases, the respondents were assured that their responses and identities would remain confidential and that only aggregate information would be published. A “don’t know” response category was added to each question to minimize the risk of obtaining inaccurate

responses from participants who did not know the answers to certain questions.

Overall the respondents represented a diversity of firms across multiple industries, regions, revenues and functions outsourced. In addition, those individuals who completed the survey for their firm tended to represent a high level of decision-making in the firm; over 85% represented their function at the global level. For a full description of the firms, please see Table 5.1.

Measurement

This study used previously validated scales from the literature, but since the scales were oriented towards intra-organizational processes, they were adapted to fit outsourcing arrangements. Appendix 1 provides the actual wording of the questions used in the survey.

Dependent Variable

Strategic Innovation Through Outsourcing⁷: we measured strategic innovation using the scale developed by Jansen et al. (2006) ($\alpha = .838$) (see Appendix 1 for the exact items). Answers to each item were anchored at 1 = strongly disagree and 5 = strongly agree. This scale is designed to measure the extent to which organizations pursued strategic (radical) innovations. We adapted this measure to incorporate strategic innovation with outsourcing partners rather than solely internal processes.

Independent Variable

The strength of client-supplier relationships ($\alpha = .813$) was measured using a five-item scale adapted from Jaworski and Kohli (1993) (see Appendix 1 for the exact items asked) in order to assess the respondents' perceived strength of the relationships between the firm and its suppliers. Each item was anchored between 1 = strongly disagree and 5 = strongly agree. The scale was developed to measure the extent to which employees

Table 5.1 Description of the sample

		Frequency	Percentage
<i>Description of the firms</i>			
Country	Benelux	13	11.02
	France	3	2.54
	Germany	10	8.47
	Nordics	9	7.63
	Switzerland	13	11.02
	United Kingdom	70	59.32
Firm revenue	US\$500 million–US\$1000 million	60	50.85
	US\$1000 million–US\$5000 million	34	28.81
	More than US\$5000 million	24	20.34
Firm sector	Banking	20	16.95
	Insurance	22	18.64
	Internet media	20	16.95
	Manufacturing	20	16.95
	Retail	17	14.41
	Telecommunications	19	16.10
What does the firm outsource ^a	Business processes	85	72.03
	IT Development	86	72.88
	IT Application maintenance	108	91.53
<i>Types of outsourcing contracts</i>			
Outsourcing contract	Fixed-price	102	86.44
	Time and materials	12	10.17
	Joint venture with profit sharing	4	3.39
<i>Description of the respondent</i>			
Decision-making authority of respondent ^a	I represent the function at the executive level	79	66.95
	I have global responsibility for the function	101	85.59
	I have national responsibility for the function	69	58.47
	I am responsible for the function of a business unit within the organization	79	66.95

^aThese items were not mutually exclusive; hence, the total is greater than 100%

were networked to various other levels of the hierarchy. This scale was used in other studies (e.g. Jansen et al. 2006). We have adapted the measure to include cross-boundary connections between the client and supplier firms.

The five items measuring the perceived strength of the client-supplier relationships, as well as the six items measuring strategic innovation, were put through factor analyses using Promax rotation and Kaiser normalization in order to evaluate the internal and discriminant validity of the variables. The results displayed in Table 5.2 show two distinct factors. One factor represents strategic innovation, and the other represents the perceived strength of the client-supplier relationships. Each of the obtained variables reflects the average of the mean item values.

Moderating Variables

Type of contract: in order to test how different contractual arrangements influence the likelihood of achieving strategic innovation, we included three major types of contracts discussed in the literature that client organizations used with their outsourcing suppliers. Respondents were asked to indicate of the following contracts which type they have used in their outsourcing engagement: fixed-price (this included fixed fee for specified service and ticket-based contracts), time and materials or joint venture with profit sharing. Of the types of contracts used, 87% were fixed-price, 10% were time and materials and 3% were joint ventures with profit sharing (as depicted in Table 5.3).

Control Variables

In the empirical study, we controlled for possible confounding effects by including various relevant control variables.⁸ Three types of outsourcing arrangements were considered: business processes, IT development and IT application maintenance.⁹ Of the types of outsourcing used, 72% of the respondents indicated they outsourced business processes, 73% outsourced IT development and 92% indicated that they outsourced IT application maintenance. Table 5.3 includes the means, standard deviations and correlations of all variables.

Table 5.2 Factor analysis of components in analysis

Items	Cronbach's alphas	Pattern matrix	% of total variance explained
We have invented new products and/or services working with third parties.	0.838	0.679	39.32
We experiment with new products and services in our existing market through work with third parties.		0.722	
Our organization accepts demands from clients that go beyond existing products and services.		0.716	
We commercialize products and services that are completely new to our organization through work with third parties.		0.749	
We frequently utilize new opportunities in new markets through work with third parties.		0.851	
Our organization is exploring opportunities to use new distribution channels to deliver products and services through work with third parties.		0.688	
In our organization, there is ample opportunity for informal conversation among our staff and third-party employees that are based on our premises.	0.813	0.704	17.16
In our organization, our employees and third-party staff feel comfortable approaching each other when the need arises.		0.752	
Managers discourage employees discussing work-related matters with those who are not immediate superiors.**		0.634	
People involved in the outsourcing relationship are quite accessible to each other (regardless of whether they represent client or supplier side).		0.823	

(continued)

Table 5.2 (continued)

Items	Cronbach's alphas	Pattern matrix	% of total variance explained
In our outsourcing organization, it is easy to talk with virtually anyone you need to, regardless of rank, position or organization to which he/she belongs.		0.907	

Notes: $n = 118$; ** Reversed item

All items were measured on a five-point scale, anchored by 1, strongly disagree and 5, strongly agree

Extraction Method: Principal Component Analysis

Rotation Method: Promax with Kaiser Normalization

Rotation converged in 11 iterations

Scores under .37 are not displayed

Common Methods Variance

In order to test for common methods variance (CMV), we conducted Harman's single-factor test (Podsakoff et al. 2003). Our results did not indicate common methods bias was high as more than one factor emerged to explain the variance in our analysis. In addition, no one factor accounted for the majority of covariance among the measures, meeting both of the criteria set forth by Podsakoff et al. (2003) for determining if a detrimental level of common method bias exists. We also conducted a second test to examine a control for the effects of an unmeasured latent-method factor. In this test, only three of the paths from CMV to single-indicator constructs were significant, indicating a small amount of CMV.

Analysis and Results

After assessing measurement properties and CMV, we tested our hypotheses regarding the effects of the strength of the client-supplier relationships on strategic innovation by estimating a series of hierarchical ordinary least squares linear regressions. Table 5.4 presents the results from these regressions. Model 1 includes just the control

Table 5.3 Means, standard deviations and correlations

	Mean	Std. Dev.	1	2	3	4	5	6	7	8
1. Strategic innovation	3.27	0.86	1							
2. Business processes	0.71	0.46	-0.02	1						
3. IT development	0.73	0.45	0.11	-0.39**	1					
4. IT application maintenance	0.91	0.29	0.18	0.12	-0.20*	1				
5. Strength of client-supplier relationships	3.38	0.85	0.44**	0.03	0.20*	0.01	1			
6. Time and materials	0.10	0.30	0.14	-0.09	0.14	0.01	0.04	-		
7. Fixed-price	0.87	0.33	-0.14	0.04	-0.17	-0.03	-0.09	-0.88**	1	
8. Joint venture with profit sharing	0.03	0.16	0.01	0.10	0.10	0.05	0.12	-0.05	-0.42**	1

Note: $n = 118$. * $p < .05$, ** $p < .01$

The value for the means for dichotomous variables represents the percentage of the sample in that category

Table 5.4 Hierarchical OLS linear regression predicting strategic innovation

	Model 1		Model 2		Model 3		Model 4	
	B	Std. error	B	Std. error	B	Std. error	B	Std. error
Business processes	0.07	0.18	-0.03	0.17	-0.01	0.17	0.01	0.17
IT development	0.30	0.19	0.09	0.18	0.08	0.18	0.09	0.18
IT application maintenance	0.62*	0.27	0.57*	0.25	0.56*	0.25	0.54*	0.24
Strength of client-supplier relationships			0.41**	0.09	0.42**	0.09	0.42**	0.09
Time and materials ^a					0.33	0.23	-0.87	1.19
Joint venture with profit sharing ^a					-0.24	0.45	-0.18	0.21
Time and materials X strength of client-supplier relationships							0.35	0.33
Joint venture X strength of the client-supplier relationships							1.08*	0.31
Intercept	2.45	0.35	1.31	0.40	1.28	0.40	1.28	0.40
R^2	0.06		0.22		0.23		0.29	
ΔR^2			0.16		0.02		0.06	

Note: $n = 118$. * $p < .05$, ** $p < .01$

^aFixed price is the reference category for the regressions and will be omitted from the regressions

variables. Model 2 adds the effect of the strength of the client-supplier relationships. Model 3 adds the direct effects for the moderating variables. Finally Model 4 adds the interaction effects between the strength of the client-supplier relationships and the type of contract used in the relationships. To estimate these effects we used the PROCESS macro for SPSS (Hayes 2013) and tested the effects for statistical significance using 95% bootstrapped confidence intervals based on 1000 samples to reduce bias (Hayes 2013).

In Model 1, we saw the effects of the control variables. There was not a significant effect for outsourcing business processes on strategic innovation. There was also not a significant effect for outsourcing IT development on strategic innovation. There was a positive and significant effect for outsourcing IT application maintenance ($B = .62, p < .05$) on strategic innovation. Those firms that indicated they outsourced IT application maintenance reported higher levels of strategic innovation with their outsourcing partner.

In Model 2, we added the effect of the strength of the client-supplier relationships to Model 1. The effects for the control variables remained consistent: there was a positive and significant effect of the strength of the client-supplier relationships on strategic innovation ($B = .41, p < .01$), supporting hypothesis 1. This suggested that the stronger the relationships between the client firm and their suppliers, the more likely they are to achieve strategic innovation.

In Model 4, we tested the proposed moderation effects in hypotheses 2–4, which argue that the type of contract used will moderate the effect of the strength of client-supplier relationships on strategic innovation. In order to test the moderation effects, we estimated a “main effect” model (Model 3) with a moderating effect model (Model 4) (Carte and Russell 2003) and meeting nine conditions that no errors have been made. Our analysis concluded that no errors of commission were made. The interaction terms were calculated by multiplying the moderator (type of contract) by the predictor variable (strength of client-supplier relationships). The moderating effects model included these variables, but the main effect model did not. The effects for the moderation of fixed-price contracts and time and materials contracts on the influence of the strength of the client-supplier relationships on strategic innovation were not significant. Thus, hypothesis 2 which argued that a fixed-price contract will reduce the effect of the strength of the client-supplier relationships on strategic innovation was not supported. In addition, hypothesis 3, which argued that time and materials contracts should influence the effect of the strength of the client-supplier relationships on strategic innovation, was also not supported. In the end, we tested for the effect of the interaction of the joint venture with profit-sharing contract and the strength of the client-supplier relationships. We had a positive and

significant effect of the moderation term ($B = 1.08, p < .05$),¹⁰ supporting hypothesis 4 which argued that the effect of the strength of the client-supplier relationships is stronger on strategic innovation when joint venture with profit-sharing contracts are used. The R^2 of the main effect model is .23, and the R^2 for the moderation model is .29. The increase in R^2 due to the addition of the interaction of using a joint venture with profit-sharing contract and the strength of the client-supplier relationships is statistically significant. In order to further test the robustness of this result, we calculated the effect size formula suggested by Cohen (1988): $F^2 = [R^2 (\text{moderation model}) - R^2 (\text{main effect model})] / [1 - R^2 (\text{main effect model})]$. We obtained an effect size F^2 of 0.08. Then, we multiplied F^2 by $(n - k - 1)$, where n equals sample size, and k equals the number of independent variables. This enabled us to conduct a pseudo F -test for the change in R^2 with 1 and $n - k$ degrees of freedom (Mathieson et al. 2001). The result of the pseudo F -test was 8.64 ($p < .05$). Based on the values provided by Cohen (1988), an effect size of 0.02 is small, 0.15 is moderate and 0.35 is large; therefore, we can conclude that the effect size for a joint venture with profit-sharing contract was small, yet significant.¹¹

Discussion and Contributions

In this study, we sought to examine the effect of relational and contractual governance on the ability to achieve strategic supplier-led innovation through outsourcing. We were motivated by several IS outsourcing studies that discussed innovation as a possible outcome of an outsourcing engagement and suggested that a strong relational governance may indeed improve opportunities to achieve strategic supplier-led innovation. While such studies supported their arguments relying on empirical evidence in the form of case studies of innovations that go beyond operational and business process improvements and address strategic challenges (Weeks and Feeny 2008; Whitley and Willcocks 2011), our study aimed to model and test the effect of relational and contractual governance on likelihood of achieving strategic innovation.

The results of this study have confirmed that strong client-supplier relationships positively affect the ability to achieve strategic innovation through outsourcing engagements. In this regard, client-supplier relationship facilitates the supplier's ability to learn about the client's business (Zaheer and Venkatraman 1995; Kishore et al. 2003), thus assisting in developing solutions that go beyond IT operational or business process innovation to affect services delivered to existing clients or even developing new markets (Weeks and Feeny 2008), similar to the earlier example we provided about IBM engaging in strategic innovation for Novartis. Further, strong client-supplier relationships provide advantages to the parties by mitigating risk for the risk-exposed party through the use of relational flexibility that promotes adjustments in the contract to meet expectations of all parties (Gopal and Koka 2012).

Further, motivated by extant literature that discusses complementarity between relational and contractual governance in improving outsourcing performance (e.g. Huber et al. 2013), we modelled and tested the interaction between contractual and relational governance as affecting strategic supplier-led innovation. In particular, we have considered the effect of various contract types on the strength of client-supplier relationships. Specifically, our study suggests that the positive effect of strong client-supplier relationships on the ability to achieve strategic innovation is magnified when managers use a joint venture contract with profit sharing, with the caveat that our results suggest that such an effect is weak though significant. On the other hand, fixed-price and time and materials contracts do not magnify or weaken the positive effect of strong relationships on the ability to achieve strategic innovation through outsourcing. Our results do not fully support an earlier assertion that contractual and relational governance can be complementary (Saunders et al. 1997; Gopal and Koka 2012); however, they do hint at the possibility that under certain conditions, such as a joint venture gain-sharing contract, the contractual governance may further improve the benefits of relational governance. Indeed, contracts with partnership clauses such as gain-sharing or cost-saving sharing schemes strengthen the positive effect of strong relationships on the ability to achieve strategic innovation because both parties face

similar risk as they contribute resources and people to the venture, thus weakening the materialization of opportunism for one of the sides. Such partnership schemes also stimulate motivation for collaboration as the potential return from the investment can be materialized only if the venture is successful. This explanation is in line with the assertion that strategic and radical innovations are likely to be found in inter-organizational relationships and networks where firms seek access to resources and capabilities that cannot be found internally (Dewar and Dutton 1986; Henderson and Clark 1990), also known as complementary assets (Tece 1986). For example, inter-organizational networks can facilitate the development of the joint research capability required for strategic innovation, which is greater than the research capability that the client firm can develop on its own (Powell 1996; Hoecht and Trott 2006). A joint research capability may still lead to a continuous bargaining process between the client and supplier about the appropriation of the value created (Mol 2005); however, the presence of a contractual mechanism in the form of a gain-sharing scheme is likely to increase transparency regarding commitment and profit sharing involved in such setting.

There are two sets of results in this study that require further explanation: (1) the unsupported assumptions regarding the effect of fixed-price and time and materials contracts on relational governance and (2) the unexpected positive effect of IT application maintenance on strategic innovation.

Indeed, other studies suggested that in fixed-price contracts the supplier is exposed to the risk of not meeting its profitability targets if the task at hand is undefined, in particular as suppliers tend to deploy highly qualified personnel in fixed-price contracts (Gopal and Sivaramakrishnan 2008; Gopal and Koka 2010). Mitigating this risk should have been through the use of relational flexibility in which the supplier would have proposed ongoing adjustments in the contract; however, this would be at the risk of negatively affecting the quality of the relationship with the client (Gopal and Koka 2012). Time and materials contracts may have resulted in unsatisfactory quality as a result of the supplier staffing the project with less-qualified personnel, thus exercising opportunism over the client. At the same time, the

supplier is likely to exploit the opportunity to increase revenue through the engagement in strategic innovation and therefore is likely to refrain from opportunistic behaviour. As our results did not support either of these behaviours, we may consider the following alternative explanations. In the first alternative explanation, we argue that since our survey involved large firms engaging in large outsourcing contracts often over many years, it is possible that the parties have developed strong relational flexibility that allows them to cope with ongoing adjustments to a fixed-price contract despite the higher uncertainty involved. In the second alternative explanation, we posit that the supplier may perceive some of the risks as opportunities to further engage in product and service development projects for the client, which would translate into future business opportunities. As a result, the supplier will focus on other outcomes that go beyond improving the client's business performance, responding to the client's emerging issues. In such a case, the supplier is likely to demonstrate "goodwill" in resolving unforeseen or unaccounted for activities.

We also found that there was not a significant effect of business process and IT development outsourcing on strategic innovation; however, we discovered a significant effect of application maintenance on strategic innovation. These are surprising results as the literature suggests that innovation is one driver for BPO (Mani et al. 2010) and strategic innovation can be the outcome of IT development in the form of a new service for existing clients (Weeks and Feeny 2008). Application maintenance is perceived as a routine work that ensures the functionality of legacy business applications. Occasionally, changes will be needed in legacy applications to ensure their support of changing business conditions. However, evidence suggests that client firms perceive the suppliers' ability to implement such changes to be superior to the client's ability (Kotlarsky et al. 2014). At the same time, such updates in legacy systems have the tendency to be more profound as most legacy systems are not designed to have the flexibility needed to accommodate solutions that address contemporary business conditions.¹² It is in fact the client's quest for complementary assets from the supplier when outsourcing application maintenance. We therefore infer from the above explanation that under

certain conditions application maintenance may have a significant effect on strategic innovation.

Theoretical Implications

Our study extends other studies examining the effect of relational and contractual governance on outsourcing performance in two ways. First, results of our study suggest that outsourcing outcomes (typically viewed as business and process performance improvements) could include strategic innovation, which open possibilities for future studies to model and measure strategic innovation as part of outsourcing performance. Second, our study reveals that client-supplier relationships play a major role in facilitating strategic innovation through outsourcing. While research has argued that relational governance and contractual governance act as complements rather than substitutes (Kishore et al. 2003; Koh et al. 2004; Moon et al. 2010), our analysis suggests that such interactions between these two governance approaches are likely to happen in the case of strategic innovation under certain conditions such as when partnership contracts are in use and less likely to happen in the case of fixed-price and time and materials contracts (Gopal and Koka 2012).

Practical Implications

There are some practical implications that surface from this study. Our study supports observations in other studies that client firms seeking strategic innovation through outsourcing should first and foremost invest in relational governance. Indeed, useful practices for innovation through outsourcing have been widely reported by Lacity and Willcocks which include leadership pairs from client and supplier, trust building steps and modes of operation that support collaboration and openness. Managers should also consider the type of contracting when seeking strategic innovation (see also Chap. 3). While our analysis shows that only 3% of our sample is accustomed to using joint venture contracts and 87% of the firms in our sample use fixed-price contracts, there is now

growing evidence that clients and suppliers use contracts with gain-sharing clauses as a way to incentivize parties to engage in high-risk strategic innovation initiatives. Last but not least, managers need to consider strategic innovation through outsourcing at the outset of contracting, that is, as part of the strategic intent of the outsourcing act (Whitley and Willcocks 2011). Indeed, a study by Leimeister et al. (2008) shows variation in behaviours between firms that seek and those that do not seek innovation from their IT outsourcing engagements, highlighting the importance of strategic intent as the first step in pursuing innovation through outsourcing.

Limitations and Future Research

Finally, the analysis presented in this chapter is subject to several limitations. First, we have used three types of contracts which are not necessarily representing the complete range of contracts applied by firms in their outsourcing engagements. Future research should consider extending the range of contracts used in outsourcing engagements such as outcome-based contracts. Second, our sample is biased towards the European perception of strategic innovation through outsourcing which can be affected by the relative immaturity level of the European outsourcing market as compared with the US market. We see an opportunity to conduct a similar study in the context of the US outsourcing industry to compare with the results of this study. Third, DiRomualdo and Gurbaxani (1998) found that clients need to match the type of ITO decision (business improvement, IS improvement or commercialization) with the right kind of contract. Our study did not consider the strategic intent of the client firm as our intention was to test senior managers' general perceptions regarding the link between outsourcing and strategic innovation. Future research can refine our results by including the strategic intent as a variable affecting the type of contract selected for outsourcing. Last but not least, we need to acknowledge that our sample has a very small group of firms that use the joint venture with profit-sharing contract. We have attempted to ensure that these four firms are not outliers by comparing their descriptive statistics

to that of the other firms in the sample and confirmed that the firms in this category do not appear to be significantly different. Since the implications of our findings that derive from this small group of firms that use the joint venture with profit-sharing contract present an important contribution to the IS outsourcing literature, we suggest that the effect of this contract type (and others) on the strength of client-supplier relationship is examined in future research.

Conclusion

This chapter has sought to advance our understanding of the role that relational and contractual governance plays in achieving strategic innovation through outsourcing. We hypothesized and tested empirically the relationship between the strength of client-supplier relationships and the likelihood of achieving strategic innovation, and the interaction effect of different contract types, such as fixed-price, time and materials and partnership. Results from a pan-European survey of 118 large firms suggest that strong relationships between client and suppliers may indeed help achieve strategic innovation through outsourcing. However, within the spectrum of various outsourcing contracts, only the partnership contract presents a weak though significant positive effect on relational governance and is likely to strengthen the positive effect of the client-supplier relationships on strategic innovation.

Appendix 1: Measures and Items

The following text was included in the beginning of the questionnaire: “In this research questionnaire we are going to ask you about the outsourcing of IT and business processes to third-party providers. By outsourcing we mean business process outsourcing and technology outsourcing as opposed to facilities and service management.”

Strategic Innovation*

Based on Jansen et al. (2006)

We have invented new products and/or services working with third parties.

We experiment with new products and services in our existing market through work with third parties.

Our organization accepts demands from clients that go beyond existing products and services.

We commercialize products and services that are completely new to our organization through work with third parties.

We frequently utilize new opportunities in new markets through work with third parties.

Our organization is exploring opportunities to use new distribution channels to deliver products and services through work with third parties.

Client-Supplier Relationships

Based on Jaworski and Kohli (1993)

In our organization, there is ample opportunity for informal conversation among our staff and third-party employees that are based on our premises.

In our organization, our employees and third-party staff feel comfortable approaching each other when the need arises.

Managers discourage employees discussing work-related matters with those who are not immediate superiors.**

People involved in the outsourcing relationship are quite accessible to each other (regardless of whether they represent client or supplier side).

In our outsourcing organization, it is easy to talk with virtually anyone you need to, regardless of rank, position or organization to which he/she belongs.

*All items were measured on a five-point scale, anchored by 1 = strongly disagree and 5 = strongly agree.

** Reversed item.

Notes

1. Infosys developed and implemented a marketing platform for Diageo (a global premium drinks company) that enabled Diageo to centrally manage brands through multiple social media channels, such as Facebook, Twitter and others (radical innovation in Diageo's marketing and brand management approaches, their core growth strategy). See press release: <http://www.infosys.com/industries/consumer-packaged-goods/case-studies/Pages/new-digital-consumer-connections.aspx>
2. See press release: <http://www-03.ibm.com/press/us/en/pressrelease/29022.wss>
3. Pointer to the IBM story mentioned earlier.
4. We have formulated this hypothesis as non-directional, as based on the literature we may expect either positive or negative effects on the strength of client-supplier relationships.
5. *Joint venture contract* is a partnership type of contract that defines how client and supplier firms contribute resources to the new venture and states how profits will be shared. The partners outline the mission and objectives for the joint venture, including the provision of funding, initial physical assets, intellectual capital, staff members and management capabilities. We use terms *partnership* and *joint venture (with profit sharing)* interchangeably throughout the paper referring to the same type of contract.
6. Respondents had the opportunity to indicate that they used multiple contract types, but we excluded those responses, as they would not allow us to test clearly the effect of contract type on strategic innovation on the firm level.
7. Since there is very limited literature on strategic innovation in the context of IT and BPO, there were no previous studies that used an operational measure of strategic innovation through outsourcing in IS literature. Comparing how Weeks and Feeny (2008) define strategic innovation (included earlier in the chapter) with the established definitions from the innovation literature where *radical/exploratory innovations* are considered to result in new products and/or service lines (Droege

et al. 2009) entering new markets (Berry et al. 2006) or introducing new distribution channels (Jansen et al. 2006), we have concluded that “strategic innovation” in the IS outsourcing context is in line with what is viewed as radical or exploratory innovations. Therefore, the existing measure of exploratory innovation was adopted.

8. We attempted additional controls including industry, country and size of the company, but none of them had a significant effect on the outcomes; in order to avoid over-saturating the regression model, we do not include them in further analysis.
9. In line with IS outsourcing literature, we have distinguished between IT and BPO (Mani et al. 2010). IT outsourcing (ITO) is defined as the sourcing of IT services through an external third party. BPO refers to the delegation of one or more IT-enabled business processes to an external service provider (Mani et al. 2010: 39). While ITO and BPO share many common attributes, such as the reliance on IT solutions, there are some important differences between these two forms that have implications for the present study. From a client perspective, the main drivers of ITO are the ability to focus on core competencies of the firm and achieve reduction in costs. BPO, on the other hand, offers numerous objectives ranging from cost reductions to innovation and business transformation (Mani et al. 2010). It flows from this that client firms expect innovation to be delivered in the case of BPO. At the same time, ITO consists of at least two different components: IT development and application maintenance (e.g. Gopal and Sivaramakrishnan 2008; Gopal et al. 2003). IT development implies opportunities to innovate while application maintenance is traditionally perceived as less prone for innovation.
10. Work by Bedeian and Mossholder suggests that a theoretically important and statistically significant prediction are the two most important factors of an interaction effect in a moderation model.
11. In order to address that this effect may be because the firms that used joint venture contracts are outliers or very different to the other firms in the sample, we conducted a series of chi-square tests to analyse whether the patterns we see in the descriptive statistics differ significantly between the groups. We did not find evidence to suggest the firms that engaged in joint venture contracts differed from those that used either fixed-price or time and materials contracts.
12. We thank the anonymous reviewer for helpful suggestions regarding interpreting these results.

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6

Innovation: Where Do Consultants Fit In?

Ilan Oshri, Daria Arkhipova, and Giovanni Vaia

Introduction

Mitigating risks and achieving collaboration between clients and suppliers have been extensively discussed in the Information Systems (IS) outsourcing literature (e.g. Gopal and Koka 2012). A major concern identified by the extant literature is information and knowledge asymmetries that may result in opportunistic behavior by either side. Indeed, while such concerns have mainly been examined vis-à-vis contract choices (Gefen et al. 2008; Gopal and Sivaramakrishnan 2008), the implications of these studies have relevance for the study of innovation through outsourcing (Weeks and Feeny 2008).

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I. Oshri (✉)

Loughborough University, Loughborough, UK

D. Arkhipova • G. Vaia

Ca' Foscari University, Venice, Italy

e-mail: daria.arkhipova@unive.it; g.vaia@unive.it

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Recent years have witnessed growing interest in understanding innovation through outsourcing engagements (Weeks and Feeny 2008; Lacity and Willcocks 2013; Oshri et al. 2015; Su et al. 2016). Early studies have mainly focused on understanding how innovation through outsourcing emerges over time (Weeks and Feeny 2008; Whitley and Willcocks 2011), while more recent studies have examined the effect of relational and contractual governance on the ability to achieve strategic innovation within outsourcing settings—see Chap. 5. The limited though important extant literature has indeed suggested that one potential challenge for innovation through outsourcing is information and knowledge asymmetry between the parties (Weeks and Feeny 2008; Lacity and Willcocks 2013). Put simply, innovation through outsourcing is likely to be hampered should client and suppliers have limited knowledge of each other. To mitigate this risk, clients and suppliers can consider two possible strategies. One strategy is to enhance familiarity between the client and the supplier (Gefen et al. 2008). Another strategy is to employ advisory as an intermediary party that bridges gaps between the parties (Mahnke et al. 2008).

In the context of innovation through outsourcing, familiarity between clients and suppliers cannot be understood as the amount spent on contracts with a supplier (Gefen et al. 2008). Innovation is a fairly new phenomenon in the outsourcing context as well as tends so far to be a one-off venture between the parties. Consequently, we define and examine familiarity along three dimensions that have been identified as relevant for innovation through outsourcing, namely client's familiarity of the supplier (C-S knowledge familiarity), supplier's familiarity of the client (S-C knowledge familiarity) and the relational dimension (relational familiarity). We theorize that greater familiarity (S-C, C-S and relational) improves innovation performance within outsourcing engagements.

The use of advisory is likely to provide additional support to mitigate information and knowledge asymmetries (Mahnke et al. 2008). More specifically, Bapna et al. (2016) illustrate the positive effect of advisory in mitigating information asymmetry, thus contributing to a collaborative mode and better outsourcing outcomes. In-line with such observations and as a response to a call to further understand the role of advisory in

outsourcing settings (Lacity et al. 2016), we attribute positive effect on innovation performance where advisory is included.

The research relies on 147 responses of key informants (Goo et al. 2008) from Italian and British firms that have achieved innovation through outsourcing engagements. Results suggest that relational familiarity positively affects innovation performance. Against our assumption, supplier-client familiarity does not directly affect innovation performance. Instead, it is mediated by the effect of client-supplier familiarity. Last but not least, advisory does not have a direct effect on innovation performance. Instead, it is positively moderating the effect of supplier-client familiarity on innovation performance.

This chapter offers three key contributions to the IS outsourcing literature. First, we have redefined the notion of familiarity (Gefen et al. 2008) to suit the context of innovation through outsourcing by offering three key dimensions (S-C, C-S and relational) that are likely to be relevant for the innovation context. Second, we discover that against past studies that attributed greater importance to supplier's familiarity with the client as a *precondition* for the collaborative mode, our study shows that supplier-client familiarity positively affects innovation performance. Last but not least, our chapter is among the first to examine the role of advisory in the context of innovation through outsourcing. Surprisingly, the presence of advisory does not in itself affect innovation performance. Instead, it positively moderates the effect of supplier-client familiarity on innovation performance. The chapter concludes by offering implications for theory and practice.

Innovation, Outsourcing and Information Asymmetries

The study of outsourcing has consistently emphasized information asymmetries between the client firm and the supplier (Bapna et al. 2016). Information asymmetries can emerge because suppliers have limited information about their clients' service roadmap, while client firms might not have complete understanding of their supplier's capabilities (Bapna

et al. 2016). Such asymmetries have been viewed as hindering collaboration between client and supplier as they escalate opportunistic behavior by either the client or the supplier. Further, knowledge asymmetries may lead to poor collaboration between the client firm and the supplier, thus hindering the exchange of knowledge and the development of a collaborative regime within the engagement.

As earlier chapters discuss, one area that has gained growing attention in the IS outsourcing literature is the likelihood of client firms to achieve innovation through outsourcing. As we have found, Weeks and Feeny (2008) have offered a useful categorization of such innovation, in which they distinguished between IT operational, business process and strategic innovation. But Weeks and Feeny (2008) also claim that one major concern is the client firm's difficulty to engage in a knowledge exchange with the supplier following the outsourcing of the service. Suppliers, on the other hand, may shy away from collaborating on innovation activities within the outsourcing setting should such activities challenge their attempt to safeguard margins (Tadelis 2007). As such, knowledge asymmetries are likely to manifest themselves as a relational governance problem that hinders collaboration between the parties simply because either the information gap is too wide to allow collaboration or the parties are inclined to collaborate as a risk mitigation strategy.

Two streams of studies have offered remedies to these challenges. The first stream of research in the IS outsourcing literature has considered strengthening the relational governance between the client and the supplier to mitigate opportunistic behavior. For example, in Chap. 2, Whitley and Willcocks proposed collaborative innovation as a way to move from the management of relationships to building high levels of trust that is likely to lead to innovations in an outsourcing setting. Further, they highlighted the importance of incentivizing the client and supplier to share knowledge and engage in risk taking. Lacity and Willcocks in Chap. 3 echoed such observations suggesting that innovation in outsourcing is achieved as a result of exchanges between leadership pairs from the client and the supplier side. In particular, chapter 3 highlights the importance of collaborative culture by both client and the supplier teams. In Chaps. 4 and 5, Ilan Oshri and colleagues found that strategic innovation is likely to be delivered by a supplier when the quality of the client-supplier

relationships is high and certain commercial models such as joint venture are applied to mitigate opportunistic behavior by either side. Su et al. (2016) describe how Toyota Motor North America shared technologies and data architecture with its suppliers to ensure that suppliers are familiar with its architectural requirements as they innovate for Toyota. Su et al. (2016: 5) conclude that “[...] close ties between the client company and its key partners enable and motivate these partners to develop knowledge and processes specific to the client so as to deliver greater value.” This stream of studies has indeed highlighted the importance of *familiarity* (Weeks and Feeny 2008; Su et al. 2016) between the client and supplier as mitigating collaboration hazards.

Another stream of studies has considered the role of *advisory* in reducing information asymmetries between the client and supplier (Lacity et al. 2016; Bapna et al. 2016; Mahnke et al. 2008). Advisory are third-party consultancies such as KPMG and Ernst and Young that usually act on behalf of the client firm, providing various types of information to allow the client firm to make decisions concerning their outsourcing engagement. Mahnke et al. (2008) observed that advisory intermediates both cultural and cognitive distances between the client and the supplier, thus allowing them to narrow these asymmetries. Bapna et al. (2016) provides a more detailed account of how advisory may assist both suppliers and client firms in achieving higher values from their outsourcing engagements. For suppliers, advisors secure better matches, and thus are likely to increase supplier’s revenues. For client firms, advisors help to secure a good deal through a bidding process that brings in high-quality suppliers that are willing to reduce price as a reaction to the competitive bidding process. Bapna et al. (2016) also highlight the specific areas that advisory mitigates information asymmetry hazards such as clarity about supplier’s capabilities, price discovery as part of the bidding process and reducing the risk of moral hazard. Indeed, understanding the supplier’s ability to innovate as well as defusing opportunistic behavior of either party has been identified as critical factors for innovation through outsourcing (Oshri et al. 2015). Advisory, therefore, may intermediate information asymmetries that have been identified as inhibiting innovation through outsourcing (Lacity et al. 2016; Aubert et al. 2015; Weeks and Feeny 2008).

While several studies have provided case-based evidence for the factors that have led to achieving innovation through outsourcing (Weeks and Feeny 2008; Whitley and Willcocks 2011; Lacity and Willcocks 2013), to the best of our knowledge, there has been only one study—by Oshri et al., as presented in Chap. 5—that modeled and tested the effect of relational and contractual governance on the likelihood of achieving strategic innovation. Meanwhile, a growing number of studies have clearly indicated that relational mechanisms are imperative to mitigating information asymmetry hazards. With this in mind, we proceed to examine the effect of improving *business familiarity* and the use of *advisory* as two plausible strategies to mitigate information asymmetry risks that hinder innovation through outsourcing.

Theoretical Foundations and Hypotheses

The Notion of Familiarity

The concept of familiarity has been examined in various contexts in the IS field. For example, Komiak and Benbasat (2006) have studied the effect of personalization and familiarity on trust in Web-based product-brokering recommendation agents (RA) settings. Basically, familiarity concerns the experiences accumulated by a client firm in terms of frequency of use and knowledge gained (Soderlund 2002). There has been substantial evidence that high degree of familiarity between buyers and suppliers has positively affected the buyer's performance (Lawson et al. 2008; Cousins et al. 2006). Espinosa et al. (2007), who examined familiarity in software development teams, also claimed that "Workers who are familiar with the task and its context are thought to have larger bodies of knowledge, better organization of this knowledge, and better internal representation of problems".

In the context of IS outsourcing, familiarity has so far been examined as a proxy for the amount spent and number of previous contracts between a client and supplier (Gefen et al. 2008). The definition of (business) familiarity applied so far in the context of IS outsourcing has emphasized the "knowledge based on prior relationships and the implied

future trust it brings about” (ibid.: 533). Put simply, Gefen et al. (2008) claim that prior relationships between the client and the supplier are likely to mitigate risks (such as information asymmetry), as trust between the parties is greater.

While advancements in understanding (business) familiarity between client and supplier have been helpful in identifying the relevance of trust to agency theoretical arguments, there are aspects that require further examination and development. For example, currently, (business) familiarity is assumed to be represented through the spend on and renewal of the contract, with the assumption that suppliers that were not trustworthy were to be weeded out (Gefen et al. 2008). However, in practice, client firms may choose to retain low-level trusted suppliers, while applying higher degrees of control as a substitution strategy, simply because the transaction costs involved in switching suppliers are higher than the costs involved in tightening control mechanisms. Furthermore, the current familiarity literature in the context of supply chain and IS outsourcing has predominately examined the effect of great familiarity on the client firm and its choices, paying little attention to implications for the supplier. Last but not least, as our interest is in innovation, an activity that is only now gaining attention by both practitioners and academics, understanding business familiarity (Gefen et al. 2008) as a proxy of the amount spent on and number of contracts is unlikely to yield the notion of familiarity required or even created by the parties. Consequently, the following sections develop the concept of familiarity and examine its effect on innovation performance in the context of outsourcing.

Familiarity in the Context of Innovation Through Outsourcing

The relevant IS outsourcing literature on innovation through outsourcing has emphasized two key aspects that are a necessity for both client and supplier to possess in order to achieve innovation in their outsourcing engagements. First and foremost, the extant literature has highlighted the importance of “bridging knowledge necessary to transfer ideas” (Weeks and Feeny 2008: 135). Su et al. (2016) have echoed this requirement,

arguing for the centrality of knowledge exchanges between the parties as an essential condition for innovation in outsourcing. In this regard, familiarity is perceived as a product of the knowledge that each party (either client or supplier) possesses about the other that enables to overcome information and knowledge asymmetries, thus deflating opportunistic behavior and promoting collaborative innovation. As such, we refer to the first notion of familiarity as *knowledge familiarity*, which is anchored in the knowledge that the parties have developed in each other and is associated with either the client or the supplier.

Another stream of studies has emphasized the relational aspect involved in achieving innovation through outsourcing. Based on a large-scale survey, Oshri et al., in Chap. 5, have shown that high-quality client-supplier relationships improve innovation performance in outsourcing engagements. Further, Whitley and Willcocks in Chap. 2 have emphasized the need to develop trust between the parties as a condition for engaging in what they have termed as collaborative innovation. As a result, strong relationships between the client and supplier are likely to improve knowledge exchanges between the parties, thus supporting knowledge familiarity (Weeks and Feeny 2008). Thus, we see a role for *relational familiarity* as a second concept in this study.

Client-Supplier Knowledge Familiarity and Innovation Performance

Agency issues arise mainly because of information and knowledge asymmetry between clients and suppliers (Bapna et al. 2016). Client firms that lack knowledge about their suppliers, such as supplier's innovative capabilities, might choose suppliers that are incapable of innovating for them. In such a case, the lack of client's knowledge of the supplier's innovation capabilities might result in the supplier exercising an opportunistic behavior in which innovation would be promised; however, it would not be delivered or alternatively be delivered for high rents beyond its value. To mitigate such risk, Weeks and Feeny (2008) provide a detailed account of the knowledge areas that client firms should enhance that include alignments of strategic objectives of the client and supplier, strong technical retained organization, strong sourcing unit and a match between

the client and supplier organizational structure. Such traits would indeed allow the client firm to align their objective with the supplier, thus deflating risks associated with the wrong choice of a supplier (i.e. a supplier that is not interested to innovate rather than incapable of innovating). However, sensing supplier's innovation capabilities is a challenge. In this regard, similar to the sensing of supplier's delivery capabilities, it is expected that client firms will seek information to verify certain innovation capabilities. Such information can be in the public domain (e.g. cases about innovation projects carried out by suppliers) or through references during the supplier selection process. Gaining this additional information is imperative for deflating the risk of choosing a supplier that is incapable of innovating. We therefore argue:

H1: Higher degree of client-supplier knowledge familiarity is likely to improve innovation performance.

Supplier-Client Knowledge Familiarity and Innovation Performance

In the broad context of IS outsourcing, a supplier's familiarity challenge has been framed around the notion of signaling capabilities (Bapna et al. 2016). At the heart of this view is the proposition that suppliers attempt to differentiate themselves in order to win profitable contracts and hence require to signal superiority in terms of unique capabilities over their competitors. However, signaling unique capabilities by suppliers may lead to a negative effect as more suppliers would be invited by the client firm to bid, hence creating downward pressures on prices in order to win a contract. Suppliers that casted their capabilities as superior to others may eventually suffer from the "winner's curse" (Kern et al. 2002), thus failing to deliver on their promises, including innovation initiatives.

While such agency argument is vital to understanding the effect of a supplier's familiarity on innovation performance, the IS outsourcing literature has also considered cognitive and knowledge issues that are imperative for establishing common grounds between the supplier and client as a condition for collaboration (e.g. Vlaar et al. 2008; Kotlarsky

et al. 2014; Oshri et al. 2008). In this regard, a supplier's knowledge familiarity goes beyond the supplier selection process, emphasized in an agency view, thus examining the supplier's realized ability to engage in developing and delivering innovation for its clients. Indeed, the extant literature has hinted that supplier's understanding of the clients' service and systems as well as its goals has become an imperative element in achieving successful innovation initiatives within outsourcing engagements (Weeks and Feeny 2008). Suppliers are likely to be able to innovate for their clients should they acquire or possess unique knowledge that can be applied when addressing client's business challenges. As such, suppliers can benefit from the transfer of client staff thus acquiring knowledge that can be applied when engaging in innovation initiatives (Weeks and Feeny 2008). Furthermore, suppliers may choose to invest in information exchange sessions with their clients as a mechanism that deflates the supplier-client information asymmetry. We therefore posit:

H2: Higher degree of supplier-client knowledge familiarity is likely to improve innovation performance.

Students of agency theory in the IS outsourcing literature have repeatedly argued that client firms should seek strategies to mitigate against supplier's opportunistic behavior (Gopal and Koka 2012) such as suppliers moving higher qualified personnel to more risky projects, staffing less riskier projects with less qualified personnel. On the other hand, the suppliers' challenge has been traditionally framed as a signaling quality issue, with little attention given to the possibility of an opportunistic behavior on behalf of the client firm. We therefore posit:

H3: Client-supplier knowledge familiarity has greater effect on innovation performance than supplier-client knowledge familiarity.

Relational Familiarity and Innovation Performance

There has been a conventional agreement that strong relationships between client firms and suppliers are likely to improve outsourcing

outcomes (Lacity et al. 2010, 2016). Among the more prominent aspects of the relational aspects is the ability to share knowledge, trust and past experience with the same supplier as a proxy of experience (Benamati and Rajkumar 2002). In the context of innovation through outsourcing, Oshri et al. (2015) have shown that high-quality client-supplier relationship is likely to increase the likelihood of achieving strategic innovation. Their study examined client-supplier relationships as a manifestation of the network created between client and supplier staff. Earlier studies (Weeks and Feeny 2008; Whitley and Willcocks 2011; Lacity and Willcocks 2013) provided ample case-based support for the vitality of strong relationships when innovation is sought. For example, Whitley and Willcocks (2011) emphasize the collaborative nature of such engagement, suggesting that the client and supplier should contract based on values and behavior rather than the traditional contractual governance. Weeks and Feeny (2008) have emphasized the role of trust and governance that are based on promoting strong relationships between the parties. They also encourage the parties to apply high levels of measurement specificity to carefully specify requirements, so the parties can “trust but also verify” their collaborative effort. Such observations lead to suggest:

H4: Higher degree of relational familiarity is likely to improve innovation performance.

Advisory, Familiarity and Innovation Performance

The involvement of advisory in outsourcing engagements may have either a positive or a negative effect on the relationships and the familiarity between the client and the supplier.

Indeed, advisory has been identified as having positive effect on outsourcing outcomes by mitigating information asymmetry hazards (Bapna et al. 2016) and by acting as an intermediary between the client and the supplier (Mahnke et al. 2008). For example, Bapna et al. (2016) offers a detailed account of the areas in outsourcing engagement where advisors may act as brokers of knowledge between clients and suppliers. Advisory

may help overcome misalignments about project requirements, intentions, context, motivations and mutual capabilities, thus bridging information asymmetries between the parties. Further, Bapna et al.'s (2016) study concludes that advisory helps suppliers secure higher annual revenues with higher likelihood of contract growth. Mahnke et al. (2008) provided additional support for the positive effect of advisory by arguing that it mediates potential conflicts and helps in smoothing cultural and cognitive dissimilarities.

On the other hand, advisory may have negative effects on the relationships as well as the familiarity between the parties. Acting on behalf of the client, advisory may make the bidding process more competitive thus pressing down supplier margins and elevating the risk of opportunistic behavior on behalf of the supplier (Gopal and Koka 2012). Further, the presence of advisory may elevate moral hazard between the supplier and the client, as advisory may challenge suppliers' conventions and practices. Under such conditions, advisory will be considered by the supplier as undermining its position within the relationships, resulting in a competitive rather than a collaborative setting. We therefore posit:

H5: The use of advisory will influence the positive effect of client-supplier familiarity on innovation performance.

H6: The use of advisory will influence the positive effect of supplier-client familiarity on innovation performance.

H7: The use of advisory will influence the positive effect of relational familiarity on innovation performance.

Data and Method

Sample and Data Collection

To examine the effects of business familiarity on innovation performance in outsourcing arrangements, we conducted a survey of 147 client firms

(hereafter referred to as clients) that had achieved innovation in their outsourcing projects. The unit of analysis was the relationship between a client and one of its outsourcing partners (hereafter referred to as suppliers). We have solicited help from an independent market research company in contacting the respondents, sending out questionnaires and collecting the responses. To that end, the market research survey company was provided detailed instructions as regards the characteristics of the sample we were after.

The main criterion that qualified a particular respondent within a client firm for inclusion in our survey was his or her active involvement in managing the outsourcing relationship with a supplier. Furthermore, we were interested only in those outsourcing arrangements that aimed at innovation as opposed to the cases when standardized service delivery was expected from suppliers. To that end, we used a set of screening questions to ensure that each respondent in his/her current role (a) had substantial experience with business process or IT outsourcing to third-party suppliers, (b) is sufficiently familiar with how outsourcing services were planned, delivered and evaluated within the client firm and (c) has pursued innovation through outsourcing. Failure to respond affirmatively to any of the three screening questions resulted in a respondent being excluded from the survey.

The final sample consists of 74 UK-based and 73 Italy-based firms (see Table 6.1). The industry distribution of firms in our survey is as follows: retail, distribution and transport (25.17%), manufacturing (24.49%), financial and professional services (17.69%), public sector (14.29%) and ICT (8.84%). The remaining 9.52% was split between firms that did not fit into any of the aforementioned industry classifications. The sample is mostly composed of medium- and large-sized companies: 29.93% of firms can be classified as medium-large (250–999 employees); large (1000–3000 employees) and extremely large (more than 3000 employees) accounted for 31.29% and 30.61% of our sample, respectively. The share of small-sized companies (less than 250 employees) in our study was 8.16%. The main characteristics of the sample are reported in Table 6.1.

Table 6.1 Description of the sample ($n = 147$)

Sample characteristics		Frequency	Percentage, %
Country	UK	74	50.34
	Italy	73	49.66
Industry sector	Retail, distribution and transport	37	25.17
	Manufacturing	36	24.49
	Financial and Professional services	26	17.69
	Public sector	21	14.29
	ICT	13	8.84
	Others	14	9.52
	Firm size	Small (<250 employees)	12
	Medium-large (250–999 employees)	44	29.93
	Large (1000–3000 employees)	46	31.16
	Extremely large (>3000 employees)	45	30.61

Dependent Variable

Our central variable of interest was *innovation performance* in outsourcing as perceived by client firms. To measure this construct, we employed a composite score from four Likert items. To that end, each respondent was asked to express their agreement with a series of predefined statements as to what extent their perception of innovative solutions delivered through outsourcing by their supplier has changed over the past five years with regards to (a) the number of solutions, (b) the quality of the outcome, (c) resulting market growth and (d) business process efficiency. We have used seven-point Likert scale for this construct with scale anchors “1” corresponding to “decreased a lot” and “7” corresponding to “increased a lot” evaluations by respondents. The composite Likert score was calculated as a sum of the corresponding Likert items and treated as interval data for the subsequent statistical analysis. The reliability of the overall summative scale was assessed using Cronbach’s alpha coefficient ($\alpha = 0.83$).

Independent variables

To capture knowledge asymmetry in outsourcing arrangements, we discern between two types of familiarity in our study: (a) client-supplier knowledge familiarity and (b) supplier-client knowledge familiarity. To measure the former, we used four-item Likert scale to evaluate the extent to which the client (a) has been aware of the strategic goals the supplier was pursuing in an outsourcing deal, (b) has been able to assess *ex ante* whether the supplier was capable of delivering an innovative solution (c) has been familiar with the methodologies that the supplier was applying and (d) has understood the supplier's capabilities that were critical for producing an innovative outcome. All four items were self-reported by respondents on a seven-point Likert scale; Cronbach's alpha is 0.78.

Supplier-client knowledge familiarity was measured as *perceived* by the client.¹ To that end, we have used four-item Likert scale to assess to which extent a supplier, from a client's perspective, (a) has possessed sufficient understanding of the business challenges the client was facing, (b) has possessed in-depth knowledge of the client service outsourced, (c) has been aware of the business processes related to the client service outsourced and (d) has been aware of the strategic goals that were pursued by the client when the service was outsourced. All four items were reported on a seven-point Likert scale; Cronbach's alpha scale reliability coefficient is 0.79.

Prior empirical studies have measured familiarity in buyer-supplier relationships as a number of repeated interactions with the same buyer/vendor (Gefen et al. 2008), or as an average number of times each pair of team members has worked together before (Espinosa et al. 2007; Huckman et al. 2009). In our view, these measures account for the role of past experience in increasing *knowledge* familiarity but do not fully capture the *relational* aspects of buyer-supplier relationship. Thus, consistent with earlier work on relational capital (Kale et al. 2000; Lawson et al. 2008), in this chapter we have developed a six-item scale to measure *relational familiarity* as reflected in buyer-supplier personal interactions, mutual trust and open communication for each client-supplier dyad (Cronbach $\alpha = 0.76$).

Finally, the respondents were explicitly asked to state whether they have involved third-party advisory firms to mediate their relationship with suppliers. We include *advisory* as a dummy variable that takes value of 1 if a client firm relied on advisory services in managing an outsourcing project and 0 otherwise. Whenever respondent was not aware of whether advisory has been used (i.e. selected “I do not know” response option), the value of the advisory variable was set to missing.

Controls

We have also included a series of variables to control for country-, industry- and size-level effects. First, by the design of the survey only the firms from Italy and UK were eligible for participation in the study. To account for the differences in quality of innovation that might have arisen due to the country of origin, we include *country* as a dummy variable that uses UK as a baseline category. Second, we include categorical variable *industry* to account for the industry-level effects on innovation in outsourcing. To that end, we have introduced five industry dummy variables with the retail, distribution and transport industry used as a reference category. We used analogous procedure to capture the effects of the firm size on our dependent variable with the category of small-sized firms used as a baseline category. Finally, we have accounted for the fact that more experienced managers may provide more effective evaluations of suppliers’ outcomes (Poppo and Lacity 2006; Lacity and Willcocks 2003) by including four categorical *outsourcing experience* variables in our regression models.

Analysis and Results

Table 6.2 reports descriptive statistics and Pearson correlations (all correlations are significant at $p < 0.01$). Preliminary inspection of the bivariate correlation coefficients seems to indicate that relationships between our variables of interest go in the predicted directions.

Table 6.2 Descriptive statistics and correlation matrix

	Variable	Mean	SD	Min	Max	1	2	3	4	5
1	Innovation performance	21.35	3.28	12	28	1.00				
2	Country	0.50		0	1	0.34	1.00			
3	Advisory	0.53		0	1	0.30	0.28	1.00		
4	Supplier-client knowledge familiarity	22.10	3.85	7	28	0.64	0.38	0.28	1.00	
5	Client-supplier knowledge familiarity	22.33	4.19	9	28	0.50	0.27	0.22	0.71	1.00
6	Relational familiarity	33.28	4.93	17	42	0.54	0.15	0.09	0.50	0.44

We followed the standard practice of presenting the results in hierarchical fashion by progressively adding independent variables in the regressions (see Table 6.3). The data were analyzed using multivariate ordinary least squares regression technique. For the purpose of regression analysis, we standardized the values of our dependent variable and continuous independent variables around their means. The rationale behind using mean-centered values (z-scores) was to ensure comparability between the variables that were obtained through summation of different number of Likert scale items. That is, both main and interaction coefficients in our regressions represent the magnitude of change in our dependent variable if a given independent variable increases 1 SD from its mean and should be interpreted as such.

Model 1 is our “baseline” model that includes control variables only. The results suggest that there is no significant effect of advisory on innovation performance if other firm-level and individual-level characteristics are being controlled for. Model 2 introduces supplier-client knowledge familiarity in the regression. The variable’s coefficient is positive and significant ($\beta = 0.421$, $p < 0.01$), thus seeming to suggest that the greater is supplier’s familiarity with an activity the client is outsourcing, the better and more innovative the outcome of the project is. However, when we include both supplier-client and client-supplier knowledge familiarity in the same regression equation (Model 3), the effect of supplier-client familiarity disappears, whereas the effect of client-supplier familiarity

Table 6.3 OLS regression model on innovation performance

Variables	(1)	(2)	(3)	(4)	(5)
Country dummy	Incl.	Incl.	Incl.	Incl.	Incl.
Firm size dummies	Incl.	Incl.	Incl.	Incl.	Incl.
Industry dummies	Incl.	Incl.	Incl.	Incl.	Incl.
Outsourcing experience dummies	Incl.	Incl.	Incl.	Incl.	Incl.
Advisory	0.277 (0.169)	0.192 (0.153)	0.140 (0.140)	0.176 (0.134)	0.165 (0.126)
Supplier-client knowledge familiarity		0.421*** (0.075)	0.100 (0.093)	0.053 (0.089)	-0.152 (0.124)
Client-supplier knowledge familiarity			0.484*** (0.094)	0.376*** (0.094)	0.361*** (0.115)
Relational familiarity				0.265*** (0.070)	0.215** (0.090)
Advisory × Client-supplier knowledge familiarity					0.317 (0.198)
Advisory × Supplier-client knowledge familiarity					0.350** (0.170)
Advisory × Relational familiarity					-0.039 (0.140)
Constant	-0.644 (0.614)	0.136 (0.571)	0.185 (0.522)	0.043 (0.499)	-0.339 (0.478)
Observations	147	147	147	147	147
Adjusted R-squared	0.200	0.349	0.455	0.505	0.562

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

remains positive and strongly significant ($\beta = 0.484$, $p < 0.01$). The fact that supplier-client familiarity no longer affects innovation performance once client-supplier familiarity is controlled for seemed to indicate the presence of a mediating effect between the two variables. We have used four-step procedure by Baron and Kenny (1986) to test the significance of the mediation effect. Furthermore, we carried out Sobels-Goodman mediation test to calculate the proportion of the total effect that is mediated by client-supplier familiarity variable. The results of the tests suggest that the mediation effect of client-supplier familiarity is significant with

approximately 80% of the total effect (of supplier-client familiarity on innovation performance) being mediated. This mediation effect appears to be robust across all reported model specifications.

Model 4 adds relational familiarity variable in the regression equation and includes all three independent variables simultaneously. The results demonstrate that both client-supplier knowledge familiarity ($\beta = 0.376$, $p < 0.01$) and relational familiarity ($\beta = 0.265$, $p < 0.01$) have a positive and significant effect on innovation performance, thus providing empirical evidence for Hypotheses 1 and 4. The magnitude of relational familiarity effect, however, is significantly smaller compared to the effect of client-supplier familiarity on innovation performance. Contrary to our expectations, Hypothesis 2 was not supported as supplier-client familiarity does not have a direct effect on innovation performance. Our results also seem to support Hypothesis 3 in that client-supplier knowledge familiarity has a greater effect on innovation performance than supplier-client knowledge familiarity as the effect of the latter is completely mediated by the former.

Finally, model 5 includes interactions of our three independent variables of interest with advisory and reveals some interesting insights. With respect to client-supplier familiarity and relational familiarity, we found that while the main effects of the two variables remained positive and significant ($\beta = 0.361$, $p < 0.01$ and $\beta = 0.215$, $p < 0.05$, respectively), there was no moderating effect of advisory. That is, the magnitude of effect of both variables on innovation performance does not depend on whether a company uses advisory in its outsourcing project or not. Hence, Hypotheses 5 and 7 were not supported. With regard to supplier-client familiarity, the results seem to suggest that while neither advisory nor supplier-client knowledge familiarity have significant effects on innovation performance *on average*, using advisory services may benefit the suppliers with above-average levels of familiarity with the client.

Figure 6.1 graphically illustrates how differences in predicted innovation performance between outsourcing projects with and without third-party advisory vary depending on the value of supplier-client knowledge familiarity. The horizontal zero line on the graph is the baseline reference category (i.e. non-advisory case) against which the comparison is made. The 95% confidence intervals are used to understand if the observed differences

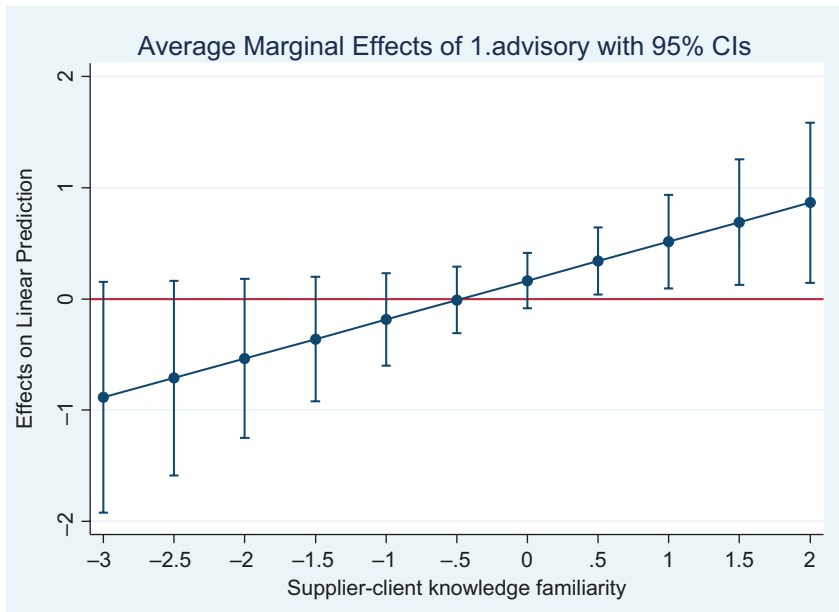


Fig. 6.1 Marginal effects of supplier-client knowledge familiarity on innovation performance: advisory versus non-advisory case

are statistically significant. It can be inferred from the graph that for the lower values of supplier-client knowledge familiarity, there are no significant differences in mean performance between the two categories. However, for the values of supplier-client knowledge familiarity exceeding the mean value, the difference in mean performance between the two categories becomes statistically significant in that the advisory benefits only those suppliers that have higher levels of knowledge familiarity with their clients. Our results thus suggest that Hypothesis 6 is supported only for the projects with high degree of supplier-client knowledge familiarity.

Discussion and Implications

Our main interest was to understand how three types of familiarity (supplier-client, client-supplier and relational) would influence innovation performance and the role that advisory plays in such settings. At the

heart of our examination is the agency argument that information asymmetry between client and supplier is likely to spoil opportunities to innovate (Oshri et al. 2015), thus requiring a high degree of familiarity between the client and supplier. However, the concept of familiarity in IS outsourcing has so far been understood as the amount spent on outsourcing relationships, providing limited relevance to the innovation context in outsourcing. In outsourcing engagements, innovation is still considered to be rather challenging, often one-off activity and its impact on revenues is unknown (Oshri et al. 2015). Consequently, familiarity in our study is understood as a product of knowledge and information exchange, an aspect that is highly relevant to agency issues.

First, our results confirm past observations that relational familiarity positively affect innovation performance (Oshri et al. 2015; Weeks and Feeny 2008). Strong relational familiarity between the parties is, in particular, important for innovation through outsourcing, as relational flexibility (Gopal and Koka 2012) may mitigate opportunistic behavior of either party. Relational flexibility may allow the parties to make adjustments to their information exchange procedures without attributing rents when adaption is made by either side. As such, we support past studies (Weeks and Feeny 2008; Lacity and Willcocks 2013) that strong relational familiarity, leading to flexibility, may indeed have positive effect on the exchange of information, thus supporting innovation performance.

Second, our results also show that a supplier's familiarity with the client does not improve innovation performance as a stand-alone variable; instead, it is mediated by the client's familiarity of the supplier. Against our initial assumption that each party's familiarity would have a stand-alone effect on innovation performance, we discover that there are dependencies between the party's familiarities. The precondition for the supplier to innovate for the client is that client knows the supplier well. In turn, the supplier would be able to improve their knowledge of the client and thus engage in innovation. The client familiarity with the supplier has gained little attention in the literature as the common assumption has been that suppliers are the source of knowledge in outsourcing relationships (Oshri et al. 2008) and information asymmetry is likely to benefit the supplier rather than the client (Bapna et al. 2016). In our study, we

challenge the idea that supplier's information asymmetry is a signaling abilities challenge and show that such asymmetry is affecting innovation and is subject to the client's familiarity of the supplier.

Third, our findings provide moderate support for the positive effect of advisory in outsourcing engagements (Lacity et al. 2016; Bapna et al. 2016). Our results show that the effect of supplier's knowledge familiarity with the client on innovation performance is stronger in presence of advisory if the level of familiarity is sufficiently high. On the other hand, the presence of advisory does not have an effect on relational familiarity nor on client's familiarity. As such, advisory seems to improve supplier's familiarity with the client, thus reducing knowledge asymmetries between the parties. We therefore refine the contribution of advisory to outsourcing engagements (Bapna et al. 2016; Mahnke et al. 2008), showing that advisory is a intermediating agent that its presence is critical for the supplier's information absorption ability more than for the client's.

There are several theoretical and practical implications from our study. First, our study contributes to understanding the role of familiarity in the context of IS outsourcing engagements. We built on the past few studies' empirical studies (Gefen et al. 2008) and further developed the concept of familiarity to suit the context of innovation. Our conceptualization of familiarity allowed us to model and test the effect of three types of familiarity (relational, supplier-client and client-supplier) on innovation performance. Our results shed additional light on the role that familiarity plays in enhancing innovation through outsourcing. We discover that, in terms of knowledge familiarity, supplier's knowledge is beneficial in terms of innovation only when client is familiar with the supplier. As such, we refine past studies about the nature of knowledge asymmetries between the client and supplier, to demonstrate the nature of interdependencies between these two types of familiarities.

Second, our results also have implications for the growing interest in the role of advisory. The study of advisory in IS outsourcing has so far provided broad indication for their positive effect on mediating cultural and cognitive issues between the client and offshore supplier (Mahnke et al. 2008) and their positive effect on supplier's revenue (Bapna et al. 2016). Our study shows that advisory is also an imperative agent in

reducing information and knowledge asymmetries, in particular benefiting the supplier's familiarity with the client.

From a practical viewpoint, our study shows that client and supplier should equally invest in developing familiarity with each other's methodologies and systems. However, our study suggests that for the supplier's familiarity to be effective, clients have to make equal effort in familiarizing themselves with the supplier's goals and abilities to innovate.

Finally, the inclusion of advisory in an outsourcing engagement in itself does not yield higher innovation performance, but offers benefits for the supplier. Interestingly, advisory acts on behalf of the client firm; however, in the case of the innovation, we posit that its greatest impact is on the supplier's familiarity of the client, which in turn benefits the engagement. Clients therefore should facilitate the role of advisory, bearing in mind that advisory's involvement would be beneficial subject to the supplier enhancing its familiarity of the client.

This study has several limitations. First, supplier's familiarity of the client is a perceptual construct which was provided by an informant from the client firm and thus does not reflect on the actual supplier's familiarity of the client. Future research should consider designing such a study by sampling informants from both clients and suppliers, ideally of the same outsourcing engagement. Second, our sample is based on informants from Italy and the UK. While additional test we carried out to control for the two populations did not yield major concerns about the effect of these different populations, there are still concerns that some unique features of these two populations may have had an effect on the results of this study. Future studies should either focus on a single country sample or increase the sample per country to allow a reliable testing of certain characteristics of each population with a much bigger sample.

Conclusion

Innovation through outsourcing has gained growing attention among both academics and practitioners in recent years. However, there have been numerous reports that clients and suppliers have still struggled to foster collaborative innovation. One particular reason for such challenges

is information asymmetry between the parties that stimulates opportunistic behavior. Remedies offered in the extant literature encourage firms to enhance familiarity between the parties and/or consider using advisory. In this chapter, we sought to examine the effect of familiarity, consisting of three dimensions (supplier-client, client-supplier and relational) and their effect on innovation performance. Further, we examined whether the presence of advisory improves innovation performance as a moderating variable. Our results suggest that client-supplier familiarity mediates the effect of supplier-client familiarity on innovation performance. Also, relational familiarity positively affects innovation performance. Last but not least, we did not find support for the effect of advisory on innovation performance; however, our results suggest that advisory moderates the effect of supplier-client familiarity on innovation performance.

Notes

1. An alternative way to measure supplier familiarity would be to pair-match each client firm with its respective outsourcing provider and collect the responses to the same series of questions from the latter. Due to the anonymous nature of our survey, however, neither clients' nor suppliers' names have been disclosed, thus precluding us from following this route.

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Part III

The New Outsourcing—Cloud and Service Automation



7

Cloud Computing as Innovation: Cases and Practices

Leslie P. Willcocks and Mary Lacity

Introduction

Cloud computing represents a potential crossing point. But we also point out that our research over four years has found time and again that it takes a huge amount of effort to make Cloud work to scale for large organizations, for the long term. It is all too easy to overestimate the likely short-term impacts of cloud computing but also underestimate the long-term effects. Our previous research (Willcocks et al. 2014) suggests five major trends:

1. Cloud computing is becoming the harbinger of the service dimension in the external IT and business services industry.
2. A continuing evolution from offering IT products to providing business services.

L. P. Willcocks (✉)

London School of Economics and Political Science, London, UK

M. Lacity

University of Missouri, St. Louis, MO, USA

e-mail: Mary.Lacity@umsl.edu

3. In-house IT leaders becoming high-performing and business-savvy IT-sourcing architects.
4. A reconfiguration of the supply industry that will take much longer than five years to feel its full impact.
5. Innovations in business models. Except for those “born in the cloud,” it could take at least a decade beyond 2020–2025, to work through transformations for the vast majority of organizations.

There are many emerging management challenges experienced with cloud adoption. According to all our prior research on the topic, these include:

- Adopting the cloud is an arduous process banging up against culture, existing structures, and governance modes. Organizational change capability is critical.
- With the cloud, there are still genuine security and privacy challenges that must be worked through for the specific organization.
- If governance and sourcing were a challenge in the past, cloud computing introduces new, more rapid risk.
- Integration with legacy technologies and defining and executing the migration path to cloud computing can become major obstacles.
- Governance and interoperability in the larger cloud computing “ecosystem” become key.
- Human resource implications of cloud computing are considerable. Digital skills shortages in-house are a major drag on making cloud progress.
- Faced with these challenges, getting business innovation from Cloud computing has frequently been postponed.
- The technology function will require new turbo-charged roles in business innovation, business savvy, governance, architecting, and specialist sourcing in order to form the core retained capabilities needed for moving to the cloud.

In this chapter, we use researched examples of effective cloud adoption among small and medium enterprises (SMEs) and global leading firms to demonstrate, in detail, the challenges, the practices to deal with these,

and the emerging lessons for other organizations. We found that the severity of some management challenges were quite different depending on organizational size, suggesting that cloud practices need to be tailored, based on size of firm. Therefore, we clustered our cloud adoption stories into SMEs versus global firms. The Research Base and acknowledgments for this chapter are described in the Appendix.

Cloud: The Great Equalizer for Small and Medium Enterprises?

In the USA, by 2015, SME firms represented 99% of US employer firms, employed 49.2% of all private sector employment, had generated 64% of net new jobs over the past 17 years, and represented 33% of exporting value. In the UK, SMEs accounted for 99.9% of all private sector businesses, 59.1% of private sector employment and SMEs with ten or more employees accounted for about one-third of the value of UK exports. In Australia, SMEs represented 99.6% of all employing businesses and employ 60% of all private sector employment.

Cloud computing is considered to be the great equalizer between small and large client firms by many senior executives and pundits. Here, we investigate this conjecture further because there has been very little research or public attention on the outsourcing of cloud services by smaller firms. Because of the importance of SMEs to most economies, the previous record of spotty IT adoption by SMEs due to IT financing, management, and skills challenges, and the potential for cloud services outsourcing to alleviate some of these challenges, we ask ourselves two questions:

- What are the SME adoption processes and outcomes for cloud services outsourcing?
- Does size of client firm affect cloud adoption processes and outcomes?

We are going to look at three cases. The Dana Foundation first adopted cloud services in 2009, including infrastructure as a service (IaaS) and software as a service (SaaS), and it had adopted platform as a service

(PaaS) by 2015. Its Cloud champion was the Director of IT. Diesel Direct adopted cloud services in 2012 and, by 2014, its entire infrastructure was in the Cloud. Its Cloud champions were the CEO and chief innovation officer (CIO). Art-World never migrated to the Cloud; the start-up was “born in the Cloud,” including IaaS, PaaS, and SaaS. Its Cloud champion was the Head of Engineering. The percentage of IT budget for cloud services varies between 10% and 25% in these client companies. The Dana Foundation and Diesel Direct each have three cloud service providers; Art-World has one major provider, but it also uses Gmail and Google docs. Each of their adoption stories is summarized in the following section (see also Table 7.1).

Cloud Adoption

The Dana Foundation is a private philanthropic organization that supports medical research through grants, publications, and educational programs. Based in New York, this foundation was founded in 1950. It had, in 2015, around 30 employees overall, including five employees within the IT department and led by the Director of IT. The Dana Foundation initially adopted cloud provision in 2009 when it engaged an infrastructure provider to host their website. When the current Director of IT was hired in 2011, he immediately championed the idea that further cloud adoption could address the organization’s need to upgrade IT infrastructure and services without investing a large amount of capital upfront. The Director of IT explained, “We saw cloud computing as a way to right-size our expense ratio and deliver the same amount of technological services

Table 7.1 The three SMEs and cloud computing

	Client firms		
	The Dana Foundation	Diesel Direct	Art-World
Number of FTEs	30	200	40
Number of IT employees	5	6	12
Headquarters	NYC	Stoughton, MA	NYC
First cloud adoption	2010	2012	2010
% IT budget cloud	25	20	10
# Cloud providers	3	3	2

that the foundation needed.” During his first two years, he adopted more IaaS, SaaS, and then adopted PaaS. In the IaaS space, by end of 2013, the Foundation had moved 75% of their resources to a cloud provider that offers both private and public clouds. It hosted its website and back-end tiers in the public cloud. In the SaaS space, it adopted [Salesforce.com](https://www.salesforce.com) to manage contacts and grants administration. The Director of IT’s vision has been to virtualize the entire office.

Diesel Direct is a US-based company with a roaming fleet of diesel trucks that fills diesel tanks to 50,000 client sites and vehicles each week. It refills client’s vehicles wherever the client is located—at a business, at a road stop, and so on. The company was founded in 1998 with the idea that it would be cheaper to bring fuel to trucks when the trucks were not in use. Besides avoiding long lines at crowded fuel islands, the company adds value to clients through its IT-enabled systems that track fuel consumption, collect environmental and tax compliance evidence, plan refueling events, and bill or bill back support. The company can deploy analytics to investigate fuel waste or shrinkage. Diesel Direct first adopted cloud provision in January 2012. The company’s entire infrastructure became provisioned in a private cloud by a third-party provider. Microsoft Outlook and time management were sourced as SaaS. The remaining software was resident on the Cloud but managed by Diesel Direct. The CIO had also more recently adopted Customer Relation Management SaaS solutions.

Art-World is a privately held SME that went live in 2011 with funding from several prominent business people. Its mission is to make art available to everyone. Art-World provides a free platform where anyone can discover and learn about art from hundreds of galleries, museums, foundations, and estates from all over the world. Art-World earns a commission when it connects an art collector to a gallery. The company adds value to the art community by assigning values to over 1000 attributes for each piece of art. For example, an attribute for Pop-Culture might assign the highest value to work by Andy Warhol, since Warhol is the iconic artist of this genre; Warhol would be assigned a zero for a French Impressionist attribute. As of 2013, over 21,000 pieces of art had been tagged by employees with backgrounds in art history. These attributes allow art collectors to find works of art that meet their specific tastes or

interests. So, for example, if a collector likes a particular painting by Monet, he or she can search for artwork with similar attributes.

The Head of Engineering began, “I have no transition story to tell” because Art-World was “born in the cloud.” The Head of Engineering was hired a year before launch. As a start-up, the costs of erecting a fully staffed, in-house IT infrastructure were prohibitive, so the Head of Engineering built the IT capabilities with the help of a cloud provider. Other than switches for the office’s wireless network and desktops, Art-World’s entire infrastructure is in the Cloud. The Head of Engineering said: “We are 100% cloud computing shop. There was just no other way to do what needed to be done.” Art-World uses Gmail, Google docs, and the business applications run entirely on Amazon’s infrastructure through a relationship with its cloud provider. The cloud provider delivers all the technical support, including 24-hour support. Art-World also uses the cloud provider’s add-ons for database services, analytics, and performance tracking. They also buy SaaS solutions for sales.

Cloud Drivers

The main drivers for three case companies are shown in Table 7.2.

Besides cost, the Director of IT of the Dana Foundation cited simplicity of administration and data management and disaster recovery/business continuity as the main drivers of cloud computing. For example, the Director explained the drivers for moving their email to Office 365: “Before cloud, we had a single point of failure here at the office during Hurricane Sandy. We have now eliminated that single point of failure by moving it to Office 365.”

For Diesel Direct, The CIO said scalability and flexibility were the two main drivers of IaaS adoption. The CIO saw IaaS as the best way

Table 7.2 Cost drivers

The Dana Foundation	Diesel Direct	Art-World
Cost reduction	Scalability	Cost avoidance
Simplicity	Flexibility	Scalability
Business continuity		

to meet increased IT demand caused by the company's rapid growth while at the same time adapting to seasonal and monthly fluctuations. The CIO explained: "We have a business that not only has some industry ups and downs as far as times of year, but volumes of compute hours also fluctuate monthly. That flexibility was a big decision factor. The second thing is as we are growing as well, the availability of the technical resources to manage the different pieces of it, whether it is Windows or UNIX infrastructure, web services, SQL services, things of that nature. We are a medium-sized company, so we can't afford to have those skills on staff, but as we need those skills to be available to us."

For Art-World, according to the Head of Engineering, *cost avoidance* was the primary driver of cloud adoption. As a start-up, Art-World had to keep spending as low as possible. Cloud computing was an ideal solution because Art-World only has to pay for IT resources they actually use. Scalability was the second most important driver. The Head of Engineering explains: "If we have an article about us appear in the New York Times and usage skyrockets, I can request and get more machines in 30 seconds. It's that quick."

Cloud Barriers

What are the main barriers to cloud services adoption? Reporting in 2012, Everest Group found that the rank order of barriers to cloud adoption by client firms were (1) security concerns, (2) integration of cloud solutions, (3) lack of budget for new initiatives, (4) lack of suitable cloud solutions, (5) lack of in-house capability, and (6) fear of vendor lock in. Consistent with this and our own research from 2014 onwards, data security was the primary concern expressed by stakeholders in the three SME companies we studied.

Among the three cases, data security concerns were expressed by internal stakeholders at the Dana Foundation and Diesel Direct and by external stakeholders at Art-World (see Table 7.3).

At The Dana Foundation, some of the senior managers were concerned about data security in the Cloud. The Director of IT explained: "After all

Table 7.3 Stakeholder concerns

The Dana Foundation	Diesel Direct	Art-World
Data security	Data security	Data security

these years, and this is pretty true throughout my career, folks have felt more of a security blanket approach to holding data internally.”

In Summer 2011, Hurricane Irene knocked out power to Diesel Direct’s offices, which crashed their email system and halted business. This made the executives aware of the fragility of the in-house infrastructure, but as a fuel company, most of the business executives still were unfamiliar with cloud computing and expressed concerns about cloud security.

At Art-World internally, there was very little stakeholder resistance or concern; Art-World was founded by a computer scientist and employs engineers, so they understood and supported cloud provision. The galleries and art collectors showed some concern: “I would not call it stakeholder resistance, but stakeholder reticence. We have a lot of private data and the surface of exposure is pretty large.”

Stakeholder Buy-In

The key informants explained how they overcame stakeholder concern through practices such as gradual adoption, education, and relationship building.

At The Dana Foundation, some of the senior managers were concerned about data security in the cloud. Stakeholder buy-in was eased by the economic benefits of cloud provision. The Director of IT continued: “The administrative costs to manage that data internally, to manage the infrastructure, and the capital expense needed to maintain a hosted environment at our own site here, necessitated the look at other options.” To help assuage stakeholder concerns, the IT department adopted cloud provision gradually. First, the website was moved to the public cloud, then hosted resources, then email. According to the Director of IT, email had been a “smashing success” and paved the way for moving more mission-critical applications, like contact and grant administration, to a

SaaS model. The latter had the greatest effect on end-users: “Any kind of change to the end user is going to be a little traumatic. However, the pain and the cost levels have gotten to a point where change is definitely in order. That’s the fulcrum point that has moved us over the tipping point.”

The CEO and CIO at Diesel Direct were hired to help transform the company, in part by exploiting more IT-enabled solutions. The new CEO had actually built an IaaS business for a large global provider prior to coming to this company. The CIO used to work for him. Both the CEO and CIO understood that business executives were concerned about the security of the cloud, but based on their prior experience, they were able to alleviate security concerns, primarily through education and relationship building. The CIO said:

I’m personally very comfortable with qualified third parties having access to my data system. It was a little easier for me coming from my background to be able to not only explain to the business leaders how their data would be available and secure but also from my own standpoint knowing that I could sleep at night knowing they were taking care of me.

As far as education was concerned, the CIO explained the difference between seeing a server in a resident server room versus monitoring the server housed in a class A-rated data center:

We worked hard to build trust because we were new. I was here for a month plus before we started the cloud project. So, 45 days is not a lot of time for someone to trust you. So, to show them that I know what I’m doing and that they can trust me, I was already working towards helping them.

For example, the CIO tweaked the current systems to make it more secure and to reduce downtime. The CIO continued:

So, building that trust with getting those quick wins to show that I know what I’m doing as far as technology is concerned was a big help in moving us towards the cloud.

As mentioned above, some of the galleries and art collectors showed some concern about data security. Art-World’s Head of Engineering

explained to stakeholders how client contact information is accessed and protected. This education helped to get buy-in.

Provider Selection

How do SME clients select their cloud providers? According to a 2012 Everest survey, clients select cloud providers based on (1) security of the offering, (2) contract terms and service-level agreements (SLAs), (3) reputation and tenure of the provider, (4) client referrals, (5) physical location of the provider's facilities, and (6) price. As far as the selection process is concerned, provider selection for the outsourcing of complex Information technology outsourcing (ITO) services often involves long Request For Proposal (RFP), procurement, and negotiation processes. In contrast, *provider selection for cloud services is a faster process, according to key informants*. Below, the key informants describe how they selected their providers or why they continue with existing cloud providers.

As far as selecting their main cloud provider, the key informants from The Dana Foundation were not privy to the initial provider selection, but the four-year relationship between The Dana Foundation and its IaaS provider was extended in 2013 for two more years. The Director of IT did not seriously consider switching providers when the contract expired. He said:

We were more than happy to continue with the incumbent relationship. We were so happy with the level of service and the relationship as well. To me, any cost differences far outweighed the efforts needed to move to an unknown provider.

The CIO explained how Diesel Direct selected its largest cloud provider. The CIO met face to face with three providers. The CIO chose not to do a formal RFP based on his prior experience. He said:

I've spent almost all my life in the outsourcing business; I'm used to proposing and responding to long proposals and filling in spreadsheets with the yellow tabs and all. From my perspective, it's better to sit down and discuss and get a good idea of who you want to work with first before you spend all that time on an RFP.

Art-World has been in a relationship with its primary cloud provider since launch in 2011. After considering several other providers, including the option of contracting directly with Amazon Web Services, Art-World selected its cloud provider based on referrals from and visits with other clients.

Contractual Governance

What types of contracts govern relationships with cloud providers? Best practices from complex ITO services—detailed contracts with sometimes hundreds of SLAs—did not apply to cloud services outsourcing in the SME cases we studied (see Table 7.4). Instead, contract durations ranged from no contract other than terms of use to three years, and the only SLAs included were availability of the cloud service and response time to queries.

At The Dana Foundation, the Director of IT described the scope of the contract as “a boiler plate IaaS hosting contract.” The contract was priced by compute resources and invoiced monthly. For example, the contract specified the amount of disk CPU RAM that the provider hosted in a virtualized environment for The Dana Foundation. The provider controlled the virtualized infrastructure, including access to that environment for administration purposes. The provider hosted everything in their tier-one data centers which, for this client, were in Boston and Houston. Their sites were highly malleable because the provider could

Table 7.4 Contractual governance

	The Dana Foundation	Diesel Direct	Art-World
Contract duration	3 years	3 years	No contract
Pricing	Unit pricing	Unit pricing and management fees	Unit pricing and fees for add-ons
SLA	Availability Response time to queries	Availability Response time to requests	Availability
Invoicing	Monthly	Monthly	Monthly

shift resources between sites, depending on continuity requirements. The SLAs addressed availability of services and response time to client requests of between 8 and 24 hours. The SVP from the provider added:

We provide SLAs around the availability of the infrastructure from a network perspective, from a storage perspective, and from a VMware host perspective. We also provide a performance SLA on the actual disc, which is definitely unique and forward-looking. A lot of organizations are not doing this yet, and we've been doing it for years.

The provider measured client satisfaction at a relationship level monthly and measured client satisfaction for the handling of every service request.

Diesel Direct signed a three-year contract in December 2011 before going live in January 2012. The contract for CPU and storage was priced on a baseline volume of service, with extra charges if volumes exceed a baseline threshold. The cloud provider allocated additional resources automatically based on a consumption model. There was a cap on extra resources that required the CIO's permission. In addition to resource pricing, the contract included small monthly fees for management of SQL, the firewall, networking, and operating systems. For Diesel Direct, an SLA for availability was their top priority. Their billing systems must always be up. The CIO explained:

There is really just one extremely large risk that we have in this particular industry. And that is: every night, our trucks go to terminals and pick up 3 to 5,000 gallons worth of fuel and take them to customers and load them onto their trucks or their tanks. Which means that we are buying a million gallons worth of gas a week; We have to pay for a million gallons of gas a week. In order to ensure that all of that works, the billing system has to be available 24/7 so we can invoice customers.

The provider replicated their systems and servers at two data centers and guaranteed 99.95% availability. The first 13 months into the contract, the service had been available 100% of the time. The contract included an SLA for time to implement new requests submitted through a portal.

There was no long-term contract at Art-World: resources were paid for monthly. The provider invoiced for the number of hours of virtual machines used and for hours of use for each add-on. The cloud provider had SLAs for production and development environments, but the Head of Engineering was not too concerned:

In the real world, my software will fail more often than their infrastructure. So far, the uptime and response time has been pretty good, but if it ever degraded, we could always switch providers.

Relational Governance

Key informants told us that cloud services did not require as much client-provider interaction (see Table 7.5); cloud services were more standardized and work was typically coordinated using portals, as described by our key informants in the following section.

The Dana Foundation and Diesel Direct had scheduled monthly meetings with their primary cloud service provider and initiated ad hoc meetings as circumstances dictated. Cloud services were monitored and adjusted as needed using a portal. In addition, key informants also spoke of trusting their providers (TDF), viewing them as partners (DD), and sharing interests with them outside the cloud relationship (Art-World).

At The Dana Foundation, the Director of IT had monthly meetings with the Account Manager from the IaaS provider. The partners discussed the invoice, reviewed the inventory of computer resources, and checked that everything was sized properly and monitored properly. In addition to scheduled monthly meetings, the Director of IT had full monitoring capabilities, so he could request ad hoc meetings to ask questions about how a resource was performing, either poorly or out of the scope.

Table 7.5 Relationship governance

	The Dana Foundation	Diesel Direct	Art-World
Scheduled meetings	Monthly	Monthly	None
Ad hoc meetings	Rarely	Frequent	Rarely
Monitoring	Portal	Portal	Portal
Softer issues	Trust	Partnership view	Shared interests

However, the Director of IT said he had only contacted the provider one time outside the monthly meetings, and that was to discuss preparations for Hurricane Sandy. He said:

We just wanted to know what their contingency plan was because the hurricane's path was basically going right towards the Boston data center. They assured me that if needed, they could transfer their resources to the Houston facility.

There was no downtime during or after the hurricane. The Director of IT trusted the provider, based on a proven track record.

As a previous provider, Diesel Direct's CIO placed a great emphasis on treating the cloud provider as a strategic partner. The CIO, for example, did not seek any penalty clauses for non-performance. Instead, the parties worked together to decide how to best ensure availability through the resident duplication in two data centers. The CIO said:

We both made the investment in insuring availability. We both felt that we are both making the right decisions rather than looking at it as strictly a vendor-customer relationships with those types of penalties.

The provider's account manager met monthly with Diesel Direct to review the invoice and report on any incidents. Relational governance was facilitated by a portal where the CIO or his staff could monitor performance, submit requests, or report incidents. The contract also specified a conflict resolution escalation process, but the CIO reported that nothing had ever escalated beyond him. He said:

I will tell you that nothing has gotten any further than me. They have handled everything that we have had any issues with. They aren't perfect... There are some things that they have had hiccups on in the past, but we have always been able to work with them.

The technical staff at Diesel Direct and its cloud provider also developed some close relationships. For example, someone from the CIO's staff could contact the provider's SQL expert to ask about a slow data-

base: “We can give them a call and talk to them like as if they were our own employees.”

Art-World primarily interacted with its cloud provider online; it could scale resources up or down through the portal and submit ticketing requests online. The main personal contact was with a program manager to make suggestions for new features and enhancements to the services: “We have very good working relationship with the people actually building their software.” The cloud provider reacted early on to implement one of the biggest features requested by Art-World. In addition, Art-World developers worked on some open-source projects with the cloud provider.

Provider Performance

How did SME clients rate provider performance for cloud services? The key client informants were asked to rate the level of satisfaction with the overall performance of their cloud provider using a seven-point Likert scale, with 1 indicating “completely dissatisfied” and a 7 indicating “completely satisfied” (see Table 7.6). We also asked about the provider’s level of service quality using a nine-point Likert Scale with a 1 indicating “inferior performance” and a 9 indicating “superior performance.” Informants rated overall *reliability of service* (the ability of the provider to perform the promised service in a dependable and accurate manner; the service is performed correctly on the first occasion; the accounting is correct, records are up to date and schedules are kept), overall provider

Table 7.6 Satisfaction with provider performance

	Scale	The Dana Foundation	Diesel Direct	Art-World
Overall <i>satisfaction</i> with cloud provider	1–7	7	5	6
Overall <i>performance</i> of the cloud provider	1–9	9	8	6
Overall <i>reliability</i> of service	1–9	9	9	9
Overall <i>provider responsiveness</i>	1–9	8	7	6
Overall <i>provider assurance</i>	1–9	9	7	8
Overall <i>provider empathy</i>	1–9	8	8	7

responsiveness of service (the readiness and willingness of the provider to respond to client requests promptly), overall *provider assurance* (the provider is knowledgeable and qualified and conveys trust and confidence), and overall *provider empathy* (the provider shows genuine care and concern for your organization). Clearly, clients from all three cases were highly satisfied with the performance and quality of service received from their cloud providers.

Business Outcomes

The key informants for this research all reported significant business value from cloud services. The key client informants were asked to rate the level of satisfaction with the overall business value the client organization is getting from cloud services using a seven-point Likert scale, with 1 indicating “completely dissatisfied” and a 7 indicating “completely satisfied” (see Table 7.7). Clients from all three cases indicated they were “completely satisfied.” Each informant also described the business outcomes from cloud services, which include cost savings (both significant and minor), better service, better work-life balance for in-house IT staff, scalability, flexibility, and simplicity.

Overall, The Director of IT at the Dana Foundation estimated that moving to IaaS, SaaS, and PaaS produced an overall savings of 85–90%.

Table 7.7 Business value delivered

Scale	The Dana Foundation	Diesel Direct	Art-World
Overall <i>satisfaction</i> with business value of cloud services (7 point scale)	7	7	7
Main business value	<ul style="list-style-type: none"> • Significant cost savings 	<ul style="list-style-type: none"> • Better service • Improved work-life balance for IT employees • Minor cost savings 	<ul style="list-style-type: none"> • Significant cost savings • Scalability • Flexibility • Simplicity • Refocus in-house staff

As far as IaaS was concerned, the adoption of cloud computing did not reduce the number of internal IT employees, but the savings from replacing the outsourcing provider that previously handled technical support with cloud provision were more than 65%—worth “hundreds of thousands of dollars” according to the IT Director. For SaaS, he also expected significant savings:

Eighty percent of our process is paper and all of the associated costs associated with managing that paper is tremendous. As we moved our grants management system to [Salesforce.com](https://www.salesforce.com), that saved money through improvement of process and the elimination of paper.... I fully expect low to mid six figures savings just from that alone.

Diesel Direct was able to achieve minor cost savings by canceling a contract for database and desktop maintenance with a contracting firm. The in-house employees took over desktop support since they had time freed up as a consequence of IaaS. The real value of IaaS comes from the superior services. The databases and servers were resident in two of the IaaS provider’s data centers, one in Virginia and one in California, and they were 100% available, which provided Diesel Direct with data redundancy and disaster recovery that they did not have with in-house provision. Additionally, the in-house staff no longer had to work in nights to run some of the processes or be on call to monitor servers. The CIO said of business outcomes:

Again, we were not looking at a vast number of cost savings but looking to grow the business and grow it without killing the staff and killing end user satisfaction as well as customer satisfaction. The value is in the flexibility of being able to provide that fast performance of the system when we need it and not struggle as we did before. Everybody knew: Mondays is going to be slow; that type of thing doesn’t happen anymore. “We can’t get that report for you because we are running another process.” So that type of value and customer satisfaction has been very large.

At Art-World, the Head of Engineering was very pleased with the value delivered from cloud provision. Pertaining to costs, he estimated a

30–40% reduction in server costs using cloud compared to buying his own servers and hiring more staff. He said, however, that as organizations get bigger, the costs between rent and buy start to even out. The sustainable advantages were scalability and speed of deployment. Simplicity was another benefit:

I don't have to deal with switchers and routers...[the cloud provider] provides me with virtually infinite bandwidth and machines. This allows me to spend more of my money on developers instead of infrastructure people.

Small and Medium Enterprises Insights

We examined cloud adoption, cloud drivers, cloud barriers, stakeholder buy-in, provider selection, contractual governance, relational governance, provider performance, and business value of cloud services outsourcing in SME clients using key informants and a survey. The key informant data provides evidence of the value that cloud services outsourcing can bring to SMEs:

1. *Cloud can provide performance improvements and business value for SMEs.* Our three organizations all described high levels of satisfaction with the business value of cloud services and with cloud provider performance.
2. *Cloud can be an IT equalizer for SMEs.* The evidence suggests that cloud services outsourcing is an IT equalizer for SMEs. From the case studies, cloud services outsourcing enabled the SMEs to harness the same infrastructure and software as large client firms without the prohibitive upfront capital costs of buying servers, paying hefty software licensing fees, or hiring additional IT staff during start-up or early stages of growth.
3. *Major outsourcing processes are less complex for cloud services.* For these SME client firms, the processes for provider selection, stakeholder buy-in, contractual governance, and relational governance were less complex compared to cloud adoption in leading global firms.

Insights from Leading Global Firms

By 2015, many corporations had been doing cloud computing seriously for several years. For example, Proctor & Gamble, Johnson & Johnson, Allergan and Sears Roebuck & Company, had already moved from adoption to the next stage of use and beyond. Seeing the IT function as a strategic partner, senior business executives in these companies, together with their CIOs, had identified how cloud computing deployment could align with dynamic business strategy over time. Also how it could be operationalized, including with external service providers, for strategic business advantage. In the most advanced corporations we have studied, especially Commonwealth Bank of Australia (CBA) and Proctor & Gamble, a third stage has seen the CIO more as a business innovator in constant dialogue with the board, while IT and cloud computing became the subject of large-scale and disciplined multi-supplier outsourcing. To give a flavor, let us look at the developments at CBA.

Commonwealth Bank of Australia—A Case in Point

If leaders in corporate cloud computing adoption share many practices, it is also true that in our research we found each leader being innovative and distinctive in aspects of its move to the cloud. Let us take one example, the CBA. By 2015, CBA employed 50,000 people, of which 6000 were in IT and Operations. CBA managed total assets of AUS \$800 billion (approximately US\$750 billion).

Considered to be among the top 20 IT consumers worldwide, CBA had acquired a strong reputation for the strategic use of IT. By 2010, CBA saw a number of drivers and inhibitors for moving to Cloud. The main drivers were as follows:

- *Variable costs* through IT-as-a-service/pay-as-you-go instead of fixed costs and guaranteed volumes
- *Competitive costs* from many providers in the market instead of upfront agreement with one or a few providers

- *Rapid provision* of new environments and hence *reduced time to market*
- *High total volume of IT* and variable workloads
- *IT leadership commitment* to cloud
- *Successful prototype* (Oracle platform) as proof-of-concept implementation
- Multi-provider cloud promised *increased flexibility and scalability*

At the same time, CBA identified a number of barriers:

- *Existing contracts with large providers* that had substantial knowledge about CBA and on which the bank had long relied
- Internal *cultural barriers* to cloud computing
- Security and availability concerns
- *Regulatory framework* prohibited certain options for data storage in the cloud
- Perception that existing *in-house virtualization* already provided some *scalability*
- Perception that existing conventional *multi-provider sourcing* already provided some *flexibility*

In the event, the drivers won out and the barriers were dealt with. CBA arrived at a distinctive and innovatory approach (Schlagwein et al. 2014). This leading financial institution, between 2010 and 2015, implemented a cloud computing market for their IT-sourcing needs by using technical standards and flexible short-term contracts. This market was open for many cloud infrastructure providers as sellers, yet CBA was the only buyer—see Fig. 7.1.

Through this market, CBA gained the flexibility to move workloads dynamically between providers, and the ability to take advantage of competitive pricing at all times. In this way, CBA moved toward pay-as-you-go IT. Through cloud computing, IT infrastructure and maintenance costs in regard to software development and provision had fallen, for example, by around 40%. We also found that the time to market for new applications and services had been reduced by four to six weeks. For IT

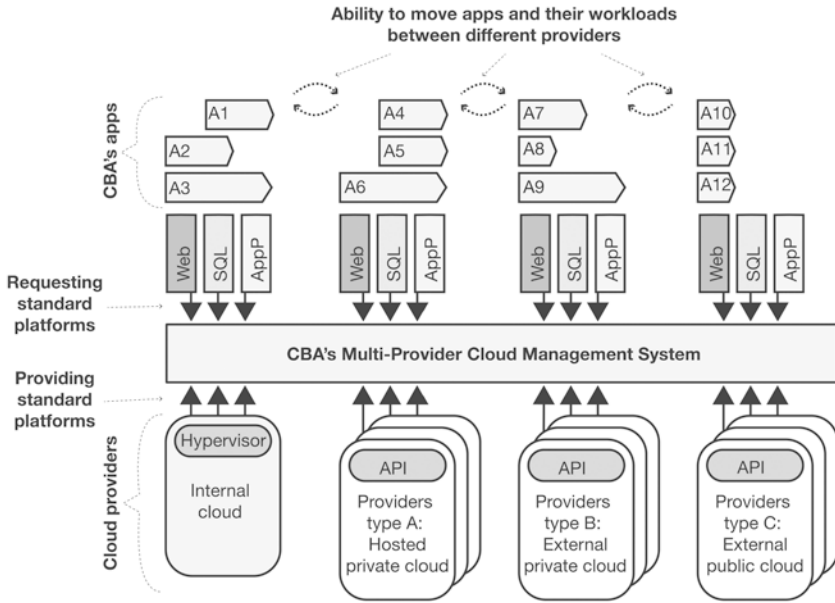


Fig. 7.1 CBA's multi-provider model of cloud computing

executives of other large companies that are considering cloud computing, our analysis of CBA strategy provides five major lessons:

- Define and enforce technical cloud standards across providers to allow switching between providers.
- Negotiate flexible, short-term contracts with sets of cloud providers to allow for market pricing at any point in time.
- Retain internal capabilities in the IT function to allow it to become a competent IT broker able to integrate external and internal IT resources and to design state-of-the-art overall IT solutions.
- Prioritize your cloud transformation and keep “non-cloud-able” applications off the cloud until life-cycle events allow for an economically viable move to a cloud.
- Engage in industry-level cloud standard setting efforts and adopt the resulting standards early.

General Lessons from Leading Global Firms

There are some general lessons across the leading organizations we have studied. The organizations that advanced the most in their use of cloud computing first established cloud fitness criteria. These included whether data sensitivity is low or medium, whether loading is low, unpredictable or highly variable, and whether cloud is easily integrated. Also critical in examples we have seen were the ability of cloud computing deployment to spread loading, speed to market, and cost transparency. The move to cloud computing almost invariably was also expected to reduce costs. Cloud computing required clear policies. The leading corporations avoided creating their IT and business silos in the cloud—cloud computing was seen as an opportunity to reengineer. Internal applications were developed to be cloud ready. In addition, internal IT skills were being converted from “build, plan and run” to “source, architect/integrate and (business) exploit.” For cloud computing, leading corporations were prepared to run distributed applications components, build in tolerance for failure, move to service-oriented architecture (SOA), enable third-party services, and at the same time have a written and approved exit strategy for each and every cloud computing solution, to get data back in a usable form.

Here, we present the insights across all enterprises, with illustrative examples from four leading global firms across healthcare, manufacturing, retail, and media. Across the cases, approaches to cloud varied—including a mixture on internal, external, and hybrid services. While each case illustrates a different approach to cloud adoption, there are strong common themes in the management practices, skills, and architectures being put in place. The four organizations are Proctor and Gamble (P&G), Johnson and Johnson (J&J), News Corporation (NewsCorp), and Sears Roebuck (Sears).

Lesson 1: It's Not “Just” About Costs

Cost is a necessary constraint but not the only decisive factor. For example, P&G operated an internal cloud solution for IaaS and P&G had at

least 30 applications delivered by SaaS, with another 10 in discovery. These included applications such as [salesforce.com](https://www.salesforce.com), [box.net](https://www.box.net), travel sites, corporate travel sites, and other specialized solutions in the area of R&D, off innovation management. While this only represented approximately 5% of its total 2000–3000 internal applications, nearly one-third of all new applications were being delivered by cloud.

P&G had three key criteria for evaluating cloud. First of all: Is the data sensitivity medium or low? Is the processing load low, unpredictable, or unknown, or highly variable? And finally: Are the data integration needs few and simple? If yes, then the application is a potentially good fit for the cloud:

Our message to our internal customers is not, “You should go to the cloud.” It’s more like, “If the following three criteria are true, you should consider going to the cloud but even then you should make a commercial comparison between an in-house and a cloud solution.”—Cloud Strategy Manager, P&G

The other big driver was agility, in particular rapidly setting up environments and doing large testing or computations. For example, needing 500 virtual machines for just three days to do a certain computation:

No company, like P&G, just has 500 unused virtual machines for someone in R&D to rent them for a few days. We don’t have the scale for natural fluctuation for 500 machines.

J&J is another company with strong adoption of cloud. J&J operated an internal IT shared services organization called ITS across the J&J business. Cloud as at 2014 represented less than 5% of J&J’s IT operating budget, but as cloud moved from niche to mainstream IT, it then offered an internal service for brokering access to the cloud. For IaaS, ITS brokers accessed to the Amazon cloud and other cloud providers to coordinate requests from thousands of different projects as well as R&D and other computer-intensive areas. For SaaS, IT brokers access to approximately a dozen applications (such as [Salesforce.com](https://www.salesforce.com) and NetSuite) directly with the business and there was strong demand across its business units.

J&J also advises its businesses against seeing cloud as a cost reduction:

Yes, there may be some cost savings here and there, but in general, but we don't see this as a cost reduction. Although, we do admit that you will get better cost transparency which may lead to better management that could lead to cost reduction.

Instead, J&J highlighted the requirement for flexibility and speed. Self-provisioning was an important capability to be able to allocate what was needed and move off traditional data center services, in particular for applications with high peak utilization:

Something that might have taken two weeks of computing in the traditional mode we have utilized cloud to reduce it down to two hours and in some cases 20 minutes.

While there were potential benefits, enterprises remained conscious of security, privacy, and technology risk. This brings us to Lesson 2: Protect your data.

Lesson 2: Protect Your Data

In one survey, we asked the clients, providers, and advisers: “to what degree do you believe security concerns are based on fear or reality?” Participants indicated their responses using a seven-point scale ranging from 1, meaning “Security Concerns are based mostly on fear” to 7, meaning “Security Concerns are based mostly on reality.” Across all the communities, the average response was 4.47, indicating a slight lean toward security concerns as being based on reality. Combining this result with the result from previous questions, survey respondents clearly acknowledged that security concerns were valid but that they were not preventing organizations from adopting cloud services.

To address security and privacy concerns, P&G developed their specific cloud policy from January 2012. The cloud policy had six elements to it:

1. *Data separation.* While multi-tenancy in Cloud is a necessary ingredient of the commercial model to ensure scalability, there needs to be appropriate logical data isolation controls between enterprise data and other tenants data. P&G did not require physical isolation, however, they made sure they were satisfied that data isolation controls were effective, that is, that logical separation of customers in their application logic and/or in the database is in place.
2. *Encryption and data access.* With data contained on shared and scalable (up and down) storage resources, storage may be allocated to other customers. If one customer gives back a gigabyte of storage to a provider, the provider is not necessarily required to zero it out. The next customer that happens to get that gigabyte of storage may, in principle, be able to read whatever was last written on that disc. As such, P&G required encryption so that data was not readable to anybody else. In addition, all “in flight” data must be encrypted when being accessed.
3. *Rules for privileged access.* Privileged access enables an individual to take actions which may affect computing systems, network communication, or the accounts, files, data, or processes of other users. Privileged access is typically granted to system administrators, network administrators, staff performing computing account administration, or other such employees whose job duties require special privileges over a computing system or network. P&G required specific rules to be detailed for privileged access of cloud applications.
4. *Logging and breach disclosure requirements.* Logging includes events such as logging-in and logging-off for failed and successful log-ins. Where there is a breach of security leading to the accidental or unlawful destruction, loss, alteration, unauthorized disclosure of, or access to, personal data transmitted, stored or otherwise, this had to be logged and disclosed to P&G.
5. *Authentication requirements.* Authentication supports the establishment and ongoing confirmation of identity. P&G mandated cloud solutions to use their standard federated identity solution (used across Cloud and non-cloud). This allowed P&G users to use their normal P&G password to log in, which was good for usability because they did not have to remember yet another password, and good for security,

because P&G had control over the user population. For example, if P&G terminated an account, it was also terminated on all cloud applications, not just on the internal application.

6. *Exit strategy.* There are many reasons why a cloud provider may terminate the service, for example, Amazon terminating the service to WikiLeaks in 2010 for essentially political reasons. Most of the cloud providers do reserve the right to unilaterally terminate the service with only one month's service fee as compensation. As a cloud tenant, enterprises may also choose to terminate an agreement for their own reasons, for example, being drawn into a cloud provider reputation problem. As such, P&G required a written and approved exit strategy for each and every cloud solution to get data back in a usable form so that it could be transferred to a different cloud provider or in-house.

The exit strategy is easier the lower the layer, for example, IaaS is easily transportable because it is typically raw computer resources, like virtual machines and storage, which by their nature are relatively easily transferable. However, for SaaS, it is more complicated. Data in the data form of proprietary SaaS, which by nature is proprietary to that application. At P&G, any exit strategy supplemented existing Business Continuity Plans (BCP) and was tightly related because of needing the data for continuous operations.

Cloud policies supplement and complement the existing IT policies within an organization. Critically, cloud does not alleviate the need for mature IT management practices including a strong policy development processes, and exception and escalation processes and ongoing monitoring and review.

Other mature IT management practices were being applied to cloud as well, such as Lesson 3: Don't rebuild silos.

Lesson 3: Don't Rebuild Silos

Typically no application or solution is an island; it needs to talk to other components. Enterprises require integration of data and processes across the different applications. Without integration, the enterprise risks duplication of data, inconsistent data and fragmented data. Integration points

may be from the cloud to internally hosted enterprise applications, as well as cloud-to-cloud integration.

In our leading case examples, the practices for managing the integration between internal applications extended to managing cloud solutions. For example, at P&G they invested over many years in developing an enterprise application integration backbone, moving away from point-to-point connections, and establishing reusable subscribe-type integration services.

P&G had two main enterprise integrations solutions for integration between local enterprise solutions as well as with cloud solutions. The first was the SAP™ system integration solution. The other, for use between two non-SAP systems, was Tibco™. These tools scaled well to support cloud services. In addition, P&G experienced the need for cloud-to-cloud integration and had investigated solutions for this. Examples of commercial products included Dell's Boomi™ product.

Similarly, J&J had one of the largest data integration platforms in the world, built on webMethods™. J&J used webMethods to communicate between internal applications. They built mature tools, skills sets, and management practices to manage this over time. J&J used their integration platform for most data transferred across systems. It was published into webMethods and then other web applications subscribed to it to access it. This included external applications and large file transfers because it guaranteed delivery, had full tolerance, and had on it adequate monitoring for high availability. J&J did not see Cloud solutions working differently:

Billions of transactions a week go through this thing. It is how we integrate. If there is an cloud application that needs information, e.g. [salesforce.com](https://www.salesforce.com), that is going to go through webMethods.—senior executive

In parallel with their integration platform, J&J had a master data management environment, governance, and practices to manage data such as: global product catalogs, customer lists, financial master data, and HR master data. While J&J looked to extend their webMethods platform to the cloud in the long term, in the interim, they ran cloud-to-cloud integration requirements through their internal integration platform.

The challenge for cloud integration is not to re-create the practices of the past where businesses established siloes of applications each with their own technology, process, and data. Key management practices and skills are still required to be developed around IT governance, enterprise architecture, compliance and exception processes, standards teams, and central funding of infrastructure (such as authentication and integration).

As enterprises move to more modular (and distributed) architectures, this requires different practices for building applications. This is Lesson 4: Be cloud ready.

Lesson 4: Be Cloud Ready

What does cloud computing mean for the application developers and application managers? The leading firms we interviewed see a paradigm change for application developers in how they design their applications to take advantage of the cloud or, not necessarily to go to the cloud immediately but be cloud ready.

At P&G, one of the key roles for the cloud strategy architect was to raise awareness for application developers on how they must design their applications differently. In the cloud, applications must:

1. *Be prepared to run distributed.* Applications may run distributed on any virtual machine. All application components need to be able to be distributed.
2. *Manage own performance and resources.* Developers cannot rely on data center people to monitor performance and allocate additional processors or disks. This needs to be done within the application, for example, to call an API to add another virtual machine or another gigabyte of storage.
3. *Build-in tolerance for failure.* Applications need to be more tolerant of hardware failure because in the cloud world there may be thousands of virtual machines and some of them might fail. There is not one big server with high internal redundancy that almost never fails.
4. *Operate in an SOA.* While SOA has been espoused as good practice for many years, cloud computing accelerates and the need for SOA prac-

tices such as the need to modularize and abstract components as well as late binding, and loose coupling that enables distributing components over the cloud without having to know the service provider or location. One respondent told us:

The SOA model of a few years ago is now a necessity in the cloud.

5. *Enable third-party services (e.g. authentication).* Applications have to be written in a way that enables a third-party authentication service and can live with multiple identity sources. For example, when a user logged into [salesforce.com](https://www.salesforce.com) with a P&G email address, the application knew to call P&G federated authentication engine.

Each of the changes to be cloud ready highlights the highly distributed nature of cloud computing. Being able to relocate computing load offers key benefits for disaster recovery and also allows relocation of the load at the enterprises discretion. This is Lesson 5: Build in transferability.

Lesson 5: Build in Transferability

Transferability of cloud services is an important strategic consideration. While P&G and J&G were reliant on their individual providers for Disaster Recovery, global media company NewsCorp took a different approach. NewsCorp leveraged hybrid cloud-based services for the delivery of its editorial transformation.

When we researched them, NewsCorp had over 1500 applications. In total, 142 significant ones had been rationalized, with the goal of reducing to 50 key applications, half of which were being run in the cloud. The cloud services were operated across two active clusters—within a public cloud provider as well as replicated internally.

NewsCorp had a full replica on environments, which could be used to mix and match loads across environment. Load could be transferred between production environments, with a 43-minute swap time. In addition to improved Disaster Recovery capability, cloud had enabled more agile ways of moving resources between providers. However, enterprises

need to be aware of how to transfer virtual machines even between seemingly similar environments. For example, one provider may have the Microsoft virtualizer and one could have the VMware virtualizer. While there are ways to convert between the two, there need to be an understanding of the differences and processes to transfer the two.

Increasingly, enterprises are expressing a desire for being able to transfer cloud workload between providers to isolate against a specific cloud provider and also be able to switch load based on cost.

The virtualization of IT infrastructure and integration of applications requires new technical skills. This brings us to Lesson 6: Develop new skills and capabilities.

Lesson 6: Develop New Skills and Capabilities

While previously, there was an internal engineering team responsible for building servers and storage, J&J moved engineers from building platforms to provisioning cloud services. New roles were emerging, such as cloud relationship managers to understand business needs and work with business teams to help shape their requests:

Those business unit teams still need someone to help them with: “What do I need? How much process and capacity do I need? How much storage do I need? What should I pay for?”

The roles of architects were changing as well. Architects were being confronted with cloud solutions every day so they had to understand at least the basics to be able to judge a design that incorporated a cloud component and how they would integrate. Their role included encouraging the right architectures for using cloud and the right individual solutions within that. News Limited, for example, talked about their “IT infrastructure architects becoming integration architects.” Once provisioned, the cloud relationship managers had also to manage the external or internal service providers to provide end-to-end business solutions.

But Cloud is also changing the role of IT. Lesson 7 is IT’s new role—“broker, integrate, exploit.”

Lesson 7: IT's New Role—"Broker, Integrate, Exploit"

As enterprises adopt more cloud solutions, they are moving from a traditional "design, build and run" model to a "broker, integrate and exploit" model. This requires new skills. For example, as cloud moved from niche to mainstream J&J's Internal IT shared services organization (ITS) offered an internal service for brokering access to the cloud. For IaaS, ITS brokers accessed the Amazon cloud and other cloud providers to coordinate requests from thousands of different projects as well as R&D and other computer-intensive areas. For SaaS, ITS brokered access to approximately a dozen applications (such [Salesforce.com](https://www.salesforce.com) and NetSuite) directly with the business. ITS worked with business unit teams to shape their request and deliver it to the cloud provider.

A critical requirement for integrating solutions is visibility. By ensuring that cloud solutions used the internal authentication services, ITS was able to track and monitor cloud solutions. ITS could ensure consistency of contract terms, GxP compliance, consolidated billing, and the like.

As the focus moves more to applications and data, this lifts the role of IT to "Exploit"—how to ensure the business gets value from the data in the platforms. For example, as Sears, Roebuck & Company (Sears) built its cloud capabilities, it developed a reputation for transitioning processing and data to the cloud. Thus, the transition of mainframe and data warehouse processing workload to cloud saved over \$500,000 per year in processing costs. Sears became known for one of the largest Hadoop™ implementations in the world.

In early 2012, Sears decided this was a revenue opportunity, so they built a subsidiary, Metascale (<http://www.metascale.com>), in particular around data management in the cloud with Hadoop™. Sears subsequently built, consulted, hosted, managed, and helped people implement Hadoop™, particularly in larger enterprises. Metascale provisions clients with a certain capacity and that can be changed on a monthly basis by customers, on a flexible cloud model. They pay no upfront capital and just pay for the capacity they are using through the minimum contract. There is a buyback option and there is a build, operate, and transfer model, if clients want it.

Metascale subsequently worked with internal and external clients to provide technology, talent, and solutions to help enterprises accelerate their big data efforts and generate value from their data.

Lesson 8: Embrace Innovation Through the Inevitability of Cloud

While only a small percentage of applications were in the Cloud by 2015, the number of new applications in the cloud subsequently to 2018 had become significant. Increasingly, innovation is being seen as a key driver enabling innovation across IT, process, and strategy domains. Our previous work (see also Chap. 2) suggests three types of innovation, and cloud can support all three:

- *IT operational innovations*—technology and IT operational and personnel changes that do not impact firm-specific business processes;
- *business process innovations*—that change the way the business operates in some important ways; and
- *market (business product/service) innovations*—that significantly enhance the firm’s product/service offerings for existing customers or enable entry into new markets.

In our 2014 book *Moving To The Cloud Corporation*, we described how organizations were increasingly moving from seeing cloud as a technical innovation, through to a source of process and business model innovation and, indeed, potential competitive advantage. Even more than previous information technology applications, cloud greatly increases the possibilities for further innovation. Indeed, as described by Chief Technology Officer (CTO) of Chevron, Tom Bell:

New innovations, driven by venture capital funding and desire for rapid scaling and deployment, are demanding cloud. Organisations who want to innovate, will have not a choice but to embrace cloud.

This leads to Lesson 9—how exactly do leading organizations innovate through Cloud?

Lesson 9: Learn *How* to Innovate Through Cloud

With cloud, innovations are likely to be radical and disruptive, if over a longer time period than many have been anticipating. From a business perspective, these technology innovations will have a cumulative impact on the possibilities for more business-focused innovations. Here is how P&G operates:

[P&G] We have an enterprise architecture based on five guiding principles, and one of those is that we never automate the app, never automate the process as-is. Always re-architect the process. And standardize it, and simplify it, before automating it.

[P&G] We presented the business process architecture to the main board of P&G. And we're doing a business process mapping, and a business process standardization, and then business process re-architecting, given that we now have things like social computing. We now have a lot of mobile, always on devices.

But there is a bigger picture on innovation. Our research envisages changes in the IT supply market and in the internal IT function. This suggests a medium-term situation in which organizations (and consumers) collaborate and interact through configured business services provided from the cloud. Once in place, this will allow third parties to be directly integrated within enterprises—accountants, suppliers, regulators, for example. The traditional role of the systems integrator might thus become, in effect, that of a business integrator—connecting real business services together—rather than worrying about technology. That is one kind of innovation, and a platform for further developments.

For most organizations, such a change would improve their processes, free IT staff time to have a business and strategy focus, and allow a much easier relationship with suppliers of services. Such a change is an evolution rather than revolution—what in our book *Moving To The Cloud Corporation* we termed “incremental innovations” (see Table 7.8) on the existing outsourcing path, albeit with certain “architectural innovations” which improve processes and technologically advance the organization’s business (see Table 7.8).

Most organizations must be, to some extent, ambidextrous. That means that alongside incremental innovations they must also continually seek to explore new ground (Willcocks et al. 2013, 2014). As a radical innovation in technology, cloud computing thus offers organizational units a chance to alter radically their business services—most probably through innovation and collaboration beyond the enterprise.

We believe therefore that, for innovative organizational units, cloud computing may provide a platform for radical innovation in business process. A summary of the possibilities is shown in Table 7.8.

Lesson 10: There Is No Single Way to Get There, But...

We have found that among leading organizations during the 2014–2018 period, these nine lessons all resonate strongly. However, we have also seen in these and other cases of success, that the enterprises each chose a different starting place to progress their journey toward cloud computing. We do not, therefore, suggest that there is any single best way. For example, considerations of internal versus external cloud will be driven by cost (and which market you are in), installed base, sourcing arrangements, and market opportunities. The speed of cloud adoption will depend on your ability to evolve requisite internal capability and harness the service provider market judiciously. Integration issues may be much

Table 7.8 Cloud computing as the infrastructure for business services within an “ambidextrous” and agile organizational form

Innovation focus	Proposition	Cloud services
Incremental innovation	Cost control through consolidation and virtualization. Direct replacement of Apps with SaaS	Virtualization, Hybrid Clouds, IaaS, SaaS
Architectural innovation	Improvement in business processes; increasing mobility; increasing	Mobilization, consumerization, PaaS, IaaS, SaaS
Radical innovation	Skunk-work IaaS, collaboration (intra- and inter-organizational)	Elasticity, Consumerization, Market based, PaaS, SaaS

more difficult to deal with in some organizations, less so in new organizations, and cloud pure plays.

What we would suggest is that the journey toward cloud is a strategic one, requiring action today and practices to be developed over time to be in a position to harness the strategic benefits of cloud and respond to the changes it will bring about in the competitive and social environment. We see this is a journey from today’s use of cloud in selected “sweet-spot” areas, to rapidly expanding (as seen at News Limited), to then being embedded within enterprises business environment (Fig. 7.2).

Additionally we would argue that, if there is no one best way of achieving this evolution, nevertheless cloud governance is a common issue that needs to be got right. CEOs need to have key stakeholders from strategic business units (SBUs) and IT set a policy for who has the authority to adopt cloud services. This is a key common issue across cloud adoption, so let us look at it close-up.

CEOs might assume that cloud services evaluations are safely in the hands of their centralized IT departments. This assumption is likely wrong. According to an Accenture 2013 cloud computing survey, 78% of cloud procurement comes from SBUs and only 28% are from centralized IT departments. The phenomenon of bypassing the centralized IT department to buy cloud solutions on the sly is so persuasive, that it

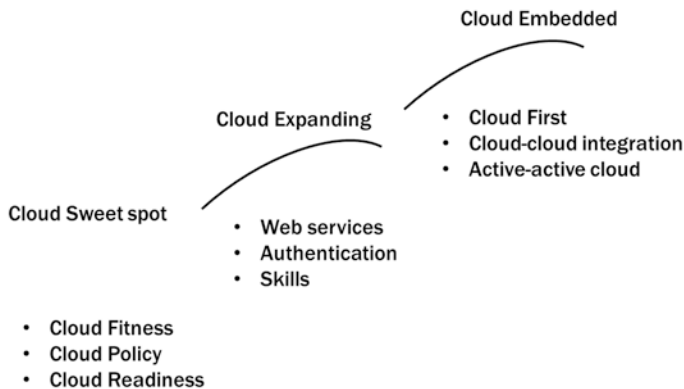


Fig. 7.2 Cloud journey

has been dubbed “stealth adoption.” We understand why SBUs procure cloud services on their own—they are looking to quickly meet business needs.

SBUs are also looking to avoid the slow processes of centralized IT request systems. Large organizations have tremendous investments in IT resources and governance processes, which can delay deployment for the SBU. An SBU’s request for additional servers from a centralized IT department may take three months internally. Because the process can be long, SBUs are incented to inflate their requests internally to avoid having to revisit the process if additional resources are needed. The Senior Vice President for one of the providers we interviewed said: “SBUs would rather overprovision so they have some buffer space.” For SBUs, cloud provision happens much quicker. However, as multiple, ad hoc cloud adoptions occur across SBUs: “The next thing you know you have other problems. You have this sprawl and you need to figure out how to manage it.”

Decentralized adoption may expose your company to big risks. Are your SBUs putting in safeguards to protect data? Are your SBUs picking the right providers? We have learned that many new technologies woo SBUs to bypass a centralized IT department at first, only to cry for IT’s help with security, backup, data conversion, and vendor management later on. We have seen similar adoption patterns for end-user computing, client-server technology, and offshore outsourcing. In offshore outsourcing of applications development, for example, we found that SBUs were hiring Indian firms to develop applications. At one Fortune 100 manufacturing company, the CIO discovered 50 engagements with Indian providers in the SBUs, some of which had vastly different prices and service guarantees with the same Indian provider. The CIO eventually took control of these relationships, reduced the number of contracts to 15, standardized SLAs, and vendor management processes to yield huge cost savings and better results.

These examples suggest that not having a clear migration path and cloud strategy, and not having the right cloud governance regime will be inevitably time-consuming and throw cloud adoption and business value way off track.

Does Firm Size Matter?

Thus far, we clustered the cloud adoption stories into SMEs and leading global firms. How do the cloud findings compare? Does firm size matter? We compared the general findings from the SME and leading global firm cases (see Table 7.9). Firm size does not matter in terms of which types of applications can be adopted and the satisfaction with cloud providers. But firm size does matter in terms of cloud drivers, cloud barriers, stakeholder buy-in, provider selection, contractual and relational governance, and business value delivered. We found that the complexity and severity of cloud management challenges were significantly greater in leading global firms compared to SMEs, suggesting that cloud practices need to be tailored based on size of firm.

Conclusion

These lessons from SMEs and leading global organizations were hard won from early adoptions of cloud computing, and suggest how the challenges being experienced today can be addressed. But executives need to act now if they are going to harness the possibilities that are going to present themselves over the next five years. Because cloud computing is only the beginning.

Our research suggests that cloud computing technologies form the platform for eight other technologies that in combination will achieve massive impacts on the future enterprise. These are social media, mobile internet access, business analytics and Big Data, automation of knowledge work, robotics, blockchain, the Internet of Things, and digital fabrication (Bhimani and Willcocks 2014; Willcocks and Lacity 2016). In the face of accelerating, combinatorial technology, retaining technical in-house capability continues to be critical, not least as a basis for harnessing the ever-developing external IT and cloud computing services market. The ability also to advance technological change within an organizational context and harness it for business advantage remains a scarce resource, but one that can lead to serious sustainable competitive advantage.

Table 7.9 Summary of findings in SMEs

Section	Findings from SME companies	Findings from leading global firm cases	Does firm size matter?
Cloud adoption	Significant adoption of IaaS, PaaS, and SaaS	Significant adoption; 94% have a cloud app by end of 2014	No, small firms can adopt the same types of cloud services as large firms
Cloud drivers	<ul style="list-style-type: none"> • Cost Reduction/avoidance • Scalability • Simplicity • Business continuity • Flexibility 	<ul style="list-style-type: none"> • Cost • Scalability • Time to market • Simplicity • Ensuring high security 	Yes and no, SMEs and large firms have similar but not the same cloud drivers
Cloud barriers	Security concern	<ul style="list-style-type: none"> • Security • Compliance • Managing multiple cloud services • Integration with existing IT governance/control. <p>These issues decline with maturity</p>	Yes, barriers are much more significant in leading global forms
Stakeholder buy-in	Process of education, trust building, and gradual adoption	Complex IT and organizational change issues	Yes, stakeholder buy-in is an easier task in SMEs compared to large organizations with more IT investments
Schlagwein et al. 2014. Provider selection	Less formal process compared to complex ITO services		Yes, provider selection in SMEs is very different compared to large-sized organizations

(continued)

Table 7.9 (continued)

Section	Findings from SME companies	Findings from leading global firm cases	Does firm size matter?
Contractual governance	<ul style="list-style-type: none"> • Off the Shelf • Monthly to 3 year • Unit pricing and add-on fees • Minimal no. of SLAs 	Need to build management structure and relate to existing IT management and contracts	Yes, contractual governance is more complex in large-sized firms
Relational governance	Meet monthly Monitor/control by portal	Need relationship managers and in-house team	Yes, relational governance is more complex in large-sized firms
Provider performance	High satisfaction High service quality	High satisfaction	No, provider performance is not related to firm size
Business value	Highest satisfaction	Very satisfied	Yes, smaller firms realize value almost immediately whereas larger firms realize value over time and get better with maturity in the process of earning

Our parting lesson: It is never wise to overthink the technology and what it can do, and underestimate the human and organizational issues that technologies like cloud inevitably create, and for their optimal use, require solutions to.

Appendix: The Research Base

The research covered the 2011–2015 period in which we carried out three surveys of clients and service providers (2011, 2013, 2014/15), and did in-depth research into the cloud experiences and practices of 75 SMEs and large corporations in Europe, Asia Pacific and the

USA. Representative publications which are drawn upon in this chapter include Lacity, M., and Reynolds, P. (2014). "Cloud Services Practices for Small and Medium-sized Enterprises". *MIS Quarterly Executive*, 13 (1): 31–44; Willcocks, L.P., Venters, W., and Whitley, E. (2014). *Moving to the Cloud Corporation*. Palgrave, London; Willcocks, L.P., Venters, W., and Whitley, E. (2013). "Cloud Sourcing and Innovation—Slow Train Coming? A Composite Research Study". *Strategic Outsourcing: An International Journal*, 6 (2): 181–202. Willcocks, L.P., Venters, W., and Whitley, Edgar A. (2013). "Cloud Computing as Innovation: Studying Diffusion". *Lecture Notes in Business Information Processing*, 163: 117–131. Willcocks, L.P., Venters, W., and Whitley, E. (2012). Cloud Computing and Retained Capabilities: Recent Research. *Proceedings of the Sixth Global Sourcing Workshop*, March 10–13, Courchevel, France; Oshri, I., Kotlarsky, J., and Willcocks, L.P. (2015). *The Handbook of Global Outsourcing and Offshoring*, Third Edition. Palgrave, London. Willcocks, L.P., Schlagwein, D., and Thorogood, A. (2015). *Cloud Computing Research: Trends, Challenges, Lessons*. LSE Outsourcing Unit Working Paper 15/1/, LSE, London; Lacity, M., Reynolds, P., Khan, S., and Willcocks, L.P. (2014). Cloud Services: The Great Equalizer for SMEs? *LSE Outsourcing Unit Research Paper 14/1*. Bhimani, A., and Willcocks, L.P. (2014). Digitization, Big Data and the Transformation of Accounting Information. *Accounting and Business Research*, 44 (4): 469–490. Schlagwein, D., Thorogood, A., and Willcocks, L.P. (2014). "How Commonwealth Bank of Australia Gained Benefits Using a Standards Based, Multi-Provider Cloud Model". *MISQ Executive*, 13 (4): 209–222.

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8

Innovating Customer Relationship Management Cloud Services at Standard Chartered Bank

Graham Costello and Leslie P. Willcocks

Introduction

As we saw in Chap. 7, cloud computing is a rapidly emerging technology with potentially massive impacts. But organizations have been struggling for some time with how best to gain business value whilst addressing the new challenges of yet another disruptive technology. Whilst there is a growing body of research into cloud computing, there have been very few case studies that analyse the business benefits to organizations. This chapter aims to answer the call for research on business issues relating to cloud computing from both a cloud consumer and cloud provider perspective (Venters and Whitley 2012; Yang and Tate 2012), and research investigating business impact empirically (Hoberg et al. 2012). The research builds on extensive outsourcing research, answering the call for more detailed longitudinal case studies (Lacity et al. 2010, 2016).

G. Costello
Milton Keynes, UK
e-mail: grahamcostello@bigpond.com

L. P. Willcocks (✉)
London School of Economics and Political Science, London, UK

Our research into Cloud Customer Relationship Management (CRM) systems adoption at Standard Chartered Bank (SCB) focused on three key research questions (Appendix details research methodology):

- *Identifying emerging value propositions.* Innovations create new potential sources of value. What are the new sources of value that SCB achieved? What new sources of value, business models, relationships, and transactions were achieved? How did interdependencies and relationships change between SCB and their service provider?
- *Establishing context and capabilities needed.* Innovations require the right context. How did SCB and their service provider organize for success? What capabilities were required, and how did they evolve over time? What impact, if any, would there be on future organizations?
- *Managing diffusion and change.* How did a cloud innovation get introduced in a large organization? How was it accepted and implemented? How was it exploited? What were the impacts on ways of working; internal and inter-organizational changes in relationships, cooperation, and competition? What implications are there for the future cloud-enabled organization and further business innovations?

In what follows, we establish the business context to which software-as-a-service (SaaS) CRM was seen as the solution, summarize the CRM journey undertaken and the outcomes achieved, identify eight emerging challenges and how they were dealt with, and then point to one lesson that frames 11 other lessons relevant to those contemplating a similar journey.

Standard Chartered Bank: The Business Context

SCB with revenues of approximately \$20 billion plus per year is a large, diversified financial institution focused on rapidly growing emerging markets in Asia, Africa, and the Middle East. Over 90% of income is from those regions. SCB operates in over 70 countries and territories, in 1700 branches and outlets, with 88,000 staff from 130 nationalities. SCB was first formed in China and India in 1850. SCB's strategy is to be the 'world's best international bank' focused on Asia, Africa, and the Middle East. SCB aims to 'bank the people and the companies driving

investment, trade and the creation of wealth across Asia, Africa, and the Middle East’.

When the Cloud project commenced in 2008, the bank comprised of a wholesale bank (WB) and a consumer bank (CB). The CB was responsible for small to medium enterprises (SME), private banking, and consumer banking. In 2008, it was decided to adopt a more customer-centric strategy. This would be achieved by simplifying how the bank interacted with its clients and customers by standardizing on processes whilst improving efficiency and consistency through improved systems. The two key issues to be addressed were inconsistent staff systems and inconsistent customer experience.

Inconsistency of staff systems was accentuated by dozens of differing CRM solutions across the CB. Systems were fragmented, stand alone, channel specific, and product specific. There was limited coordination of CRM. Staff had to operate up to 15 different systems to serve customers, whilst in some geographical markets, systems were manual or dependent on spreadsheets and ad hoc databases.

Customer experience was inconsistent. Clients filled out paper forms to open accounts or apply for services that were then processed manually in offshore service centres. Customer service requests were difficult to respond to as there was limited visibility of progress of customer service requests and the client’s overall relationship.

In 2008, work commenced on building an integrated sales and service capability (Customer Experience Management System—CEMS) to support the sales transformation agenda—the ‘SCB Way’. How would success be measured? Success would be measured via metrics that looked at driving customer experience, fixing front-line experience, and assessing CRM impact on operating income, sales productivity, and operating profit.

CRM Cloud Services: Scope and Implementation

Here, we follow the Costello (1996) definition of innovation as ‘managing the cycle of capturing knowledge from organizational activities and learning from that knowledge to change behavior and improve organizational

activity' (see also earlier chapters). We will employ the Costello (1996) framework that embodies this definition to analyse innovation throughout SCB's cloud journey. A synopsis of that innovation journey appears in Table 8.1.

In the first three years, CEMS was rapidly rolled out to 26 countries and was used by 14,000 active front-line users. By the end of 2012, the number of users had continued to expand and was over 24,000. By 2015, the usage continued at this level. Daily volume was in the order of 72,000

Table 8.1 Innovation cycle for Standard Chartered Bank CEMS

Activity	Knowledge	Learning	Changed behaviour
<p>2008. SCB managing disparate CRM systems in different geographic markets. SCB initiates new sales and service culture strategy titled 'SCB Way'.</p>	<p>Difficult to aggregate customer data within country much less across region. High cost of previous CRM implementations. Poor adoption. Complex regulatory requirements.</p>	<p>CRM system across all geographical markets accessible for all front-line staff would be ideal. SaaS alternatives are cost-effective. Regulatory solution is possible.</p>	<p>Gained approval for single global CRM. Selected cloud SaaS service. Ceased all other CRM development.</p>
<p>2009. Cloud CRM Service commenced. Piloted in four countries in ten months.</p>	<p>Implementation and roll out to national markets quick, inexpensive, and straightforward.</p>	<p>Adoption better than previous attempts at introducing CRM. Supports 'SCB Way' sales and service cultural change programme.</p>	<p>Gained approval to roll out to remaining geographical markets and to increase functionality.</p>
<p>2010. Cloud CRM rolled out to additional one country for personal banking and additional 11 for SME.</p>	<p>As CRM capability matures, opportunity arises to better integrate sales with service.</p>	<p>CEMS now has more holistic sales and service functionality built on SaaS core services.</p>	<p>Service module internally developed and accessed through SaaS.</p>

(continued)

Table 8.1 (continued)

Activity	Knowledge	Learning	Changed behaviour
2011. CEMS now operating in 26 countries with 14,000 users. 5 more retail countries.	Straight through processing (STP) services lead to significant quality of service improvement.	Requirement to more tightly integrate processes. Need to improve technical integration of data to pre-populate data fields.	Front-line staff provides more immediate closure on account requests.
2012. CRM capability and 'SCB Way' well established across the bank.	Stability of SaaS impacted by large increase in service related call volume.	Routing all transactions through SaaS has caused stability problems. Need to re-process engineer major causes of volume.	Developed stand-alone verification module that did not negatively impact on SaaS stability.
2013. CEMS now operating in 60 countries with 24,000 users.	SCB has developed solid capability in managing SaaS offering.	SaaS has been an effective mechanism to support the SCB sales culture change programme.	Rolling out to additional markets and increasing functionality in those markets. Focus on improving business continuity capability of what is now critical system.
2014. Existing SaaS contract due for renewal. SCB to develop a plan for the next five years and determine best systems support.	Existing SaaS is stable and well received. Some parts of the bank need additional integration that SaaS would have difficulty providing.	Difficult to take free product upgrades due to customization by SCB. Difficult for service provider to maintain due to N—4 version.	SCB has other pressing business priorities. Focus is on stability of service. Upgrade implemented at significant cost.

(continued)

Table 8.1 (continued)

Activity	Knowledge	Learning	Changed behaviour
2015. SaaS contract renewed. SCB infrastructure re-architected.	CEMS a critical system but existing SCB infrastructure not high availability. CRMOD being succeeded by new sales cloud service.	SCB requirement has matured. Key issue is availability for what is now a core system.	SCB planning next generation CRM. Service provider looking to migrate customers to new sales cloud product.
2018. CRMOD still in service despite investigations about alternatives	Existing CRMOD is stable, functional, and cost effective.	Alternative cloud CRM options do not offer sufficient improvements to warrant the expense of migration.	SCB continues to investigate options to migrate to next generation CRM cloud but not a priority.

new sales opportunities, 73,000 incoming calls to call centres, 23,000 new service requests, 32,000 sales conversations, and 10,000 new sales closed. The system was processing over 500 transactions per minute (see Fig. 8.1).

As at 2015, SCB employed CRM On Demand (CRMOD) (SaaS) from a leading vendor, in conjunction with in-house development. The CRMOD component of CEMS was managed as a SaaS private cloud run on SCB hardware in a data centre in Hong Kong.

The CRMOD system supported both the consumer and WBs. Of the 24,000 users, approximately 3500 were in the WB. Each part of the bank has differing requirements for CRM. The CB deals with millions of customers who have multiple specific products such as bank accounts, credit cards, home loans, and so on. The WB has a much smaller number of clients who have complex needs such as cross-border payments, credit, investment loans, and so on. A WB customer could be a large corporate with hundreds of subsidiaries all over the world. A consumer client is likely to be in one country and have a clearly defined business relationship with SCB.



Fig. 8.1 CEMS sales and service capabilities

Outcomes

The key outcome of implementing SaaS was that it proved to be a quick and cost-effective means to support development of a more customer-centric culture at SCB. There was now a foundation capability that supported the cultural change aimed for. Outcomes and performance helped to found a service culture at the bank. Likewise, there was now a technical and operational capability that could be built upon to add value:

I think the thing that we have achieved today is to roll out something that does sit on 26,000 desktops. It is really getting some intelligence down those lines. In India and Singapore, I can send real time alerts to my front line that is a reflection of something that has happened in the world of an individual customer that might be an opportunity for us to service, or sell, or both. That once wasn't possible. The fact that I can do that is a major achievement. The fact that we switched on a complaints management system that was developed in this whole framework. We deployed that to nine countries in a single day. That is the first time in this bank that anything has ever been deployed to more than one country in a day. ... Very importantly you had a network of people who were connected who were able to implement it. We didn't have someone who had to fly around nine countries and say "hello I am from Botswana and am here to help". We have built a network of competent people who could work together.—CIO Consumer Banking.

In practice, CRMOD has played a significant role in SCB achieving its strategic goals. Meanwhile, key performance indicators have continued to improve over the years as indicated in Table 8.2.

Moreover, performance on other dimensions showed significant improvements, in particular, in the areas of:

Fixing front-line experience:

- SCB Way coverage—countries, call centres, branches, front-line staff usage

Table 8.2 Key customer metrics

Key customer metrics	Baseline	2009	2010	2011	2012
Net promoter score	25	25	39	51	55
Complaints per thousand	0.83	0.53	0.49	0.46	0.40
First time resolution	39%	39%	51%	65%	72%
Product per customer	2.73	2.73	2.87	3.02	3.91
Employee satisfaction	4.06	4.06	4.24	4.25	4.26

- CEMS roll out across geographies and functions
- Per cent STP for service requests
- Front-line staff satisfaction

CRM impact of real performance:

- Sales productivity—conversion of new sales
- Operating income
- Operating profit

Cloud and CRM: Emerging Challenges

Given this level of success, it becomes important—and also useful for other organizations contemplating cloud-based CRM—to analyse the challenges along the way and how they were dealt with. We identified eight major challenges.

Challenge 1: How Can Business Value Be Achieved?

Speaking in 2013, the CIO of Consumer Banking observed:

Five years ago Standard Chartered had deployed Siebel in the branches in Hong Kong and Siebel in the call-centers in Singapore. Standard Chartered also had a team in India developing a CRM system for use in India. The Chinese were developing their own system called “Panda”. We had also gained another two systems when we acquired banks in Korea and Taiwan. The Indian development team had been working for four years, spent a lot

of money and deployed nothing. We were about to deploy our seventh CRM system and wanted to deploy something into Malaysia, Thailand, Indonesia and UAE. Clearly this situation was not viable.

At the same time, new bank management was emphasizing a business strategy anchored on improved sales and service, and entitled the 'SCB Way'. Implementation of the strategy was dependent on building robust CRM capabilities. However, previous implementations of on-premise CRM in some of the larger markets had cost over \$50 million:

If you look at the implementations of Siebel in Singapore and Hong Kong, the approach was very much growth focused. The way that the CRM was built out was very specific to their needs without consideration of the needs for the other countries. How is the rest of the world going to be able to afford the same capability? That translates into prohibitively high cost for the rest of the countries. That was a good lesson learnt by us. ... Some of the country markets are very small. You cannot ask them to pay \$2m up front for a solution when the revenue is not there. Therefore, SaaS actually fits our objectives quite well.—CIO Consumer Banking.

On our analysis, four practices proved critical to achieving implementation and business value.

1. *The technology strategy was driven by business owners.* Thus, by way of illustration, the Head of Technology, SCB said:

Primarily business champions as opposed to IT champions drove the process. ... The business's primary concerns were about regulatory compliance, client data confidentiality, and data privacy requirements.

2. *Building buy-in from stakeholders.* Neither of the SaaS providers at the time had services hosted in SCB's preferred location of Singapore. Being able to support SaaS on-premise in SCB's Hong Kong data centre became the key deciding factor. The business was also concerned about how best to ensure rapid adoption of the system as opposed to

spending a lot of time and money building a system only to fail with poor adoption. The top three practices that proved successful in building ‘buy in’ from, and rapid adoption by, stakeholders were:

- SaaS could be deployed quickly, and for the business stakeholders, time to market was key.
- The investment upfront was much lower than building a system.
- The ability to quickly implement a ‘Proof of Concept’ (POC) helped the decision to move moving forward.

3. *Adopting a ‘pay as you use’ pricing model together with phased implementation.* The SaaS ‘pay as you use’ pricing model de-risked what would otherwise have been a significant IT project. The service could be rolled out in phases. As parts of the business reported benefits achieved, the pace of implementation could be adjusted. Likewise, implementing a ‘take it or leave it’ system avoided expending resources on agreeing functional requirements:

If it didn’t work, or the take up was lower than expected, then there were fewer issues to deal with. ... There was less debate about functional requirements and more focus on adoption.—Head of Technology.

The ability to pilot and implement incrementally supported transition and implementation. However, this was also supported by practices we discuss in more detail below, namely:

- Clearly defined scope agreed to by both the bank and the service provider. Given that it was SaaS as opposed to customized software the process was simplified.
- The ability to implement a POC enabled the business to better understand their requirements to deploy the model internally and support it moving forward.
- The high level of familiarization training was key to the team understanding how best to deploy. An in-house capability was built to drive adoption and deployment.

4. *Employing a cloud solution in conjunction with in-house development.* This enabled a rapid roll out, shorter time to market, overcame many of the problems of diverse geographical markets and language, and provided 24x7 service, for an affordable upfront investment and ongoing operational costs.

CEMS was critical in enabling the broader SCB cultural change programme to become more customer centric—‘SCB Way’. The system enabled parts of SCB to better understand the advantages of CRM and to develop a CRM culture. In the WB, it allowed relationship managers (RMs) to see the real value of managing contracts, sharing opportunities, and sharing information across the various businesses.

Challenge 2: How to Integrate Cloud CRM Technically with Internal Systems?

Firstly, integration of CRM with other bank systems is where most of the expense and delay were created in traditional CRM implementations. Normally, it is the CRM system that is heavily customized to limit disruption to extant legacy systems. In the case of SaaS, extensive customization is not an option. Consequently, much of that complexity was avoided. However, that does not avoid a dynamic where the customer is trying to avoid changes to their systems by asking the service provider to modify their service or alternatively using some services in ways that they were not designed for. Likewise, the service provider is trying to keep the software as simple and generic as possible to avoid unintended consequences that impact the vast majority of customers. From the service provider’s perspective, it is critical that all customers are running on the same version of the software. This includes releases that apply patches or add new functionality or services. Otherwise, the degree of complexity becomes exponentially challenging. One lesson learned was on the role of enterprise architecture.

Enterprise architecture enabled exploitation of SaaS. SCB implemented a capability-driven architecture to manage the portfolio of services required.

Services were integrated via an SCB-developed integration layer. The role of the integration layer was to simplify integration of services from other bank systems. Integration with a heterogeneous legacy architecture can raise significant challenges for an SaaS service. For example, it is difficult, or impossible, to customize how the SaaS service operates internally. This often places integration challenges with either the integration layer or legacy systems. As the CIO of SC Consumer Banking described it:

How are your internal applications going to work with a service that is effectively a 'black box'? If you don't understand how it works then the whole system might not work. You need to have a very clear roadmap how you are going to integrate all this moving forward. If you don't, then the SaaS and the internal systems could develop divergent paths. The challenge is that you could end up building two different types of software. And then your frontline would have to deal with two different systems.

Secondly, despite a thorough understanding of the product, there are always unforeseen requirements that emerge over the life of the project that place additional demands on the SaaS:

Because we do not understand what CRMOD can or cannot do, we force it to do something that it can't. Consequently it broke down all the time. This was a good lesson learnt.—CIO Consumer Banking.

SaaS demands very robust architectural practices; ideally, the service should be interacted with exactly as specified. Organizations with strong systems development skills, but less disciplined architecture capabilities, are tempted to try to work around what they see as limitations. The service provider—Oracle—had been operating SaaS for many years and had experienced challenges with non-standard implementations. Despite Oracle strongly recommending standard implementation, many customers are tempted to do otherwise. The result is often unforeseen consequences such as reliability or scalability that could not have been anticipated by an in-house development team. Whilst SCB's implementation of CRMOD was an early adoption of SaaS, their experience convinced them of the long-term architectural viability of more extensive SaaS models.

Challenge 3: How to Respond to Regulatory Requirements?

In practice, in a highly regulated environment like banking, regulatory requirements need to drive SaaS strategy. Over 40% of SCB's technology spend is attributable to regulatory compliance. This is accentuated by serving such a diverse geographical region. Each jurisdiction changes requirements regularly. Often these requirements are negotiable, but in general, most jurisdictions would prefer all banking systems to be resident within their borders. Regulators are concerned about the impact on their economies should there be a reduction in banking services. They are also concerned about data security. Most regulators demand that customer data remain within their jurisdictional boundaries. It is then up to SCB and their service providers to convince the jurisdiction that sufficient precautions are in place for that not to be necessary. According to the Head of Technology:

The major risk for CRMOD has been around data confidentiality. We had to get our central compliance teams involved to ensure that the solution we implemented will meet the regulator's requirements across the markets. That drove the decision to have the service installed on Standard Chartered premises. Even access to the environment by Oracle support people was done through a controlled and audited access method. This allowed Standard Chartered to have control of Oracle's access to the private Standard Chartered cloud.

Regulators continue to revise their requirements. An ideal solution for SCB would be a localized SaaS operating in each of the major markets. The challenge is managing that level of localization and running the system in multiple countries cost-effectively:

In any service offering whether cloud computing or a managed service from an external vendor that is the biggest thing that we always look at—security and data confidentiality. They are the key drivers for adoption of any service offering—more so than the commercials. Most cloud computing seems to be a good commercial proposition, however the issue for Standard Chartered is how much higher is the operational risk.—Head of Technology.

Challenge 4: How to Sort out Contractual Governance for Cloud CRM?

SCB's solution here enabled the commercial outcome to reflect the value delivered. Contract pricing was per user. SCB was responsible for hardware investment and data centre costs. Compared with implementing a traditional CRM system, the level of investment was much lower. Especially in comparison with SCB's previous expenditure implementing CRM in Singapore and Hong Kong, SaaS was significantly more cost-effective.

The Service Level Agreement (SLA) comprised standard Oracle terms and conditions. There were penalties for poor performance which have been imposed. *We had some issues with service availability where the penalties have been exercised. (Head of Technology).*

Many of the SCB requirements created challenges with meeting SLA stipulations. For example, the preferred SaaS deployment model was for it to be hosted in an Oracle approved data centre. SCB hosted theirs in Hong Kong for regulatory and cost reasons. Likewise, to gain regulatory approval, access to the systems by support technicians was limited to an ineffective and cumbersome terminal access system that made support and maintenance difficult. According to the Oracle director of SaaS Operations:

It is very complex to manage [SaaS] in an @customer model and considering the limitations imposed by Standard Chartered with the implementation of Terminal Server for monitoring, automation, performance qualification, log retrieval, etc... it was quite a challenge.

Contractual governance was managed by SCB legal, Oracle legal, and IT resourcing departments. This was the first such contract for SCB in terms of scale and coverage. The SCB legal team was very heavily involved. Even in 2016, legal was very much involved in monitoring and renewals:

They are very well aware of the terms and conditions. They know the Oracle legal folks! Both legal departments have developed close working relationships. Standard Chartered has now developed a good understanding of SaaS legal requirements.—Head of Technology.

Despite a number of significant challenges over the years, contractual governance was considered to have been successful. SCB has achieved its business goals at a reasonable cost. Evidence of the success was increased volume purchased as well as increased commitment. The CO of Consumer Banking commented:

The commercial side of it has been an output not an input. Not the other way around. We have increased each year the commitment to Oracle. There is a lot more revenue being booked against the system now than could have been anticipated at the outset. It is also a lesson in letting the commercial outcome be a benefit of what is actually valued, rather than selling a lot of stuff that even if you are not using it is just your problem.

The contract was renewed in 2014. SCB subsequently conducted a strategic review of their CRM needs and considered how best to satisfy them. Options included: continuing with the existing SaaS service unchanged, a more integrated solution (where Oracle also takes responsibility for hardware, data centre, and managed services), migrate to the new Oracle sales cloud service, migrate to an alternative SaaS, or build a customized solution.

Challenge 5: What Management Skills and Capabilities are Needed for SaaS?

At the time of the commencement of the contract, neither the bank nor the service provider had significant experience managing long-term SaaS. From the bank's perspective, SCB had a strong internal IT build capability located in India that was most familiar with building customized systems. They were used to purchasing 'software' which they then modified and implemented. They were not accustomed to purchasing a 'service' which was very difficult to modify either functionally, technically, operationally, or contractually. CRMOD is a SaaS. From the service provider's perspective, although Oracle had been delivering SaaS services for many years, the CRMOD offering was relatively new and SCB was one of the first large customers. Compared with many other customers,

large banks have very complex and specific needs. There are multiple internal banking systems that the SaaS must interoperate with. Depending on how this was done would impose additional requirements on either the SaaS or the bank's internal systems.

SaaS offerings have been developed by software companies. Software development is a very different culture and capability to managed services. SaaS is sold by software sales people but run by service people. The challenge for a software company offering SaaS is to seamlessly transition back and forwards between sales and service. This needs to be done in phase with the client who will also transition from buying to consuming the service. According to the CIO of Consumer Banking:

alignment between the two organizations is very important. Putting the customer as the centre of your focus of what we do is very important. Typically you might have an organization that is service orientated just like us. But you might have a partner that is not strong in service. They might be strong in software development but have limited experience in service. That can be reflected in terms of responsiveness, and approaches towards dealing with the problem. It can become quite a challenging process because you have that disparity in terms of service focus. Like any other service that you subscribe to, you grow with that service.

SCB developed capabilities to manage cloud service. The key SaaS capability that SCB developed was 'making technology work' (Willcocks and Feeny 2003). Why was this? The Head of Technology explained:

what I realised was that the bank itself needs to understand how this model needs to work successfully by understanding the constraints and limitations that the vendor has too. Not everything that you require can be delivered by the vendor always. Within the operating model, Standard Chartered did not have the flexibility to deploy internal resources onto fixing an urgent issue as it could only be done by Oracle in a SaaS model. One of the challenges was working out how the support model works. When are people available? When we were having issues, no one from Oracle was available immediately as the US resources are only available in US time zones. Trying to understand how the system works and technical limitations became crucial.

Development of both the bank's and the service providers operational capabilities are best summarized by the SCB executive sponsor:

I do think at one stage, nobody moved here until Oracle had demonstrated that it wasn't their problem. Oracle, on the other hand, was not prepared to move unless it was demonstrated that it was their problem. Now if there is a production issue, everyone is mobilised and everyone is working on a resolution—most of the time, any time of the day.—CIO Consumer Banking.

Success has been enhanced by driving a strong 'business thinking systems' capability whilst enhancing 'architecture', 'contract monitoring', and 'vendor development'. Specific cloud capabilities such as 'rapid elasticity' and 'ubiquitous access' proved of less relevance in SCB's case compared with the findings of research into more generic infrastructure cloud services (Iyer and Henderson 2010).

Challenge 6: How Do We Cope with Dynamic Business and Technical Environments?

In response to highly dynamic business and technical contexts, scope, technical, non-technical, and operational aspects evolved over time. The scope of service got modified. Initially, there were considerable demands placed on the service, but as volumes increased, scalability and reliability issues arose:

When we first started, we were trying to work towards CRMOD being the portal for customer and client experience. However, that has been amended along the journey as we have better understood our requirements and the capabilities of the service. It became quite clear that CRMOD could be more like a module than the portal.—Head of Technology.

The initial objective of SCB was to rapidly deploy basic CRM capability to support the business strategy. As the initiative gathered pace and SCB made more progress towards their 'SCB Way' strategy, the expectations of the total CEMS system outgrew the stripped down functionality of the SaaS. Likewise, the SaaS became a critical system that impacted

on bank operations if it was unavailable. According to the Head of Technology:

This was due to various limitations of the CRMOD such as volume, scalability, and reliability. It became apparent that CRMOD was becoming a single point of failure for an increasingly critical system. The increasing requirement for CEMS resulted in the initial risk rating of the system increasing from medium to high. As the system rolled out to more geographies and to more parts of the bank such as call-centers, the system became more critical for our day to day business and it became apparent that CRMOD service could not support that higher level of criticality.

CRMOD out of the box could not support those heightened requirements. That was the key turning point and why the SCB CRM strategy changed. The bank and the service provider investigated what was causing reliability issues. One aspect was the way some high-volume processes were being routed through the SaaS:

We looked at the processes and tried to tighten some of the processes involved. We externalised some services so that they would not conflict with critical operations. We externalised the whole reporting capability because the demands could not be supported.—Head of Technology.

Extensive reporting capability came standard, as part of the SaaS functionality. As the bank made the reporting functionality available to the wider community, users were ordering reports during peak periods, thereby impacting on response times for critical activities and eventually impacting on the resilience of the system. Whilst the level of data and process integration was appropriate when the bank was building a CRM capability, as that capability grew, demands increased. When CRMOD started, there was no CRM practice within WB. As the client engagement improved, the demand for more integration provided out of the box by the service increased. For example, requirements for private and public deals have different needs. SCB wanted to increase collaboration between the RMs and the credit teams and other support functions, like

compliance. By 2013, CMROD could not support that level of process integration. In response, the technical problems had to be worked through to achieve the requisite level.

Challenge 7: How Do We Evolve the Client-Supplier Relationship?

The client-supplier relationship had to evolve from service provider to strategic partner. According to the Head of Technology:

The relationship has changed as we moved from the initial phase of developing a CRM practice. In the second phase of the relationship, there has been recognition from both Standard Chartered and Oracle that the standard model does not work and that we need a more strategic partnership. Where Oracle has been working closely with us and recognised how they need to change their support model and often for us from the initial model. For example, we have a demand to do two disaster recovery drills per year to meet the regulatory requirements. That is not supported in the standard model. Nor is 24/7 support. Continuous releases being made into production is also a challenge. The ability to access the data from different systems outside of the standard channels is also a requirement. For example sometimes it is necessary to extract high volumes of data out of the system for specific purposes. This requirement has to be satisfied by a different technical approach. There have been specific changes in audit requirements that Oracle has taken into the product development cycle based on the feedback that Standard Chartered has provided.

Moreover, relational governance evolved as the service became more business critical. Initially, the relationship was based on a very rudimentary SaaS model that would have been appropriate for a low value service to a small uncomplicated client. As the system became larger and more critical, it was necessary for the relationship governance to become more sophisticated. By 2015, there was a complex matrix of regular working meetings and executive sponsorship that had evolved over time. A key issue when the system was suffering reliability issues was finding an appropriate sponsor in the service provider:

Standard Chartered has developed relationships with more relevant Oracle executives that had responsibility and authority for the systems rather than just executive status. We have executive sponsorship from both organizations today.—Head of Technology.

To support day-to-day problem resolution, additional staff have been provided by both the bank and the service provider to be available 24x7 as required to solve operational issues:

This is working a lot better now. Initially there was resistance from Oracle to offer anything more than the standard service. Eventually with increased executive relationship management Oracle understood the real issues that Standard Chartered was trying to address when an Oracle executive organised the first customer visit (CVC) in San Francisco.—CIO Consumer Banking.

Ownership by senior executives from both the bank and the service provider was necessary to better align expectations:

We started to encounter some problems very early on in regards to stability of the platform. ... We decided it would be a much smarter idea if we could collectively solve the issues.—CIO Consumer Banking.

When problems arose, it was not entirely clear what the most appropriate course of action was. One challenge was to find people in both the bank and the service provider who had the time and technical capability to identify the root cause of the issue. The next challenge was finding executive sponsors at both the bank and the service provider who had the authority and resources to ensure that the issue was resolved. The bank had to deploy two of its most capable technical executives whilst the service provider had to engage product development and technical architecture engineering staff that would not normally be distracted by operational issues. Despite the perception of SaaS being a utility, there was still a need for significant internal-retained IT capabilities such as ‘making technology work’ and ‘leadership’.

This case study supports other cloud sourcing research which found that a *key antecedent to cloud-driven innovation is a very strong correlation between the levels of collaboration and resulting innovation within and across organizations* (Lacity and Willcocks 2013).

Challenge 8: Can Symbiotic Innovation Be Achieved?

In practice, SCB and the service provider achieved differing yet parallel innovation Table 8.3 compares the lessons learnt from the differing perspectives of SCB and the service provider. This analysis reveals symbiotic innovation. From the perspective of SCB, customer experience capabilities continued to

Table 8.3 Symbiotic innovations Standard Chartered and Oracle

	Standard Chartered Bank	Oracle
Innovation	Enabled business transformation in a low-risk, inexpensive, incremental approach.	Early to market SaaS product that revealed both challenges and opportunities. Enabled design of next generation cloud offering.
Functional	Get the exact functionality that the SaaS specifies. No surprises but limited influence on development roadmap.	There is a need to enable configuration, extensions, modifications, localizations, and enhancements in a way that does not complicate the core code.
Non-functional	SCB had to accept responsibility for decisions that they had made that influenced reliability.	Scalability and reliability can be negatively impacted by how the client uses the system.
Enterprise architecture	Architecture planning enables greater use of modular cloud services. Cloud brokerage and security are critical.	Many organizations lack the robust enterprise architecture required to take advantage of SaaS.
Integration	SaaS expects the client organization to integrate with legacy system and continue to manage those integrations.	SaaS should ideally present multiple integration options but also needs to prevent unauthorized integrations.

(continued)

Table 8.3 (continued)

	Standard Chartered Bank	Oracle
Operating model	SaaS operating model unlikely to be equivalent to internal operating model and service levels.	Identified need to offer differing levels of operating model depending on criticality of service.
Capabilities	Requirement for internal capabilities does not go away. Some new capabilities required.	Some new capabilities required by service provider. Challenge in upgrading the customer’s understanding of SaaS.
Regulatory	Was and remains a key limitation for a financial services organization. Complicated by international operations.	Reduced remote access created maintenance and support challenges. Significant workload to negotiate with regulators.
Governance	More governance and leadership was required than anticipated due to inter-organizational complications.	Requirement for tiered level of governance that reflects client criticality.
Business value	Significant business value achieved by SaaS. Succeeded where other traditional systems integration projects had failed. Changed the culture of SCB.	Product was very successful for Oracle and spawned a seven-year project to build next-generation SaaS cloud offerings.

innovate within their business. From the perspective of Oracle, the CRMOD experience enabled innovation of the next generation of cloud services.

Lessons for Deploying Cloud SaaS

A fundamental lesson SCB and Oracle learnt was that deploying Cloud Services was quite different from systems integration and more traditional outsourcing approaches to developing and leveraging information and communications technologies corporately. At SCB, these differences emerged over time, as did the different implications the three approaches would seem to have for business and performance. In Table 8.4, we demonstrate the differences as they emerged and got acted upon in the case.

Table 8.4 Comparing systems integration outsourcing and cloud services

	Systems integration	Outsourcing	Cloud	Implication to business
Scope of service	Business likely to have specified functionally rich solution similar to what they were familiar with.	Same scope as systems integration but financially engineered. Managed by a third party with corresponding complexities.	Generic best practice. Limited ability to modify. Need to develop workarounds for 'must-have' functionality.	Business forced to accept SaaS scope of services. Less time spent on arguing functionality. More time spent on implementing.
Innovation	Business is likely to have moved on by the time it was implemented.	Good innovation on inception but likely to hinder innovation moving forward due to complexity of outsourcing relationship.	Change focus of innovation from the technical solution to the business. How can we use what we have got?	Enabled rapid adoption of basic innovation but limitations as organizational capabilities outgrew.
Business case	Unviable from cost, risk, change management, and urgency perspectives.	Unlikely to find a vendor prepared to undertake. Lengthy negotiations to manage uncertain risks.	Granularity enables business to drive rather than large IT project.	Costs and benefits are more clearly identified and quickly realized.

Within the frame of this fundamental lesson, in our analysis, the SCB case reveals 11 other learnings. We summarize these as:

1. *Innovation*. Cloud computing can be an agile, low-risk, inexpensive, iterative mechanism to enable a complex change programme. In the case of SCB, a relatively simple, cheap, and quick implementation achieved an organizational transformation that had previously been unimaginable.

2. *Functional Requirements.* There is a strong need to understand business requirements and the trade-offs between a custom solution versus SaaS. There is limited flexibility to add or enhance functionality. Understand the service being offered and how it will work for you. It is difficult for the service provider to balance individual client requirements with the larger pool of users. Think very carefully before trying to make the service do something that it was not designed for.
3. *Non-Functional Requirements.* Scalability, reliability, and availability can become issues as usage grows or the system becomes more mission critical. There may be limited flexibility to enhance due to the way that the SaaS has been engineered.
4. *Enterprise Architecture.* Integration with legacy systems can be technically and commercially complex. Ensure that there is full understanding of the intricacies of how systems will be integrated, change managed, problem resolved, and maintained. Ideally, the enterprise's architecture should enable a clean interface between the service and internal systems. This could include cloud brokerage and security management.
5. *Integration—Making technology Work.* SaaS forces integration responsibility onto extant internal client systems. This can be technically challenging and may require considerable internal flexible, adaptive advanced skills to make the technologies work together.
6. *Operating Model.* The client and provider need to understand each other's operating model and expectations of service levels and demands. The concept of cloud servicing is not equivalent to turning on a power switch 'for the services'.
7. *Capabilities.* Just as outsourcing demands enhancement of traditional core IT capabilities, cloud services demand enhancement of capabilities including 'business systems thinking', 'architecture planning', and 'making technology work'.
8. *Change Management.* It is significantly easier to implement organizational change management if the system can be implemented incrementally as user demand grows. System demonstrations and training must be available from day one.

9. *Regulatory*. There is a need to understand the regulatory, security, and data privacy implications. A model that works well in the USA might be inappropriate elsewhere in the world. Likewise, a model appropriate for one industry might be inappropriate for one that requires greater security and privacy such as financial services.
10. *Governance*. Relationship management with a SaaS provider is complicated by the restrictions inherent in the service model. There may be limited flexibility due to the 'take it or leave it' nature of SaaS. Both SCB and Oracle were committed to the long-term success of CRMOD. This commitment was reflected in extensive inter-organizational collaboration as well as significant executive sponsorship within each organization.
11. *Business Value*. Within the context of an organizational transformation programme there is potentially significant business value. But at the application level of cloud services, as SCB discovered, significant business change is likely to be necessary to capture potential value.

Conclusion

SCB began implementing CRM as a private cloud software as a service (SaaS) in 2008. Roll out was rapid and adoption impressive. Most banks in Asian markets have struggled to implement CRM systems much less get employees to use them. Reach of the system continued to expand country by country. By 2013, SCB had established a sound international CRM capability on which to build additional functionality and to improve efficiency. By 2015, it was being used in over 60 countries by 24,000 front-line staff. Previously the bank had expended considerable resources to implement CRM via traditional on-premise implementations, but had achieved limited success. Implementing a SaaS CRM solution became a significant achievement, but there were major challenges.

SaaS was, and is, a significant enabler of that success. This case study reveals both the advantages and disadvantages of SaaS. Both the bank and the service provider continued to learn and innovate the service

over the years. The relationship went through difficult times as the two organizations struggled with how best to operate. Both have significantly enhanced their SaaS capabilities. The service provider has spent the last nine years developing an entirely new SaaS cloud architecture that overcomes many of the earlier challenges. When the extended SaaS contract expired in 2016, both organizations found themselves at an important stage of the relationship working out how best to build on the capability.

Appendix: Research Methodology

The complexity of the research question lent itself to a research methodology based on ‘Grounded Theory’ (Glaser and Strauss 1967) supported by ‘Intention Analysis’ (Sanders 1982) within ‘Case Studies’ (Galliers 1992; Platt 1988; Yin 1984). Interviews were structured to identify correlated change ‘in which change in the antecedent co-occurs with the change in the outcome’ (Kuhn 1991). There were elements of action research with one of the authors an active participant in events as well as carrying our research in the organizations.

All interviewees had considerable experience as IT professionals. The sample of interviewees reflected a cross section from both SCB and Oracle spanning management to operations in both organizations. Likewise the sample spanned business to technology. Most were interviewed multiple times. Initial interviews followed a formal interview protocol. Subsequent interviews drilled down on specific issues. Interviews were conducted during the period 2012–2014. Where possible, interviews were recorded, transcribed and returned to the interviewee for confirmation. Interviews were triangulated with public documents (Ralph and Murray 2003), internal client and supplier documents, and observation. Methodological rigour was supported by good access and triangulation (Dubé and Paré 2003)

Drafts of the case study were reviewed by key stakeholders to ensure accuracy. A smaller subset of key bank and Oracle stakeholders kindly reviewed research findings to verify practical relevance.

Table 8.5 Appendix: Interviewees

Standard Chartered Bank	Oracle
CIO Consumer Banking (CB)	Key account director for SCB
Head of Technology Solution Delivery	Oracle Global Client Advisor
CIO Customer Experience, CB	Senior Principal Technical Account Manager
Customer Experience Business Manager, CB	Director, Software as a Service Hosting Operations
Customer Experience Technology Manager, CB	Senior Vice President Product Development
CEMS Technology Manager	Senior Vice President Oracle CRM On Demand (CRMOD) Operations

Interviewees: Detailed Roles and Responsibilities

- *Standard Chartered Bank*

CIO Consumer bank. Executive sponsor for CRMOD.

Head of Technology Solution Delivery. Senior technology manager responsible for SLA of CRMOD and especially focused on reliability as opposed to functionality.

CIO Customer Experience, Consumer Banking. Responsible for CEMS design, implementation and operation.

Customer Experience Technology Manager, Consumer Banking. Responsible for technical integration and operations of CEMS.

Customer Experience Business Manager, Consumer Banking. Responsible for business case and value realization of initial selection and implementation.

CEMS Technology Manager. Responsible for technical integration and enterprise architecture of all CRM related technology. Led team of technical problem solvers.

- *Oracle*

Key account director for SCB. Responsible for overall relationship with SCB as well as new sales. Measured on meeting sales and customer satisfaction metrics.

Oracle Global Client Advisor, Co-lead of the SCB account. Focused on driving large scale transformation programmes in the client.

Senior Principal Technical Account Manager, Jointly funded by Oracle and SCB to assist with service requests and to support trouble resolution. Manages operational issue resolution between the SCB operational team and the Oracle operational and development team.

Director, Software as a Service Hosting Operations. Responsible for architecting software solution and technical platform. Engineering role in resolution of functional and operational matters.

Senior Vice President CRMOD Operations. Responsible for delivery of SaaS operations.

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9

Innovating in Service: The Role and Management of Automation

Mary Lacity and Leslie P. Willcocks

Introduction

Using software to automate tasks is not a new idea, but interest in service automation has certainly escalated in recent years. The popular press is filled with provocative titles like “Rise of the Robots: Technology and the Threat of a Jobless Future” (Ford 2015), “A World without Work (Thompson 2015),” and “I Am Robot: Will Robotic Process Automation Revolutionize the BPO Industry?”¹ Although the term “robot” connotes visions of physical robots wandering around offices performing human tasks, the term as it relates to service automation really means the delivery by software of service tasks previously performed by humans. Service automation comprises a continuum of tools, each designed to automate a different type of task.

M. Lacity (✉)

University of Missouri, St. Louis, MO, USA

e-mail: Mary.Lacity@umsl.edu

L. P. Willcocks

London School of Economics and Political Science, London, UK

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One broad class of tools designed to automate structured processes is commonly called Robotic Process Automation (RPA). In RPA parlance, a “robot” is equivalent to one software license. For business processes, the term RPA most commonly refers to configuring the software to do the work previously done by people the way people did the work, by logging on and off systems. RPA software providers include Automation Anywhere, Blue Prism, and UiPath.

RPA has two distinctive features compared to other automation tools like Business Process Management (BPM) tools. *First, RPA is easy to configure, so developers don't need programming skills.* RPA interfaces work a lot like Visio, by using icons to represent steps in a process. As users drag, drop, and link icons to automate a process, code is generated automatically. The ease of use means that automation projects can be deployed by business operations staff and do not require expensive IT developers. Business operations people with process and subject matter expertise but with no programming experience can be trained to independently automate processes within a few weeks. The significantly lower IT investment costs now make automating many more business processes financially beneficial.

Second, RPA software is non-invasive. RPA software accesses other computer systems the way a human does—through the user interface (UI) with a log-on ID and password. Thus, RPA software accesses other systems through the presentation layer and no underlying systems are touched. Furthermore, RPA products do not store any data. This distinguishes RPA from BPM solutions because BPM solutions are invasive, create new applications, and access business logic and data access layers in the IT architecture stack (see Fig. 9.1).

Another broad class of tools is called *cognitive automation (CA)* or *cognitive intelligence (CI)*. These tools are designed to automate or augment non-structured tasks. CI “is the ability to plan, reason, and use logical deduction to solve problems.”²² The new set of tools, including IPsoft’s Amelia and IBM’s Watson, use natural language interfaces to read, build patterns and relationships among data, and apply knowledge to solve problems, or to pose additional pertinent questions. Some of these tools also claim *emotional intelligence*, the ability to assess another human being’s sentiment or state of arousal.

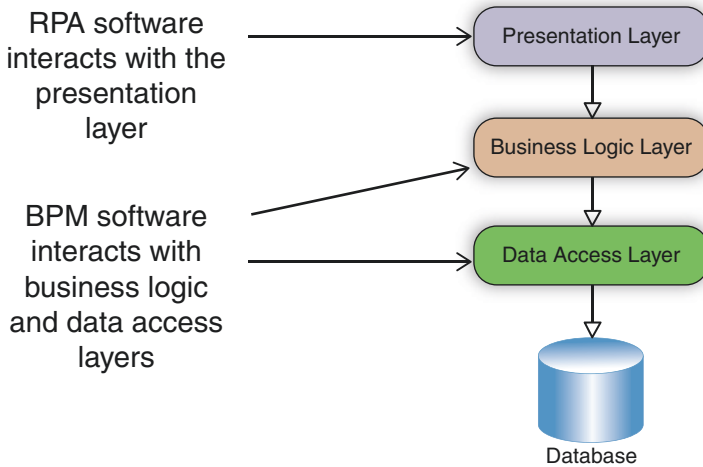


Fig. 9.1 RPA software as “non-invasive”

Given the newness of these service automation technologies, there are many unanswered questions. In this chapter, we report on empirical research answering three questions:

1. Why are clients adopting service automation and what outcomes are they achieving?
2. What practices distinguish service automation outcomes?
3. How does service automation affect outsourcing?

Using an inductive research process, we collected data from a survey and interviews with service automation adopters, providers, and advisors. The 17 client adoption cases gathered to answer question 1 show business results that included not only full-time equivalent (FTE) savings but also improved service quality, faster deployment of services, and surprisingly, increased staff job satisfaction. Employees in our study were more satisfied because their jobs became more focused on higher-level tasks after the software took over dreary, repetitive tasks. The clients in our study did not use automation to lay off any internal employees, which removed the fear that automation can cause among workers. Overall, we found that clients are adopting service automation within business operations groups

to get more work done without adding more people. What practices distinguished service automation outcomes? The research participants identified 20 action principles that helped achieve good outcomes. These action principles address lessons relating to (a) defining a service automation strategy, (b) launching a successful service automation initiative, (c) preparing the organization for the changes service automation induces, and (d) building an enterprise-wide service automation capability. Thus far in our research, service automation has only affected outsourcing relationships in a few of the companies studied. Specifically, two of the 17 client adoptions reduced FTE headcount in an offshore provider relationship. Based on interviews with advisors, the real impact of service automation on outsourcing relationships will be from 2017 onward.

This chapter is organized as follows. First, we describe the research method. Next, we describe six client adoption stories in some detail to provide readers with a deeper contextual understanding of service automation. These stories also illustrate the favorable business outcomes achieved with service automation. Then we present 20 “action principles” based on the survey and interviews to suggest how practitioners have achieved positive outcomes. We also discuss the effects of service automation on outsourcing by relying mainly on the advisor interviews. Finally, we discuss the limitations of the research and offer concluding thoughts.

Research Method

To answer the research questions, we conducted a survey of 143 outsourcing professionals and conducted interviews with 43 people, including service automation adopters, providers, and advisors.

Surveys

We conducted two surveys. We surveyed the attendees of the 2015 and 2016 Outsourcing World Summits (OWSs) during the client-only and provider/advisor-only networking sessions (Lacity et al. 2015). The 2015 sample of 143 completed surveys consisted of 63 clients, 64 providers,

and 16 advisors. The survey assessed the maturity of service automation adoption, the drivers of service automation adoption, the perceived automatability of existing business services, and the preferred sourcing option.

The client respondents were senior leaders in charge of sourcing strategy, governance, procurement, and provider management. They are responsible for IT Infrastructure, software development, financial and accounting, human resource, logistics, call center and/or research and development services, and outsourcing relationships within their organizations. Client respondents represented organizations from a variety of industries including financial services, software, technology, engineering services, manufacturing, aerospace, pharmaceuticals, life sciences, health-care, and other industries. Provider and advisor respondents represented organizations of varying sizes. The majority of provider and advisor firms employed fewer than 10,000 employees.

In February 2016, we repeated the survey at the International Association of Outsourcing Professionals (IAOP) world outsourcing summit, with 64 clients, 39 providers, and 17 advisors answering a survey administered during the client-only and provider/advisor-only networking sessions. Respondents, client industries represented, and size of providers/advisors were not that dissimilar to those in 2015. By this date, 14 percent of client organizations had adopted RPA, with another 44 percent considering RPA. Meanwhile, 13 percent had adopted CI and 33 percent were considering CI adoption. These are quite low figures, though it must be pointed out that, according to commentators like Everest Group and HFS Research and Forrester Research, 2016–2018 subsequently saw a revenue growth rate exceeding 100 percent in the combined RPA/CA markets.

Interviews

We needed key participants at the front lines of service automation adoption to answer the research questions. Key participant interviews were an appropriate method because we sought answers to questions in which the subject matter was sensitive (like any form of automation) and because we were more concerned with the quality, not quantity, of responses.³

During 2015 and 2016, we conducted interviews with 43 people, including 23 people representing 17 client organizations that adopted service automation, 15 people representing 7 providers of service automation tools and services, and 5 advisors with service automation expertise. Interviews occurred in person, over the phone, or over email depending on the availability and preferences of interviewees.

Client Interviews

We posed a number of questions to clients pertaining to their service automation adoption, business value delivered, and lessons learned. The specific questions were:

- *Client adoption:* Briefly describe your service automation adoption story within your organization. Did you do a proof-of-concept, and if so, when and on what process? What was your initial business case? What were the critical success factors?
- *Business value delivered:* How has service automation delivered on the initial business case in terms of financial (i.e., cost savings, return on investment), operational (i.e., improved quality, faster delivery, better compliance), and strategic value (i.e., strategy enablement, access to new customers, better customer retention)?
- *Lessons learned:* What overall lessons did you learn? If you had to do your service automation implementation all over again, what three things would you change? Why?

In total, the client interviewees reported upon 17 service automation adoption stories (see Table 9.1). We have permission to name eight of the client organizations. We assigned pseudonyms to the other client organizations.

Seven of the client organizations are headquartered in the United Kingdom, five are based in the United States, and one client organization is based in each of the following countries: Australia, France, Germany, Netherlands, and Russia. The client organizations represent 14 industries, illustrating that service automation is not restricted to certain industries.

Table 9.1 Client organizations represented

Company name or pseudonym	Industry	Headquarters	Adoption location	Realm	First processes automated
1. Ascension MSC	Healthcare	US	BO	RPA	Employee record updates
2. Associated Press	Media	US	BO	RPA	Corporate earnings reports
3. Blue Cross Blue Shield- North Carolina	Healthcare insurance	US	BO	RPA	Claims processing
4. Biotech	Biotechnology	Netherlands	BO	RPA	Financial close
5. Building Society ^a	Financial services	UK	BO	RPA	Mortgage lending and savings
6. Consulting ^a	Consulting	France	BO	RPA	Still considering pilot options
7. Deakin University	Higher education	Australia	?	CA	Student engagement
8. Energy ^a	Natural gas	Russia	BO	RPA	New customer registration
9. Financial Services ^a	Financial services	UK	BO	RPA	Payroll verification
10. Healthcare ^a	Healthcare	UK	BO	RPA	Patient registration
11. Insurance ^a	Insurance services	UK	IT	RPA	Pension enrollment
12. Professional Services	Professional services	US	R&D	CA	Commercial loan grading; Business development
13. Telefónica O2	Telecommunications	UK	BO	RPA	SIM Swaps; pre-calculated credit
14. Utility ^a	Electric and gas	Germany	BO	RPA	Meter reading feasibility checks
15. VHA	Healthcare	US	IT	RPA	Web crawls for product descriptions
16. Virgin Trains	Transportation	UK	BO	CA	Incoming customer correspondence
17. Xchanging	BPO provider	UK	BO	RPA	Premium advice notices

^a Pseudonym

Legend: BO, business operations; IT, IT department

In our sample, 17 adoptions took place within business operations; only two were led by people from Information Technology (IT) departments. Fourteen clients adopted automation technologies that fall within the realm of RPA, and three fall within the realm of CI. The 17 client organizations adopted service automation tools/platforms from Blue Prism ($n = 10$), IBM ($n = 2$), Automation Anywhere ($n = 1$), Automated Insights ($n = 1$), Celaton ($n = 1$), and Redwood ($n = 1$).

Provider Interviews

We also interviewed 15 provider representatives to discuss their companies' automation capabilities, challenges they help their clients overcome, and the future of service automation. In all, six provider organizations are represented in the study: Automated Insights, Automation Anywhere, Blue Prism, Celaton, Infosys, IPsoft, and Redwood. Their major service automation tools and sample clients are listed in Table 9.2.

Because providers are sensitive about what their products are called, we provide a brief overview of how providers describe their service automation tools. Automated Insights positions itself as *an automated content creator* that accesses big data to automatically write narratives from pre-defined story structures. Its main product is called "Wordsmith." Automation Anywhere positions itself as an *RPA and cognitive technology* provider. As of early 2016, it had three main products: AA Enterprise, AA Small Business, and AA metabots. Blue Prism positions itself as an enterprise *RPA provider*. Blue Prism emphasizes that its product is designed for enterprises and meets strict standards for enterprise security, control, data integrity, change management, scalability, robustness, and scheduling. Celaton positions itself as a *cognitive learning technology provider*. Its main product is inSTREAM. The software reads and interprets unstructured and structured textual data. IPsoft has a number of service automation tools, the most interesting perhaps is "Amelia." Amelia is described as an *artificially intelligent cognitive agent* that understands unstructured texts like manuals, learns from "watching" human agents, and problem-solves within a context of emotional sentiment recognition that assesses degree of dominance, arousal, and pleasure. Infosys, a global leader in consulting,

Table 9.2 Provider organizations represented

Service automation provider	Service automation tool	Service automation tool description	Sample client adopter from our study
1. Automated Insights	Wordsmith	"Generates narratives from structured data and story structures" ^a	The Associated Press
2. Automation Anywhere	AA Enterprise; AA Small Business; AA metabots	"Our software bots run processes and assess information in the way a human would: acting on structured and semi-structured data to automate end-to-end, and gauging sentiment with unique natural language processes." ^b	VHA
3. Blue Prism	Blue Prism	"We provide an enterprise-strength Robotic Process Automation software platform which is robust, highly scalable, powerful and flexible, designed from first principles to provide organisations with a business owned and IT supported Virtual Workforce." ^c	Telefónica O2; Xchanging; Utility
4. Celaton	inSTREAM	"inSTREAM applies artificial intelligence to streamline labour intensive clerical tasks and decision making and transform the way that organisations handle the unstructured content that flows in every day from customers including correspondence, claims and complaints received by email, social media, fax & post." ^d	Virgin Trains
5. IPsoft	Amelia	"Artificially intelligent cognitive agent" ^e Virtual agent that understands, learns, and problem-solves within a context of emotional sentiment recognition. ^f	(Provider interview only)

(continued)

Table 9.2 (continued)

Service automation provider	Service automation tool	Service automation tool description	Sample client adopter from our study
6. Infosys	Infosys Automation Platform (IAP); Panaya	“We are leveraging AI and knowledge-based techniques to solve ticketing problems with Infosys Automation Platform (IAP)*, automating not merely the business processes but also the experience in BPO, through Panaya* automating application maintenance and application testing.” ⁹	(Provider interview only)
7. Redwood	RoboClose	“Redwood looks for comprehensive robotization of entire processes, e.g., Record to Report, Procure to Pay and Order to Cash and goes across processes to add value. Rather than communicate with applications at the user interface level (UI) and mimicking user interactions, Redwood robots communicate directly with core ERP and other business systems at the server level (API).” (Lacity et al. 2016)	Royal DSM

^a<https://automatedinsights.com/blog/introducing-wordsmith-using-data-to-reinvent-how-we-write/>

^b<https://www.automationanywhere.com/technology>

^c<http://www.blueprism.com/our-products>

^d<http://www.celaton.com/>

^e<http://www.ipsoft.com/ipsoft-humanizes-artificial-intelligence-with-the-next-generation-of-its-cognitive-agent-amelia/>

^f<http://gartner.mediasite.com/Mediasite/Play/97592783dab746279f65898c313046c51d>

⁹Email interview with Pravin Rao, COO and Member of the Board, Infosys

technology, and outsourcing services, has a number of service automation platforms and tools, including Infosys Automation Platform (IAP) and Panaya. Pravin Rao, COO, described these tools to us as follows: “We are leveraging AI and knowledge-based techniques to solve ticketing problems with Infosys Automation Platform (IAP), automating not merely the business processes but also the experience in BPO, through Panaya automating application maintenance and application testing.” Finally, Redwood looks for comprehensive robotization of entire processes, for example, Record to Report, Procure to Pay, and Order to Cash, and goes across processes to add value. Rather than communicate with applications at the UI level and mimicking user interactions, Redwood robots communicate directly with core Enterprise Resource Planning (ERP) and other business systems at the server level (API), allowing greater process standardization, compliance, control, and audit trail.

Advisor Interviews

We asked five advisors questions pertaining to client service automation adoption, effects on outsourcing, automation tool capabilities, and the future of work as a consequence of automation. Five advisor organizations are represented in the study: The Everest Group, KPMG, Horses for Sources (HfS), Alsbridge, and Information Services Group (ISG) (see Table 9.3).

Table 9.3 Advisor organizations represented

Name	Title	Company
1. Sarah Burnett	Research Vice President	Everest Group
2. Cliff Justice	Leader of US Shared Services and Outsourcing Advisory	KPMG
3. Charles Sutherland	Chief Research Officer	HfS Research
4. Derek Toone	Managing Director, Robotic Process Automation	Alsbridge
5. Rob Brindley	Director, Robotic Process Automation and Media Industry	ISG

In addition to these empirical methods, several providers gave product demonstrations and the lead author completed an RPA foundations course to assess the claims about ease of use.

Sample Client Adoption Stories

This section describes 6 of the 17 client adoption stories in some detail to provide readers with a deeper contextual understanding of service automation. These six examples are used in later sections to illustrate the action principles. In selecting the six cases, we aimed for a broad representation of client contexts. We present the case studies of the Associated Press (AP), Telefónica O2, UTILITY (a pseudonym), the VHA, Virgin Trains, and Xchanging. Together, they represent a variety of industries (media, telecommunications, electric and gas utility, healthcare, transportation, and business process outsourcing). Three of the clients are based in the United Kingdom, two in the United States, and one in Germany. The client cases represent a variety of service automation tool adoptions. Three of these companies adopted Blue Prism software: Telefónica O2, UTILITY, and Xchanging. The AP adopted Automated Insights, the VHA adopted Automation Anywhere, and Virgin Trains adopted Celaton. We included some of the earliest adopters of service automation back in 2008 and 2010 to some of the more recent adopters. The client adoption cases are presented in alphabetical order by client name in the next section.

The Associated Press Adopted Automated Insights

In 2014, The AP, a US-based, multinational, not-for-profit news agency, automated corporate earnings reports using software from Automated Insights and structured data from Zach's Investment Research. Lou Ferrara, Vice President of AP, led the service automation initiative. He explained that corporate earnings reports are a major service, and AP's clients relied on the 300 reports generated each quarter and, indeed, clients were asking for more companies' earnings to be reported. The task,

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 201409 0.860 8 0.010 0.900 4.651 201409 0.855 8 0.009 0.900 5.263

Fig. 9.2 Structured data on corporate earnings from Zach Investment

Slug: BC-US--Earns-AutoNation
 Headline: AutoNation beats Street 3Q forecasts
 Extended Headline: AutoNation posts 3Q profit, results top Wall Street forecasts
 Urgency: Non Urgent
 Dateline: FORT LAUDERDALE, Fla.

FORT LAUDERDALE, Fla. (AP) _ AutoNation Inc. (AN) on Tuesday reported net income of \$106.5 million in its third quarter.

On a per-share basis, the Fort Lauderdale, Florida-based company said it had net income of 90 cents.

The results beat Wall Street expectations. The average estimate of analysts surveyed by Zacks Investment Research was for earnings of 86 cents per share.

The auto retailer posted revenue of \$4.91 billion in the period, also surpassing Street forecasts. Analysts expected \$4.8 billion, according to Zacks.

AutoNation shares have climbed roughly 5 percent since the beginning of the year, while the Standard & Poor's 500 index has climbed 6 percent. The stock has climbed almost 6 percent in the last 12 months.

This story was generated by [Automated Insights](#) using data from Zacks Investment Research. [AN stock research report from Zacks.](#)

Fig. 9.3 A sample corporate earnings report. Source: The AP, reproduced with permission

however, was quite boring for journalists because the data come in very structured (see Fig. 9.2) and do not require any creativity to write the release (see Fig. 9.3). Ferrara selected Wordsmith to automate content creation. The software now takes the structured data and converts it into a news article. Automation delivered multiple business benefits: Service automation increased service volumes from 300 corporate earnings reports to 4700 reports each quarter while freeing up three FTEs to work on more interesting news assignments. None of the unionized journalists were laid off as a consequence of automation. For customers, the quality of reports improved as well as the volume of reports. The AP next automated college sports news and sought to build a mature automation capability.

Telefónica O2 Adopted Blue Prism

Telefónica O2, a UK telecommunications company, was the second earliest adopter of service automation in our study. Wayne Butterfield, then Head of Back Office, launched service automation with Blue Prism software in 2010. He began with the automation of two processes: SIM swaps—the process of replacing a customer’s existing SIM with a new SIM but keeping his or her existing number—and the application of a pre-calculated credit to a customer’s account. After these proof-of-concept successes, other processes were automated. As of April 2015, Telefónica O2 had automated nearly 35 percent of its back office services, yielding a three-year return on investment of between 650 and 800 percent. Its service automation capability was quite mature and broad in scope by this time. The software processed between 400,000 and 500,000 transactions each month in 2015, rising to a million transactions by mid-2016. For some customer-facing processes like phone activation and SIM swaps, it reduced the turnaround time from days to just minutes. Subsequently, customer “chase up” calls were reduced by over 80 percent per year because fewer customers needed to inquire about the status of service requests. Scalability was another benefit—its “robotic” workforce could be doubled almost instantly when new products were about to be launched—and then scaled back down after the surge. Telefónica O2

promised their internal employees that automation would not result in layoffs. Instead, workers were redeployed to do more interesting work.

UTILITY Adopted Blue Prism

A major European electricity and gas utility company with the assigned pseudonym UTILITY, was the earliest adopter of service automation in our study. One of its proof-of-concept cases occurred in 2008 when UTILITY used automation to resolve infeasible meter readings for residential customers. Millions of residential customers need to have their meters read four times a year for billing. Back in 2008, the legacy main-frame system electronically applied rules to determine whether a meter reading was feasible or not. There could be many reasons to doubt the meter readings. For example, if this quarter’s meter reading were lower than the previous quarter’s meter reading, it would indicate the infeasible situation that the customer was adding electricity to the grid rather than consuming it. Infeasible meter readings were kicked out of the main-frame legacy system and given to between 25 and 30 people to manually resolve them. Depending on the situation, humans applied rules or judgment to fix errors (see Fig. 9.4). Infeasible meter reading resolutions that were highly rules based were suitable for automation.

After automation, humans continued to process the exceptions that required judgment. Overall, the FTE count was reduced by about 60

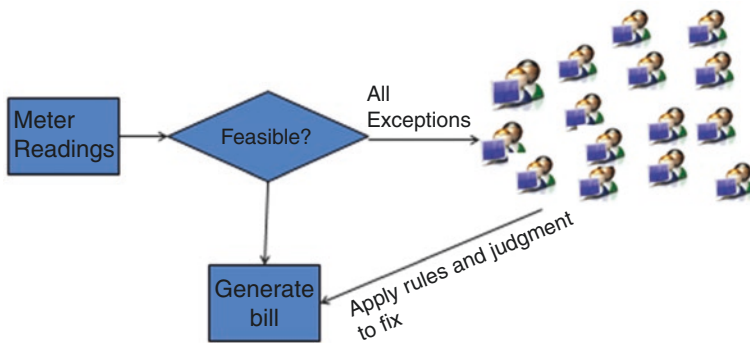


Fig. 9.4 Meter reading process before service automation

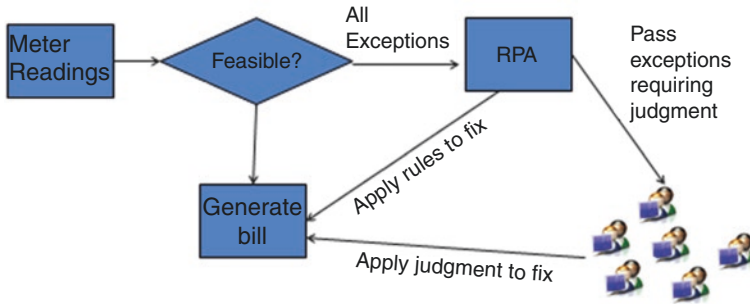


Fig. 9.5 Meter reading process after service automation

percent and quality, consistency, and speed of resolutions increased (see Fig. 9.5). Since that time, UTILITY went on to build a mature robotic process operating model. As of late 2015, UTILITY had deployed over 300 “robots” to automate about 20–25 percent of its back office work associated with meter management, customer billing, account management, consumption management, segmentation, and exception processing. The robots process about 1 million transactions each month yielding an average return on investment of 200 percent within 12 months of automation. A detailed version of this case appears in Willcocks and Lacity (2016).

The VHA Adopted Automation Anywhere

The VHA is a US health care network of not-for-profit hospitals that provides services such as pooling procurement spend to negotiate better deals than any hospital could negotiate on its own. Chet Chambers, Director of Information Technology and Development, saw a real business need to streamline procurement—business operations staff was wasting time searching the Internet for product specification data. This task was dreary and high volume, as the VHA purchases hundreds of thousands of products for its members each year. In 2014, the VHA automated the extraction of detailed product information from the Internet to complete the procurement process using software from Automation Anywhere. Within a few months of operation, over 360,000

product descriptions were automatically pulled from the Internet, freeing business staff from this time-consuming activity so they could focus on selling and revenue generation. The VHA reported a 6 to 1 return on their investment the first year. More automation projects were planned for 2016.

Virgin Trains Adopted Celaton

Virgin Trains is a train operating company based in the United Kingdom. Virgin, the brand founded by entrepreneur Richard Branson, owns 51 percent, and Stagecoach owns 49 percent. Virgin Trains operates long-distance passenger services on the West Coast Main Line between London, West Midlands, North West England, North Wales, and Scotland.⁴ As Virgin Trains grew as a company, a tsunami of additional customer email and social media ensued, stretching the existing staff beyond its limits. The staff was spending too much time filtering incoming correspondence, categorizing it, and then routing it for resolution. Christian Clarke, Head of Customer Relations, saw a real need to focus his staff on engaging with internal and external customers rather than on data entry tasks. He adopted Celaton to filter, organize, and route customer correspondence so staff could focus on engaging customers and improving customer relationships. Using automation, Celaton's inSTREAM receives all the correspondence, filters it, categorizes it to over 470 types, and routes it. The staff now works on more value-added tasks, such as spending more time with customers and with business operations folks working on the frontlines. The daily email processing time was reduced from 32 man-hours per day to 4. Over the course of a week, by our estimate, that amounts to freeing up nearly six FTEs for more value-added work.⁵

Xchanging Adopted Blue Prism

Xchanging is a provider of technology-enabled business processing, technology and procurement services internationally to customers across many industry sectors. Xchanging was the only traditional Business

Process Outsourcing (BPO) provider among our 17 client adoption stories. Listed on the London Stock Exchange, it had over 7400 employees as of 2014. One of its major services is managing The London Market’s centralized Insurers’ Market Repository that contains the market’s claims, premiums, policies, and related documents. In early 2014, Paul Donaldson, Head of Process at the time, was charged with identifying and automating ten processes in the insurance business while establishing a long-term governance and support competency. Xchanging adopted Blue Prism software. One of their proof-of-concept cases was the automation of the validation and creation of London Premium Advice Notes (LPANs). Figure 9.6 depicts the process before and after automation. Insurance brokers submit LPANs to Xchanging for processing using a variety of inputs (spreadsheets, emails, etc.). The operators at Xchanging first structured the data, checked for completeness and accuracy, processed any errors, extracted additional needed data from other online systems of

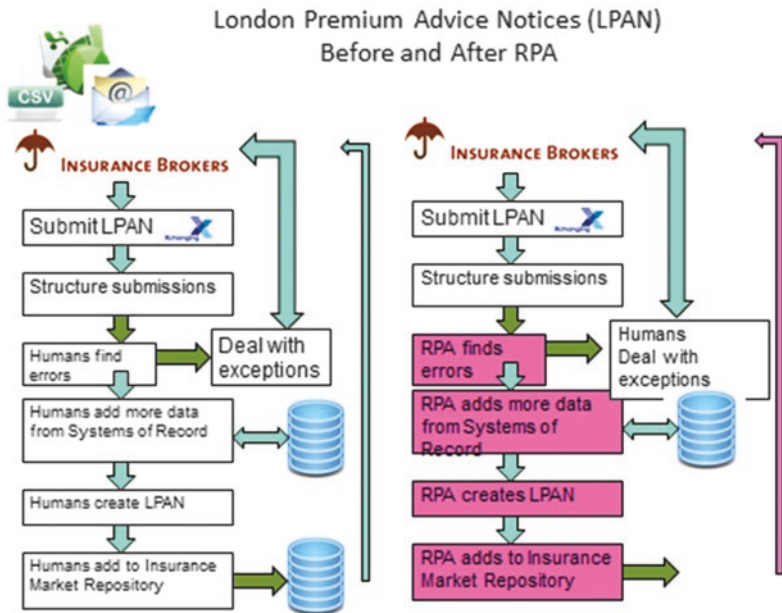


Fig. 9.6 London premium advice notices (LPAN): before RPA (left) and after RPA (right)

record, and then created and posted the official London premium advice notices (LPAN) to the Insurance Market Repository so brokers could be paid. After adopting Blue Prism, the software took over the structured parts of the process (indicated by darker boxes in Fig. 9.6), including finding errors, retrieving data from systems of record, creating the LPAN, posting the LPAN, and notifying brokers that the process was complete. Where a 500 LPAN process previously took days, a properly trained robot can now do this in around 30 minutes, without error.⁶ The software can easily scale up and down to meet changing human workloads. As of May 2015, Xchanging had automated 14 core processes, deployed 27 robots that processed 120,000 transactions per month, for an average total cost savings of 30 percent. Besides cost savings, Xchanging reported many other business benefits including improved service quality, faster service delivery, and scalability. A major theme from the case is that the operations teams embraced RPA because it released them from dreary work.

Besides these business benefits, a fascinating finding from this study was that the operators embraced automation and even anthropomorphized the software robots. The first Blue Prism software robot was named “Poppy” after Remembrance Day 2014—the day the RPA process went live.⁷ Figure 9.7 is a depiction of Poppy created by a team member. As Xchanging automated more processes, operations team members continued to embrace and name their software robots Henry, Sunny,

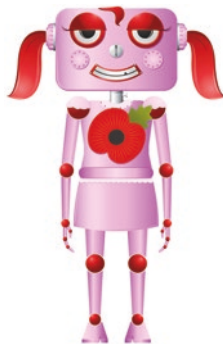


Fig. 9.7 “Poppy” (reproduced with permission, Xchanging)

Timmy, Tommy, Feebz, Deppo, Jaddu, and Arthur. A detailed version of this case appears in Willcocks and Lacity (2016).

The mini case histories of the AP, Telefónica O2, UTILITY, VHA, Virgin Trains, and Xchanging are typical cases among the 17 client adoption stories, in that the business outcomes were favorable in all 17 cases. Interviewees shared their perceptions as to the practices that led to these favorable outcomes, allowing us to answer the research question:

What Practices Distinguish Service Automation Outcomes?

The interviewees reported considerable business value delivered through RPA adoption. Based on the survey and interviews, we extracted 20 action principles that practitioners variously applied in order to achieve positive outcomes. Action principles are grounded in data and offer insights to thoughtful agents who can consider the principles to navigate their own RPA journeys (Susman and Evered 1978). The 20 action principles address defining a service automation strategy, launching a successful service automation initiative, preparing the organization for the changes service automation induces, and building an enterprise-wide service automation capability. Table 9.4 lists the action principles and the sources of those principles.

Action Principles for Service Automation Strategy

Clients that achieved the best outcomes from service automation had an enterprise-wide service automation strategy. An automation strategy defines the enterprise's long-term goals and how service automation fits into a larger picture of business transformation. Across the survey and interviews, five action principles pertaining to an effective service automation strategy emerged.

Table 9.4 Action principles

		Interviews			
		Surveys	Clients	Providers	Advisors
Strategy	1. Strategic service automation requires cultural adoption by the C-suite		✓	✓	
	2. Include multiple expected benefits in business cases for service automation	✓	✓	✓	
	3. Beware of hype			✓	✓
	4. Understand that service automation is a continuum of many tools and platforms suited for different types of work		✓	✓	✓
	5. Consider carefully the best sourcing option	✓	✓		✓
Launch	6. Take some risks		✓		
	7. Select exciting proof-of-concepts that remove pain points and will get noticed		✓		
	8. Develop criteria for the “automatability” of processes		✓		✓
	9. Make gains from automating sub-processes		✓	✓	✓
	10. Test service automation capabilities with a controlled experiment		✓		✓
	11. Lean on service automation providers for training and knowledge transfer		✓		

(continued)

Table 9.4 (continued)

			Interviews			
			Surveys	Clients	Providers	Advisors
Change management	12.	Service automation needs a sponsor, project champion, and project manager	✓			
	13.	Let business operations lead (so far)	✓	✓		✓
	14.	Bring IT onboard early	✓	✓		✓
	15.	Pay careful attention to internal communications—send the right message to staff	✓			✓
Build an enterprise-wide capability	16.	Establish a Center of Excellence	✓	✓		
	17.	Rethink talent development for skills needed for an enterprise automation capability	✓			✓
	18.	Continually improve the automated processes	✓			
	19.	Reuse components to scale quickly and to reduce development costs	✓	✓		
	20.	Multiskill the robots	✓			

1. Strategic service automation requires cultural adoption by the C-suite

We have invested significantly in our strategy to put technology at the heart of all our businesses.—Ken Lever, Chief Executive, Xchanging Annual Report, 2014

According to interviewees, the client organizations in our study with C-suite support achieved the most strategic benefits from service automation.

One RPA provider explained, “The sites where RPA value has gone exponential is where the organization has culturally adopted automation in the C-suite, with the C-suite pushing it and driving it forward.” This cultural adoption was evident at UTILITY and Xchanging.

At UTILITY, automation was embraced by the C-suite as one tool to help the company deliver service excellence to customers while minimizing price increases through lower operating costs. By 2015, UTILITY had a sophisticated mix of human and robotic workers to meet these strategic challenges. Specifically, the onshore workforce dealing with business process was about 2500 people and 300 “robots,” with the robots performing the work of about 600 people. UTILITY’s CEO was the evangelist for the transformation programs and the role technologies, including RPA, contributed to them. He spoke about RPA to C-suite executives throughout the company’s regional divisions. That level of awareness and support is vital to an enterprise RPA capability.

Certainly, the Xchanging case highlighted this lesson, as Xchanging’s corporate motto is “technology at our core” and its RPA capability was prominently featured in its 2014 corporate annual report to shareholders.

Talking about other RPA adopters not included in our study, an RPA provider claimed that service automation delivered less value when RPA adoption was pioneered by middle managers with limited influence. He said, “Where we see a lack of exponential growth, it’s in just divisional implementations where the breadth of influence over the organization is just not wide enough for it to go any further. People across the organisation look at RPA as some sort of curiosity. Whereas when you’ve got that C-suite buy-in, that’s when you really get the traction.”

2. Include multiple expected benefits in business cases for service automation

When creating a service automation strategy, the business cases for automation projects should include multiple expected benefits. If clients only expect cost savings, they might miss opportunities to improve customer experience and employee satisfaction. Looking across the 17 client organizations that adopted service automation, organizations sought and

achieved a multitude of business benefits from service automation. Overall, the following business benefits were commonly reported:

- *FTE savings* reduced the overall costs of services.
- *A 24-hour service coverage* without having to do shiftwork because service automation tools do not sleep or eat.
- *Flexible virtual workforce* because software “robots” can be multiskilled (see Action Principle 20).
- *Consistent quality* because software “robots” do not make mistakes.
- *Higher compliance* because software “robots” are configured to follow if regulations and processes are all recorded and thus easily audited.
- *Faster service delivery* because software is faster than humans.
- *Faster deployment* of new functionality because service automation tools are easier to deploy than other IT solutions.
- *Highly scalable* solutions to meet surges in service demand.
- *Higher job satisfaction for employees* because dreary tasks were done by the software, freeing them to focus on tasks requiring judgment, empathy, and social interactions.

We focus the discussion of this lesson on the first and last bullets because they seem incompatible. How do FTE savings contribute to more satisfied employees? Doesn't the need for fewer human workers threaten employees? So far, all 17 client organizations reported FTE savings, which reduced the overall costs of services. However, none of the companies in our study used service automation to lay off employees. Instead, FTE savings freed employees to work on higher valued tasks. Many employees embraced service automation for precisely this reason.

3. Beware of hype

Absolutely, we see evidence of “RPA washing”; We see real differences in capabilities across the tools and providers. This is a new market with emerging technologies. Some are more mature than others.—Cliff Justice, Leader of US Shared Services and Outsourcing Advisory, KPMG

The terms “RPA washing” and “automation washing” refer to the phenomenon of companies spending more resources on advertising and marketing, claiming to have new service automation capabilities than actually building new automation capabilities. Although none of the advisors chose to elaborate, several advisors noted that they have seen some evidence of “service automation washing.” This causes confusion in the market, and leads to one of the biggest service automation challenges for clients: distinguishing hype from reality. Clients face a plethora of choices about service automation and can get lost among the hype, options, and buzzwords. Rob Brindley of ISG noted that the RPA market is “flush with technology providers and new ones enter the market every day.” How to make sense of the space? The next Action Principle offers an answer.

4. Understand that service automation is a continuum of many tools and platforms suited for different types of work

There are classes of automation, with the first and most common class being the rules-based automation with no machine learning or cognitive capabilities. These tools need to be “trained” and managed, and exceptions to the programmed process must be resolved by a human...Cognitive technologies are the game-changer. They learn from humans who provide expert knowledge as well as their own trial and error and interactions with other humans.—Cliff Justice, Leader of US Shared Services and Outsourcing Advisory, KPMG

Using the client examples, we gathered for this research, we thought about the service automation landscape as a Cartesian plane with the volume of work and degree of work complexity as a good way to classify the examples of service automation tools/platforms we examined (see Fig. 9.8). Process complexity increases as the data and rules become less structured, as the number of steps increases, and as the amount and variety of data increases.

The examples listed in Fig. 9.8 were described in the six adoption stories, including the examples of corporate earnings reports at the AP, SIM

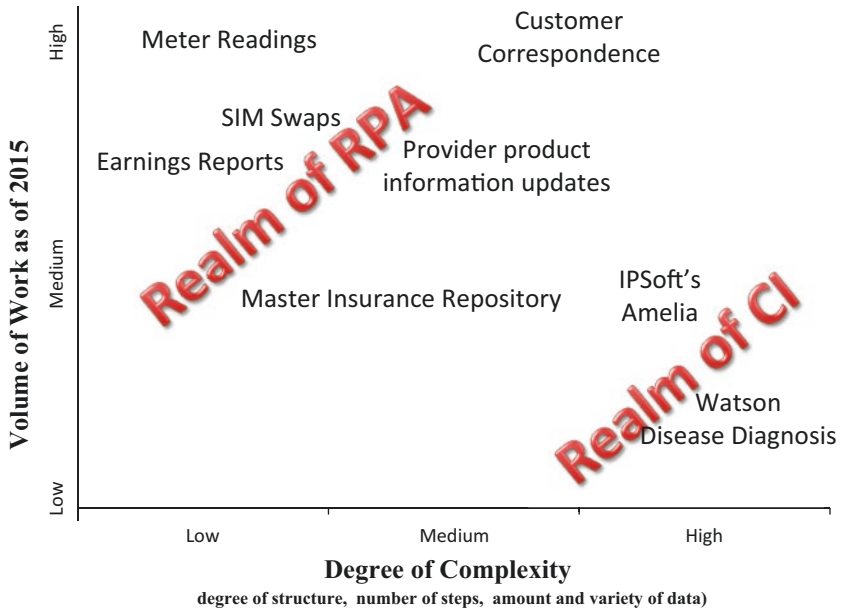


Fig. 9.8 Robotic process automation and cognitive intelligence tools

swaps at Telefónica O2, meter readings at UTILITY, provider product information updates at the VHA, customer correspondence at Virgin Trains, and master insurance repository updates at Xchanging. These clients adopted service automation for processes characterized by a medium to high volume of transactions and a low to medium degree of process complexity.

In contrast, CI, defined here as software that finds patterns among a vast amount and large variety of data, is well suited for more complex, less-structured tasks. Based on one product demonstration, IPsoft's Amelia displayed the ability to learn from conversations and to solve problems using relationships extracted from reading unstructured data like technical manuals. But from what we have seen, IBM's Watson is the "übermaschine" in this CI class. One application of IBM's Watson is cancer disease diagnosis—a highly complex task with perhaps hundreds of thousands of inputs with various levels of structure. As of 2013, Watson had access to over two million pages from medical journals, more than

600,000 pieces of medical evidence, and 1.5 million patient records.⁸ Watson has an unparalleled natural language interface and ranks its top answers with confidence intervals and the ability for humans to query Watson about where and how it got those answers. Initially, the volume of work (number of transactions) was quite low in this category because CI applications were still under development. They too will scale to medium to high volumes of work, particularly for CI applications aimed to answer customer queries.

The capability differences between RPA and CI tools are reflected in their prices and maturity; RPA is less costly and more mature than CI. As of 2015, the volumes for the CI tools depicted in Fig. 9.8 were low because the tools were still being trained. But again, we foresee that volumes for CI tools will scale quickly.

5. Consider carefully the best sourcing option

The open question is whether the service providers will be asked to provide the tool sets for automation or if their clients will prefer to license commercial tools themselves and just utilize the service providers' expertise to implement and optimize automation. Fears of technology lock-in may drive a preference to separate tools from services... There is also the rise of the new breed of service providers to consider. These are entirely focused on automated service delivery and could drive growth in consumption-based contract models.—Sarah Burnett, Vice President of Research at the Everest Group

Perhaps as a peculiarity of our research sample, the 17 client organizations in this study all adopted service automation themselves, usually with the help of the service automation tool provider. But based on the survey data (as well as based on our prior outsourcing research), we think it is important for other organizations looking at RPA and other service automation technologies to realize a fuller spectrum of sourcing options from:

- *Insourcing*: buy service automation software licenses directly from a service automation provider.

- *In-sourcing and consulting*: buy licenses directly from a service automation provider and engage a consulting firm for services and configuration.
- *Outsourcing with a traditional BPO provider*: buy service automation as part of an integrated service delivered by a traditional BPO provider.
- *Outsourcing with a new provider*: buy service automation from a new outsourcing provider that specializes in service automation.
- *Cloudsourcing*: buy service automation as a cloud service (still emerging).

The benefits of insourcing for client organizations in our study were that they had high levels of control and kept all cost savings. But other sourcing options also offer benefits. Many traditional BPO providers have developed significant automation capabilities, including Xchanging, Accenture, IBM, and Infosys. The benefits of engaging a traditional BPO provider include a full suite of integrated services that combine labor arbitrage, process excellence, change management maturity, and technology expertise. New providers that specialize in service automation like GenFour and Symphony are also emerging. GenFour, for example, is a licensed reseller of Blue Prism, Celaton, and Niu-Solution. But the real possibility lies in robotic cloudsourcing. While it may take months to train a software robot to perform a complex task, once it has mastered it, it would take just seconds to transform the learning to another software robot located anywhere in the cloud.

Action Principles for Service Automation Launch

We learned six lessons about successful service automation launches. Across our various sources, one common experience was that the service automation initiative was launched by a grassroots pioneer who was willing to take some risks (Action Principle 6). The most powerful proof-of-concepts were performed on processes visible to the organization (Action Principle 7). Of course, this visible process must also

be “automatable” (Action Principle 8). Many clients made gains from automating sub-processes rather than automating a process end-to-end (Action Principle 9). One client and one advisor suggested testing service automation capabilities with a controlled experiment (Action Principle 10). Most clients in our study leaned heavily on service automation providers for training and knowledge transfer (Action Principle 11).

6. Take some risks

I think as a pioneer in anything, whether it be RPA or digital customer services which is where most of my passion lies, I think if you seek permission for everything you do, everything slows down. Things can get stuck in governance for years and years.—Wayne Butterfield, Head of Back Office, Telefónica O2 (and subsequently ISG Group executive)

In a number of the client adoption cases, the initial champion of service automation was housed in business operations and was trying to solve business problems with very limited resources. We have a number of examples of service automation “pioneers” who were impatient and sought big results fast. They bought the service automation tools using their own budgets and pilot tested the software by training some of their own staff members. Indeed, one of the key attractions of service automation tools from Blue Prism, Automation Anywhere, and Automated Insights was that the solutions could be configured without computer programming skills. Thus, pioneers could control automation in business operations.

For a number of other pioneers in this study, their careers took off and were promoted within their firms because their risky, unflinching efforts paid off. Butterfield, for example, was promoted to Head of Digital Service Innovation and Transformation at Telefónica O2, and he eventually became General Manager of Digital Care for BT. The pioneer adopter of RPA at Xchanging, Paul Donaldson, eventually became the European Practice Lead on RPA at Alsbridge. Lou Ferrara, the RPA pioneer at the AP became Chief Content Officer at Bankrate.

7. Select exciting proof-of-concepts that remove pain points and will get noticed

Celaton were aware that this level of automation was uncharted waters for Virgin Trains and as a result were able to work with them on a proof-of-concept, which ran for three months, to enable them to gain trust and confidence in inSTREAM as a product.—Christian Clarke, Head of Customer Relations, Virgin Trains

Organizations are naturally skeptical of new technologies because new technologies often overpromise and under-deliver. Proof-of-concept cases are an important way to obtain realistic stakeholder buy-in; the organization needs to see substantial benefits. The clients we interviewed selected pilot projects on visible processes that delivered much more value than just cost savings to their organizations—they each removed tedious, dull, and monotonous work. We return to two of the client adoption stories to illustrate this principle.

For the AP, Lou Ferrara delivered a highly visible success story when he automated corporate earnings reports. His customers were thrilled to get coverage of more companies' earnings and the reports were delivered faster and more accurately than before automation. His journalists were thrilled to be assigned to more interesting stories. The uniqueness of the context gained Ferrara media attention. He's been asked to speak all over the world, including China.⁹

At the VHA, Chet Chambers saw a real business need—business operations staff was wasting time searching the Internet for product specification data. This task was dreary and high volume, as the VHA purchases hundreds of thousands of products for its members each year. By selecting this painful and visible task, Chambers was able to not only get buy-in but enthusiasm for more service automation in his firm. He too has gained external attention for his automation efforts.¹⁰

8. Develop criteria for the “automatability” of processes

This is a big one for us and which, I think, a lot of companies don't really understand. Don't automate a process that's not ready to be automated.

Stabilize it first. It's a basic Six Sigma principle. There's a lot of 'lifting and shifting' needed just to move a task from a human to a robot. In all of our processes, we keep a delivery lead in the process world, to standardize and streamline before we automate.—Paul Donaldson, Group Project Manager for Robotic Automation, Xchanging

Potential adopters want to know how to assess the suitability of automation for their existing processes. Different tools are suited for different work (Action Principle 4). Limiting the scope of this Action Principle to just RPA, *RPA experts and early adopters report that RPA is most suitable for processes with high transaction volumes, high levels of standardization, are highly rules-based, and are mature.*¹¹ High transaction volumes provide the most opportunity for reducing costs.¹² The easiest processes to automate with RPA have high degrees of process standardization so that all of the company's business units expect the same service and software only has to be configured one way.¹³ Processes that are highly rules-based are also easier to automate because RPA software needs explicit instructions.¹⁴ Mature processes are easier to automate because they are measured, well documented, stable, and predictable, and their costs are known.¹⁵ For Xchanging, stability was a major criterion as noted in the quote above.

In addition to these criteria, RPA can deal effectively with complex processes as long as complexity is defined as requiring compound steps and the control of many variables. (Some researchers define process complexity as processes where cause and effect are subtle and dynamic, in which case complex processes would not be ideally suited for RPA.)¹⁶ One of the advantages of RPA is that it is highly interoperable and can readily run on any platform—mainframes, client/server, or cloud systems because RPA only requires access to the presentation layer, that is, the screens the user sees. RPA software can be configured to log on to many systems and execute tasks. Early adopters have reported that compliance risks are minimal with RPA because every action executed by the RPA software is logged and thus auditable.¹⁷ Finally, Derek Toone, Managing Director at Alsbridge, suggested, “The degree of business value inherent in the process is worth considering in situations where significantly increasing the speed or accuracy with which a process is executed can yield outsized benefits to the business, for example in terms of enhancing

speed to market, product quality, customer satisfaction, regulatory compliance, etc.”

Of course, CI tools will have different criteria than RPA tools, and we are investigating these in ongoing research (Lacity and Willcocks 2018).

9. Make gains from automating sub-processes

So you're not going for the 100 percent automation, an all singing, all dancing solution. But you might go for a 30 percent first of all and then go for the next phase, up to 60 percent, and the set phase to 80 percent. An incremental approach allows you to manage your expectations and also makes sure that the foundations you're putting down in that system and for that process, are robust and secure and actually work and deliver.—
Manager from UTILITY

An end-to-end process usually will have many sub-processes, with some of those sub-processes being more suitable for automation than others. In the client case studies above, we saw that UTILITY, Virgin Trains, and Xchanging each automated the structured and rules-based tasks associated with an end-to-end process, and left the tasks requiring judgment and social interaction for humans. Beyond the example of the meter readings, UTILITY had since developed a mature demand management capability to identify processes that were worth automating. Within an end-to-end process, UTILITY automated a range of sub-processes from as high as 100 percent of the sub-processes automated to as low as 2 percent of the sub-processes automated.

10. Test service automation capabilities with a controlled experiment

Some clients will run dual proofs of concept with different automation technologies, for example, robotic process automation and business process management tools, to find the most efficient solution for their requirement.—Sarah Burnett, Vice President of Research at the Everest Group

Telefónica O2, back in 2010, did what most companies do when they are considering the adoption of a new technology: they did a proof-of-concept. An interesting twist extended the proof-of-concept into a

controlled experiment when Telefónica O2's IT department claimed that its BPM software could do everything the RPA software could do. A controlled experiment allowed Telefónica O2 to compare directly RPA with another BPM. Functionally, the solutions were nearly identical, but RPA delivered better financial value for the types of processes Telefónica O2 aimed to automate. BPM would have likely risen the victor if the automation required re-coding business logic or data access layers.

In prior research, we also found that a controlled experiment is the best way to assess provider capabilities. If clients gave two different RPA service providers the same process to automate in a controlled experiment, it would be an excellent way to compare their capabilities.

11. Lean on service automation providers for training and knowledge transfer

In the summer of 2014, we began testing the automation, having editors look over each earnings report automatically generated. We located bugs and had them fixed, and we worked in tandem with Automated Insights and Zacks, both of whom turned out to be great partners and remain so.—
Lou Ferrara, Vice President, The Associated Press

The clients in our study chose to implement service automation themselves, with significant help from their service automation tool provider. Clients in our study praised their service automation providers and called them, for example as Lou Ferrara did in the quote above, “great partners.”

When UTILITY first adopted RPA, Blue Prism trained about four client employees and provided mentoring, consulting, and co-development for the first set of automated processes. Initially, the RPA team composition comprised about 80 percent RPA provider staff to 20 percent UTILITY staff. By the time UTILITY adopted its fifth process nine months later, the ratio had flipped. The RPA team ratio became about 20 percent RPA provider staff to 80 percent client staff. Once UTILITY reached maturity, the provider's role became more advisory. As the RPA

provider account manager said, “Most of the consulting time is consumed for expansion and for helping the customer with ongoing best practices, upgrades, migrations, and the occasional complex system they may wish to deal with. So we are a trusted advisor and mentor rather than a body shop.” UTILITY’s RPA team composition evolution was typical also among other cases we studied.

Action Principles for Change Management

As several advisors noted, clients often underestimated the change management requirements for service automation. Four action principles help. Like all organizational changes, service automation needs a sponsor and a project champion (Action Principle 12). Given our focus, we learned that clients should let business operations lead the service automation initiative (Action Principle 13). However, business operations must bring IT onboard early (Action Principle 14) and must comply with the technology function’s governance and architecture policies. Clients must also pay careful attention to internal communications so that the staff knows what to expect and will not panic or sabotage the automation program (Action Principle 15).

12. Service automation needs a sponsor, project champion, and project manager

You need someone who is your head of robotic process automation and that person is going to be the evangelist, the person who owns and is responsible and is seen as being responsible within the organization for establishing this capability and then for growing it out across the Enterprise over a period of time.—Neil Wright, Director of Professional Services. Blue Prism¹⁸

Successful RPA projects need a senior sponsor, who might spend only 2–5 percent of his/her time on the issues, but who initiates the idea, underwrites the resources, and protects progress into business adoption and use. A project champion—like Paul Donaldson at Xchanging—will

provide between 40 and 80 percent of his/her time. The role involves communicating the vision, maintaining motivation in the project team and the business, fighting political battles, and remaining influential with all stakeholders, including senior management.

A strong project manager is needed, someone who understands how to get a program of projects delivered within budgets and schedules. Piloting, using a prototype “time-box” approach and a suitably chosen multi-functional team has been a widely accepted, effective approach to delivering IT-enabled business projects since the 1990s. Xchanging utilized something very similar for its RPA design and deployment. RPA users will be trained and assigned full time, along with IT specialist support. External resources may be needed to mentor, advise, and fill resource gaps. Certain users and managers from the business may need to be brought in to provide additional knowledge and reaction on an occasional basis. Co-location of team members also helps the key processes of team building, knowledge sharing, and mutual learning. “Time-boxing” gives a short deadline, for example, three months for a live business deliverable—in Xchanging’s case, for example, the first four processes. If this is not feasible, break the project down into a series of smaller projects, each with a business deliverable.¹⁹

13. Let business operations lead (so far)

The technologists will back it up and provide support but it’s got to be business driven, otherwise it would be perceived as being done to, not by, the business.—Adrian Guttridge, Executive Director, Xchanging Insurance

Potential service automation adopters often ask, “Where is service automation launched—in business operations, IT or in outsourcing provider firms?” In our research, we saw that service automation in 13 of the 16 client firms was launched in business operations. Among the client adoption stories featured above, Lou Ferrara (AP), Wayne Butterfield (Telefónica O2), Christian Clarke (Virgin Trains), Paul Donaldson (Xchanging), and UTILITY’s service automation champions worked and launched service automation in business operations. Chet Chambers (VHA) worked and launched service automation in IT. Since we are

studying the automation of business processes (not the automation of IT processes), it makes sense that business operations lead service automation. Paul Donaldson, the RPA lead, reinforced the message, “It’s in the innovation/business part very deliberately. I’m quite protective that it shouldn’t sit in the technology arm. My concern would be if you made it a technology project, you would over-engineer the process and you would end up delivering very little.”

For Blue Prism, this is totally consistent with previous implementations for a range of clients. Moreover, locating RPA in the business has been the underlying premise in their Enterprise RPA Operating Model, representing that distilled experience.²⁰ The empirical studies of small-scale and major IT-enabled business projects and of IT innovation for business value also support this finding over many years across industries and types of technology. Where there is a business goal, the technology is new to the organization, learning needs are high, and a multi-functional participatory team is required, then what Willcocks et al. (2011) call, in their book *The Outsourcing Enterprise*, an “adaptive/innovative” as opposed to a “technical” focus is the way to proceed.²¹ IT leadership is best only where the objective is the efficient use of existing technical know-how, the problem is a technical one, and the problem definition and the solution and implementation are clear.

14. Bring IT onboard early

Bring IT in under the umbrella as soon as you can. Your enterprise IT function may see RPA as a threat (or an unwanted distraction from their own programs) but you need to bring them along and not by leaning on the C-suite to do so, as without their active support with regard to the planning and management of the existing underlying application structure it will be nigh impossible to get this done successfully and then maintain the benefits over time.—Charles Sutherland, Chief Research Officer, HfS Research

Several early adopters, like Telefónica O2, adopted service automation without initially involving IT. The RPA software executed so many transactions in such a short period of time that Telefónica O2’s Fraud and

Security team tried to hunt down the presumed intruder. When security traced the intrusion to Butterfield's pilot project, he was nearly fired. Butterfield reminisced, "Although it was scary to be escorted by the Head of Security into a private room, we actually proved the RPA concept quite well!"

Butterfield and some other clients in our study said they excluded IT at the onset for two reasons: (1) service automation was seen as a business operations program since it required process and subject matter expertise, not IT programming skills and (2) fears that IT would beleaguer the adoption with bureaucracy. In all such instances, hindsight indicated that this was a poor approach; clients learned the importance of involving the IT department from the beginning. The lesson to be learned is, "Bring IT onboard early." IT can help validate that the software is enterprise worthy and can help build a scalable, robust IT infrastructure with business continuity safeguards.

IT can help validate that the software is enterprise worthy. Pat Geary, CMO for Blue Prism, said, "The minute we engage with business owners, we insist on speaking with the IT function. When we talk to IT, we explain that we have a product that is designed to appease their requirements for security, scalability, auditability, and change management."

IT can build a scalable, robust IT infrastructure. Sarah Burnett, Vice President of Research, Everest Group said, "Optimization of virtualization in the run time environment matters. Poor optimization can make robots slower than people." Certainly, the two early adopters that initially bypassed IT suffered latency problems. At Telefónica O2, it took about 16 weeks to optimize the infrastructure. The location of the servers, databases, and systems had to be moved to increase processing speed. Similar to Telefónica O2, the UTILITY team initially loaded the RPA software on its existing servers. The RPA "infrastructure" comprised servers with different power, memory, and operating systems which caused disparate performance and complicated management oversight. Once RPA was elevated to a strategic level, a uniform infrastructure was built. The RPA provider account manager, said, "They have a brand new shiny infrastructure which is delivered by one of the outsourcers. They've got 300 identical robots on the very latest servers in a shiny new data centre. So that's brilliant."

Paul Donaldson, Group Project Manager for Robotic Automation, Xchanging, said of IT's role in scalability: "A healthy relationship between IT and the business is vital...I have a kind of 'partner in crime'. He's a systems manager that works in the technology world, and has worked for me from day one. I know the infrastructure can scale up and down. If our processes tripled next week in size, we could probably fulfill that delivery for the processes that have been automated."

15. Pay careful attention to internal communications—send the right message to staff

How do we remove this fear? I'm going to lose my job; the robots are coming; they're going to take my job off me. Remove that fear by selling the positives, the values associated with what it'll mean is as human beings you're not having to do the boring mundane jobs anymore, that you can focus on the value-add jobs like interacting with customers.—Neil Wright, Director of Professional Services, Blue Prism

Across our case studies, we have seen clients use service automation tools to automate very repetitive and boring work, freeing up internal staff to work on tasks that are more varied, complex, and interesting. So far, we have not seen internal layoffs directly attributable to service automation—the internal staffs had been redeployed to other business activities or service automation helped to avoid adding headcount. When staff members were not threatened by automation, they welcomed the benefits of fewer repetitive tasks and more customer-facing roles. At UTILITY, RPA has been around for so long that it is not perceived as a threat. One senior executive told us: "People see automation as an opportunity to improve what they do."

Xchanging took a very open approach to internal communications, making RPA visible across insurance operations, creating newsletters and road shows, saying in practice "this is what's happening, this is when it's happening, come and see." Donaldson also made sure the operations teams were engaged to support the project and understood what it meant for them 6–12 months down the line, in terms of opportunities. Richard Hilditch of Blue Prism fills out the picture: "All the Xchanging people I

spoke to were very excited. I think Xchanging positioned it very well, they had regular communications. It got very high visibility at senior management because of the benefits it would bring. They have Group-wide communications about where the project is, where they are on this robotic journey and what the robots are doing...You could go into their new main London office and see a massive screen that shows all the robots working just because they want to showcase what these robots are doing.”²²

But what if RPA will be used to significantly reduce internal headcount? Prior research on outsourcing and offshoring found that communicating the intended effect on jobs early in the process was by far the best practice.²³ For outsourcing and offshoring, senior executives were reticent to share a sourcing strategy until all the details were planned, reasoning it would be better to have most of the answers prepared before making an official announcement. In a communications vacuum, however, employees always overestimated job losses. In many case studies, staff members panicked and some even sabotaged the outsourcing/offshoring initiatives. The best time to announce outsourcing and offshoring was when organizations were ready to search for service providers.

Action Principles for Building Mature Service Automation Capabilities

The ultimate goal for many clients in our study was to build an enterprise-wide automation capability. Mature service automation capabilities have evolved beyond proof-of-concepts initiated in a single business unit to create an organization-wide competency. Although there are several ways to govern a mature service automation capability, we have found that a Center of Excellence (CofE) that serves as a shared organizational resource is a recommended practice (Action Principle 16). Staffing a CofE requires organizations to rethink talent development and the skills needed for an enterprise automation capability (Action Principle 17). A mature service automation capability is constantly learning. It has several feedback loops that serve to strengthen the capability over time. The first feedback loop continually improves the automated processes as the CofE continues to

work with the business units to potentially automate more functionality of a live process (Action Principle 18). The second feedback loop increases the CoffE’s productivity as more reusable components are added to and taken from an automation library (Action Principle 19) and as robots are multiskilled so they are never idle (Action Principle 20). Figure 9.9 brings many of these lessons together to depict a mature service automation operating model.

16. Establish a Center of Excellence

The main duties of a CoffE are demand management, feasibility assessment, development of business cases for each automation project, project prioritization, automation development, automation implementation, monitoring and support, and continuous improvement. A CoffE also establishes standards and best practice and tracks the business performance of service automation.

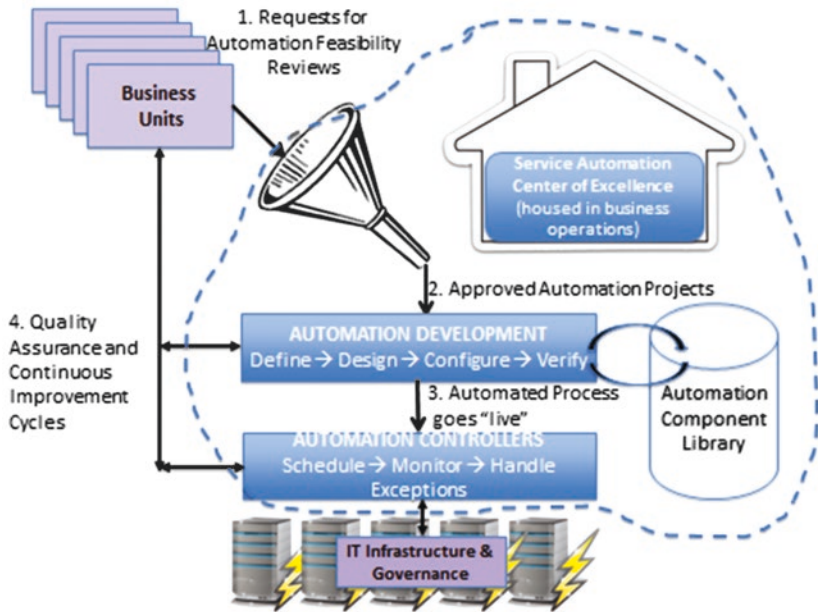


Fig. 9.9 Mature service automation operating model

Among all of our cases, UTILITY had the most mature service automation capability, which makes sense, given that they were the earliest adopters of RPA back in 2008. Thus, we use UTILITY to illustrate the composition and tasks of a typical service automation CoFE. UTILITY structured service automation governance using a federated model. The CoFE was part of the domestic residential business, not as part of the IT department, which was the norm among our cases. The CoFE comprised about nine people, an RPA manager, four developers, two control room staff, a configuration coordinator, and a portfolio analyst. Distributed RPA teams were housed in three other business units. These were small groups of two to four people.

At UTILITY, the CoFE consisted of two main teams. A Development Team did the work of definition, design, configuration, and results verification. The Control Room team then was responsible for operations management and deploying the robotic workforce. Both teams complied with the IT function on governance, security, and compliance.

The CoFE at UTILITY managed service automation demand (see number 1 in Fig. 9.9). Demand for automations typically came from customer transformation programs and from operational teams in the business divisions. Demand was quite high, with anywhere between 10 and 30 processes somewhere in the development cycle. Candidate processes for automation were put through the pipeline where the CoFE assessed its automation worthiness. The CoFE gathered local work practices, also known as standard operating procedures. The team also needed transaction volumes and transaction frequencies. It needed to know response time, for example, and whether there were backlogs of work. The CoFE, in cooperation with the requesting business operations area, developed a business case if automation looked promising. With clear instructions on how the process worked and what the transaction times were, CoFE produced a project initiation document. That document was then signed off by the business users, the automation developers, and any other invested parties before the development started (see number 2 in Fig. 9.9).

The CoFE used RPA Developers to build the automated solutions and a Control Room team to operate the software robots once they were in production. The RPA developers were heavily involved with business stakeholders and operations team in the beginning. The RPA developers

documented the project, developed the RPA solution, tested the solution by verifying results, and then handed it over to the Control Room team once the robots were live. The Control Room team then took over full management of the live RPA process, including interacting with the business operations folks to coordinate the daily stream of work, the output reports, and exceptions (see number 3 in Fig. 9.9). Besides the normal Control Room work, CofE aimed to continually improve the solution. The Control Room team also received change requests directly from business operations users, which it handed back to the RPA developers. So the cycle of improvement continued (see number 4 in Fig. 9.9).

17. Rethink talent development for skills needed for an enterprise automation capability

Our primary learning, at this point, is that you are better served to segregate the process of automation into distinct components. Our configuration team was gathering and writing business requirements, doing the configuration in the tool, doing the testing and validation, and completing all of our documentation requirements for each automation activity. While this provided the team with a great perspective on the end-to-end activity, it did not allow us to gain the efficiency of someone specializing in each of those functions. It also assumed that the skill sets to be effective at each stage of the automation lifecycle were transferable. We have started the process of dedicating the automation team members into business requirements and documentation specialists, process modeling specialist and configuration specialists. This will allow us to increase our output by putting a specific focus on each of the stages of automation.—A.J. Hanna, Sr. Director Operations Support, Ascension Ministry Service Center

As the above quote attests, organizations need to rethink the skillsets needed to perform business services as they build automation capabilities. A mature service capability has a well-developed idea of the skillsets needed for the various service automation roles. UTILITY certainly did; it looked to recruit RPA Developers from among the operations staff who possessed a strong understanding of the business, a logical mind, and preferably had a systems analysis background. The overriding requirement to be on the RPA team was to be able to extract logical structures

from chaotic business data so that prescribed algorithms can be built. IT skills were also valued, but one manager said, “We’re not IT staff but we have staff with IT skills.”

For the Control Room staff, UTILITY looked to recruit people who were organized, methodical, logical, and had a consistent approach to work. Controllers needed to plan the day and organize the workload vis-à-vis other system priorities such that the correct work was sequenced and the correct numbers of robots were activated. The Control Room staff also needed good communication skills because they interacted with business operations people when they spotted any issues or anomalies.

One astounding fact about UTILITY’s Control Room team was that there were only two people controlling a workforce of 300 robots. At peak times, these two controllers orchestrated the work output equivalent to 600 or more people. An RPA service provider executive explained, “You know, when you think of that compared with a typical human workforce structure where you might have a team leader per ten or 20 people and then you’ve got an operations head maybe in charge of 50 people, you’re replacing seven to ten managers with just two people. That’s another interesting cost-saving dimension to robotics really.”

18. Continually improve the automated processes

What we launched in August 2014 is very different from what we have now. Anyone that deploys a process and just leaves it will not get the full benefit. It’s only from seeing it live in practice where you find the unknowns that happen in the production world. You can simulate tests to your heart’s content but can’t really get all of those live behaviour. I can show you some great results where we’ve over-doubled the benefits. Simple tweaks in the process—for example simulating ‘if I can save five seconds on that item by not logging out this way and logging in this way’—we can easily extrapolate that up and you can get that extra benefit from the virtual workforce because you can guarantee that behaviour will always be done in exactly the same way.—Paul Donaldson, Group Project Manager for Robotic Automation, Xchanging

Continual improvement is an important theme that arose across the cases (number 4 in Fig. 9.9). Complementing the Xchanging quote above,

UTILITY also used a phased approach to continually improve automated processes. The CofE at UTILITY does a Phase 1 that gets the process up and running, knowing full well that a secondary development will come along to give further improvement. Since every context was slightly different, and there was always something new to learn, UTILITY was in a state of “continual prototyping and improving.” Whenever RPA was going to be deployed for the first time to a new system, UTILITY recruited a small team to prototype a simple process. Once the simple process was up and running, the team was expanded to add more functionality. An incremental approach allows the CofE to manage expectations and also makes sure that the foundations are robust, secure, and actually work as expected.

19. Reuse components to scale quickly and to reduce development costs

Once you’ve trained a robot to do one thing, let’s say open or send an email, you could use that logic in tens if not hundreds of processes. You’ve not got to train the robot for every time you want to use it...other robots you want to activate will follow suit exactly.—Richard Hilditch, Engagement Manager, Blue Prism²⁴

Figure 9.9 depicts an automation component library that increases the service automation productivity as more reusable components are added to and taken from the library.

As of summer 2015, the development times for implementing an RPA project at UTILITY had been reduced between 30 and 40 percent because of the reusable components. As UTILITY built a library of robotic processes, they were reused on other automation projects. Business operations groups now understood the technology and were increasingly asking the CofE: “Can you automate this? You’ve done another one similar and I’ve seen other departments use automation, can you give us a solution?” With RPA, the turnaround time was much faster than for requested changes in the mainframe system. The RPA provider account manager explained further how component reuse lowered the development costs. He said, “It’s a self-fulfilling prophecy, the more processes you automate, the more objects you build in your robotic library, therefore, the more reuse you get, therefore, the assembly and delivery

costs of those objects into new processes becomes more and more economic.”

20. Multiskill the robots

Multi-skilling. I'm amazed people don't do this...Get all robots on your virtual servers able to do any process. You can get them doing stuff when they've got no other work to do, and it doesn't cost you anything extra. It's an easy win that few follow.—Paul Donaldson, Group Project Manager for Robotic Automation, Xchanging

Another productivity booster is multiskilling the software robots. For one financial service firm in our study, the fact that robots can be multiskilled was a real benefit. A senior executive said, “A piece that I think is very attractive is the ability to use the robots on multiple tasks. From a robot, I just say, task number five, do the payroll run this morning and in your downtime, go over and do this task in accounting that's at a different time of day and that, I can see, is incredibly powerful.” In contrast to robots, the human workforce tends to have specialist skills that cannot be dynamically re-routed to balance out demand fluctuations. A payroll clerk typically cannot, for example, be asked to perform the work of an accounting clerk to balance out workloads.

To summarize this section, we have identified 20 action principles that clients, providers, and advisors said which led to successful service automation outcomes. As of now, we have not reported on the effects of service automation on outsourcing decisions and relationships. In the next section, we present data from the survey and interviews that address a further research question, as an appropriate way of bringing this book to a close.

How Does Service Automation Affect Outsourcing?

In this section, we address this research question by drawing on the results of the client adoption stories, the survey, and advisor interviews.

Client Insights

From the 17 client adoption stories, we have very little data on the effects of service automation on outsourcing decisions and relationships. In two of the cases we studied, Telefónica O2 and UTILITY used service automation to reduce FTE headcounts in the outsourcing provider firms by a few hundred people. Probably, this is less politically sensitive so clients will do more of this. In these two cases, offshore processes were reshored, but no new jobs were created onshore—they were done by the robots.

Despite these high levels of automation, Telefónica O2 continued to have a good relationship with its Indian-based BPO provider. Although the provider's FTEs had been reduced on the automated processes by a few hundred, the BPO provider continued to deliver the non-automated back office processes with about 250 FTEs. (Without automation, the offshore FTE headcount would be closer to 500 because of Telefónica O2's growth since 2010.) Beyond the back office, the BPO provider also handled nearly all of Telefónica O2's email and web chat services. In total, the BPO provider had about 900 FTEs supporting Telefónica O2 in first quarter of 2015.

Xchanging provides a third interesting case as it relates to offshore sourcing because it automated processes in its offshore delivery center and kept the processes offshore. While there was a big debate around whether automation would see the repatriation of work from offshore sites, Xchanging argued in its internal messaging that in its case there was no strong rationale for this. Xchanging had no quality problem with its many offshore sites that spanned work in Business Processing Services, Technology and Procurement, and repatriation would not produce a significant cost differential. Offshore processing was already highly efficient. Rather, in practice, automation could be applied in those offshore sites to further improve performance where needed, for example, in speed, and may well mean new job opportunities.

Survey Insights

Turning to the survey results for more insights, we asked clients, providers, and advisors about the effects of service automation on clients' sourcing decisions (see Table 9.5).

Table 9.5 Automation and sourcing decisions (1 = strongly disagree; 7 = strongly agree)

Survey question: client version	Average client response (n = 63)	Survey question: provider version	Average provider/ advisor response (n = 80)
3. My organization is taking the lead on automating business services—we are not waiting for providers to help us.	3.0	3. My clients are taking the lead on automating business services—they are not waiting for providers to help them.	4.1
4. My organization needs help in assessing how automation could affect our business and IT services.	4.5	4. My clients need help in assessing how automation could affect their business and IT services.	5.0
5. My organization primarily relies on service providers to automate business services.	5.0	5. My clients primarily rely on service providers to automate business services.	4.7
6. My organization places heavy weight upon providers' automation capabilities when choosing among different providers.	4.0	6. My organization places heavy weight upon our automation capabilities when selling services to clients.	4.4
7. My organization is more concerned about the cost and quality of staff than with automation when making sourcing decisions.	5.5	7. My organization is more concerned about the cost and quality of our staff than with automation when selling services to clients.	4.3

On average, clients reported that they were NOT taking the lead on service automation. Most clients agreed that they relied or planned to reply on providers to automate client services. However, clients indicated that in their sourcing decisions, costs and quality of a provider's staff was more important than a provider's automation capabilities. Talent still trumped technology when choosing among providers (Lacity et al. 2015).

Rob Brindley of ISG corroborated the survey finding that clients still cared more about the provider's people than technology, but added, "However, clients are continuously looking for providers to demonstrate how they will be more efficient and productive. Initially, this was through process discipline and efficiency, and then labor arbitrage. Providers are now differentiating themselves through the use of technology and automation to create value for the client. Additionally, where clients have sourced, we are seeing providers utilize automation as a method to satisfy their committed innovation requirements."

Provider and advisor survey respondents shared the same perceptions as clients on these sourcing questions, except for their perceptions regarding client-led automation. Whereas clients reported they were NOT taking the lead on services automation, providers and advisors neither agreed nor disagreed that clients were taking the lead.

Advisors Insights

Of all the sources of data, advisors provided the most insights on the effects of service automation on outsourcing. All advisors agreed that automation changes outsourcing. One of the boldest assertions came from Cliff Justice of KPMG when he said, "I have called service automation the 'death of outsourcing' as we know it." So, what will change? According to all the advisors—service automation is affecting pricing models, value propositions, and location advantages.

Pricing Model Effects

For decades, the main cost component of an outsourced service has been the providers' labor; a provider's labor arbitrage advantage was a major source of value and justified FTE-based pricing. Because service automation replaces some or even much of that labor, it requires pricing mechanisms that are based more on outcomes and transactions. Indeed, Sarah Burnett from the Everest Group already sees these shifts in her clients' outsourcing contracts: "It is already changing the commercials of contracts. As delivery teams shrink we will see

more outcome and transactional pricing blended with other models for service delivery.”

Charles Sutherland encouraged clients to get service providers to automate within existing contracts but warned clients that they will need to incentivize providers if the current contract is based on FTE pricing. He said, “Get this done within the existing contract, where possible. Your service provider may be super willing to undertake RPA if your existing arrangement is fixed-fee or transactionally priced but also work with them to incentivize this opportunity under FTE based contracting arrangements as well which may require bringing in senior executive sponsorship.”

Value Proposition Effects

As far as shifting value propositions, the advisors all note that providers have either (a) already leveraged automation or (b) are planning to leverage automation as soon as possible. Charles Sutherland from HfS (at the time) explained, “All of the major service providers are budgeting for and building new capabilities in automation across IT and business service delivery at the same time as they are changing their solution and commercial models to reflect this new reality. Every outsourcing contract that is up for renewal is being subjected to an automation applicability review because if the incumbent service provider doesn’t do this, competitors willing to do this analysis and build it into their pricing today will replace them.” Rob Brindley predicted that there would be a shakeout among providers “until leaders emerge and providers rationalize and consolidate into a mature industry.”

Location Effects

According to the advisors, automation will affect location decisions more and more as service delivery increasingly will be done through combinations of machine and human labor. As the relative size of a delivery team shrinks, the value of low-cost locations diminishes. Sarah Burnett thinks the mix of offshore/nearshore/reshore locations will

change: “Over time, we might also see a shift from offshoring to near-shoring or re-shoring, as automation replaces some aspects of labor arbitrage. It will not replace all FTEs and there will still be an advantage to arbitrage, for example, cheaper overheads for automation. It is the mix of locations that is more likely to change.” Derek Toone saw that as labor became a smaller component of service delivery, onshore service delivery would become more attractive: “If adopted, RPA/service automation, will materially affect location decisions for services which have previously relied heavily on availability and cost of labor for a given skill-set. For outsourced services, RPA/service automation will not entirely eliminate the need for labour and if a given skillset is readily available in a lower cost location, that will continue to be a business driver for using that location. However, as labor becomes a smaller component of overall service delivery, then the weight of the counterbalancing factors (e.g., language, time zone, culture, IP security, etc.) will begin to more often tip the scale in favor of using onshore service delivery.” Cliff Justice believed automation would make location less relevant, particularly as automation moves to the cloud.

Our Insights

We see real disruption in this overall growth pattern. Outsourcing will increasingly change its character, as providers themselves adopt new technologies and build and offer services based on them. Through 2015–2018, RPA and other service automation tools were increasingly appearing in renewed and newly signed contracts. Our research suggests that a number of disruptors will impact the traditional outsourcing scene more forcefully. Cloud computing vendors such as Amazon and Google and cloud platform providers such as IBM and Microsoft have enough market clout to move on from impacting SMEs to move up the value chain with larger corporations. Software-as-a-Service (SaaS) could seriously impact outsourcing as an option in many important back office functions such as accounts payable, indirect procurement, payroll, and benefit administration. Using software over the Internet, companies may spend

much more time serving themselves through their own managed services. Robotics-driven vendors operated at the bottom of the BPO stack as of early 2016. Yet, if the 20–30 percent or more promised cost reductions, and the other benefits detailed throughout this research based on robotics do materialize, as they already have been, the technology will find bigger markets. We have researched SMEs who were born in the cloud who are unlikely to switch out of their cloud computing and automation environments (see Chap. 7). We will see many more of these SMEs coming along over the next five years.

Our 2012–2016 studies reported in Chap. 7 found majors like Proctor & Gamble, Johnson & Johnson, the Commonwealth Bank of Australia, and News Corporation well into implementing their cloud computing strategies. Many other majors are likely to follow suit in the next five years. All these trends imply less outsourcing or at least a change in its character. The cloud providers themselves have been very aware of the coming change, and they have been already responding. Undoubtedly, the next round of contract renewals across 2017–2018 will see providers adjusting their services to reflect these developments.

As we have seen, a typical estimate from our most recent case study research is that robotics provides, conservatively, a 20–30 percent cost reduction. If robotics meant a universal reduction in FTE employee costs of say 25 percent and labor-intensive outsourcing providers' total revenues are growing only by 5–6 percent annually at the moment, then unless they themselves adopt automation, overdependence on cheap labor will put them into economic difficulties. However, several outsourcing providers have a head start in automation. Moreover, there are clearly definable limits to the applicability of robotics and thus their impact on jobs and outsourcing practices.

If the above scenario is correct, then client companies will be able to lose a lot of headcount not through outsourcing but through automating. Meanwhile, outsourcing providers may combat the automation-based insourcing threat by offering cheaper automated solutions of their own. The likely outcome on a ten-year horizon is to see a slowing down of outsourcing growth among service providers, who will also be moving increasingly from labor arbitrage to automated service offerings.

Research Limitations

This research has a number of limitations. Key participant interviews have two main drawbacks: informant bias and random error (Marshall 1996). Multiple interviews with different stakeholders are recommended to compensate for the weaknesses of bias and error (Tremblay 1957). For this research, we interviewed three key stakeholders (clients, providers, and advisors), and their views were highly consistent, which demonstrate reliability. However, the interviews were not selected at random; they were volunteers and the sample is very likely biased toward successful cases. In order to truly validate an “action principle,” the sample should include failed service automation adoptions to show a stronger causal link between an action principle and an outcome. Furthermore, the client case studies are all examples of service automation tools that fall closer to the RPA than CI continuum. Only Virgin Trains is a client adoption story using a product that focuses on unstructured data (Celaton). Clearly, more research is needed to investigate the capabilities of CI tools such as IPsoft’s Amelia and IBM’s Watson. We provide this in a later book—Lacity and Willcocks (2018).

Conclusion

While using software to automate work is not a new idea, interest in service automation certainly escalated across the 2016–2018 period with the introduction of new technologies including RPA and CI tools. As at 2018, many potential adopters of the new types of service automation tools remained skeptical about the claims surrounding their promised business value. Although the 17 organizational adopters in our study operated in different industries and adopted different automation tools, they reported common benefits. These benefits included doing more work with fewer humans, improving service quality, executing services quicker, reducing service costs, extending service coverage to 24 hours without shiftwork, increasing work team flexibility because software was configured to execute multiple processes and could be deployed where needed, increasing compliance because software was configured to follow

regulations and is easily audited, and most surprisingly, increased employee job satisfaction. To achieve such results, research participants identified 20 lessons, which we call action principles, which other organizations can enact. The action principles address defining a service automation strategy, launching successful service automation initiatives, preparing the organization for the changes service automation induces, and building enterprise-wide service automation capabilities. Pertaining to the effects of service automation on outsourcing, some client organizations reported some processes being reshored and job losses among their service providers. However, advisor interviewees reported that service automation will increasingly affect outsourcing contracting, pricing models, value propositions, and location advantages.

As we conclude this final chapter of a book on outsourcing and dynamic innovation, it is useful to speculate on the future of outsourcing and automation. All commentators predict continuing growth in the IT and BPO markets across 2018–2023, but, as we saw in earlier chapters, the move is toward digital and Software-as-a-Service models. These trends present innovation challenges and opportunities for clients and suppliers alike. Meanwhile automation represents a real threat to the labor arbitrage model that so much of the outsourcing and offshoring industry has been built upon.

Much has been predicted about the effects of automation on the nature of human work. Some pundits expect that automation will leave very few tasks for humans other than lawn mowing and hairdressing. Based on our most recent data (Lacity and Willcocks 2018), we predict a different future for the automation of knowledge work. In the next five years, we think that workgroups increasingly will comprise both human and robotic FTEs, and each will be assigned tasks for which they are ideally suited. The robots will very quickly extract, consolidate, and re-arrange data for humans to make judgments upon. We are seeing this today, but in the future, the robots might not need as much pre-configuration or as much structured instructions. Many of the clients across our automation studies wanted to tackle next unstructured data with CI automation tools. They wanted robots to read unstructured text, such as text messages or emails, and decipher what it means. The benefit is that robots are very fast, and the ability to rapidly process huge amounts of unstructured data

and present an interpretation in real time would greatly enhance customer service. They also wanted CI tools to link with RPA tools and business analytics. By 2017, the RPA, CA, and artificial intelligence was around US\$7.5 billion. We believe that by 2024, the combined markets will amount to US\$30 billion. By then, many digital technologies will be converging and being utilized combinatorially. All this requires immense innovation, but will also prompt further innovations, not least in business models and strategic positioning. The outsourcing industry will need to stay dynamic, and collaborate on innovation, if it is to adopt emerging technologies, service clients, and stay competitive.

Notes

1. <http://outsourcemagazine.co.uk/i-am-robot-will-rpa-revolutionise-the-bpo-industry/>
2. <http://www.ask.com/world-view/traditional-cognitive-intelligence-4031394dc27fcd07>
3. These articles discuss the uses and appropriateness of key participant interviews as a research method:
 - Elmendorf, W., and Luloff, A. (2006). "Using Key Informant Interviews to Better Understand Open Space Conversation in a Developing Watershed" *Arboriculture & Urban Forestry*, 32: 54–61.
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4. Source: https://en.wikipedia.org/wiki/Virgin_Trains

5. Estimate calculated as follows: 32 hours per day time 7 days a week (since trains run daily) equals 224 hours per week of work. Assuming an FTE works 35 hours per week, the weekly FTE effort is 6.4 FTEs. After automation, the task was done in 4 hours per day, or 28 hours per week, or 0.8; This total FTE savings are nearly 6 per week.
6. By May 2015, it was taking the robot five minutes to deal with 25 LPANS, which formerly took a human two hours and five minutes to do.
7. Poppy was named after the day the idea was thought of—Remembrance Day November 2014. Interview with Amanda Barnes, Xchanging May 2015.
8. “IBM’s Watson is better at diagnosing cancer than human doctors”, Wired, February 11, 2013, <http://www.wired.co.uk/news/archive/2013-02/11/ibm-watson-medical-doctor>.
9. Source: “The Impact of Robotic Process Automation on BPO,” presentation at the Automation Innovation Conference, New York City, December 10, 2014.
10. For example, Chet Chambers has spoken at the launch of the Robotic Process Automation Chapter of the IAOP in Dallas on July 9, 2015.
11. Discussion from The Robotic Automation Advisory Council, Chicago Illinois, April 14, 2015.
12. This study summarizes processes suitable for outsourcing: Lacity, M., and Willcocks, L.P. (2012). *Advanced Outsourcing Practice: Rethinking ITO, BPO, and Cloud Services*. Palgrave, London; This study looks at processes suitable for shared services: McKeen, J., and Smith, H. (2011). “Creating IT Shared Services”. *Communications of the AIS*, 29 (34): 645–656.
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14. For example, see: Srikanth, K., and Puranam, P. (2011). “Integrating Distributed Work: Comparing Task Design, Communication, And Tacit Coordination Mechanisms”. *Strategic Management Journal*, 32 (8): 849–875.

15. Bidwell, M. (2012). "Politics and Firm Boundaries: How Organizational Structure, Group Interests, and Resources Affect Outsourcing". *Organization Science*, 23 (6): 1622–1642; Lacity, M., and Fox, J. (2008). "Creating Global Shared Services: Lessons from Reuters". *MIS Quarterly Executive*, 7 (1): 17–32.
16. For a comprehensive set of process complexity measures see: Day, A. (2009). "On Process Complexity". R. Downey and P. Manyem (Eds.), *In Proc. Fifteenth Computing: The Australasian Theory Symposium (CATS 2009)*, Wellington, New Zealand. CRPIT, 94. ACS. 29–34; Shen, W., Hsueh, N.L., and Chu, P.H. (2011). "Measurement-Based Software Process Modeling". *Journal of Software Engineering*, 5: 20–37. Gruhn, V., and Laue, R. Complexity Metrics for Business Process Models. *University of Leipzig Working Paper*, available at: <http://czm.fel.cvut.cz/research/BPM%20Research%20knihovna/Complexity%20Metrics%20for%20Business%20Process%20Models.pdf>
17. Panel discussion, "The Impact of Robotic Process Automation on BPO", *Automation Innovation Conference*, New York City, December 10, 2014.
18. Interview with Neil Wright, Director of Professional Services, Blue Prism, March 27, 2015.
19. Our recommendation on IT-enabled business projects has been to go for "dolphins not whales," that is, small projects based on iterative learning, with quick business payoffs, though the technology used must be consistent with the IT architecture and infrastructure of the organization. Large "whale" projects tend to go over budget, experience time delays, and sub-optimize on delivery.
20. A much more detailed discussion of the Enterprise RPA Operating Model appears in later papers, where the model will be compared against our analyses of a series of RPA case studies and their results.
21. See also Lacity, M., and Willcocks, L.P. (2014). *Nine Keys to World Class Business Process Outsourcing*, (Bloomsbury, London) especially chaps. 8 and 10. Also Cullen, S., Lacity, M., and Willcocks, L.P. (2014). *Outsourcing—All You Need To Know*, (White Plume Publishing, Melbourne). The academic findings are remarkably consistent over many years. See for example Willcocks, L.P., Feeny, D., and Islei, G. (1997). *Managing IT as a Strategic Resource* (McGraw Hill, Maidenhead), especially chaps. 6–10.
22. Interview with Richard Hilditch, Engagement Manager, Blue Prism, April 19 2015.

23. See Practice 4 on pages 20–22 in Lacity, M., and Rottman, J. (2008). *Offshore Outsourcing of IT Work*. Palgrave, UK.
24. Interview with Richard Hilditch, Engagement Manager, Blue Prism, April 19, 2015.

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