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Effectiveness of Interorganizational (B2B) Selling: The Influence of Collaboration, Initiator, Market Segmentation, Product

by

George Talbert

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree

Of

Executive Doctorate in Business

In the Robinson College of Business

Of

Georgia State University

GEORGIA STATE UNIVERSITY

ROBINSON COLLEGE OF BUSINESS

2018

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ACCEPTANCE

This dissertation was prepared under the direction of the *George Talbert* Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration in the J. Mack Robinson College of Business of Georgia State University.

Richard Phillips, Dean

DISSERTATION COMMITTEE

Dr. Subhashish Samaddar (Chair)

Dr. Wesley Johnston

Dr. Scott Inks (External – Kennesaw State University)

DEDICATION

This dissertation is dedicated to my amazing family, who loves me, provides encouragement and support, and who never wavered in helping me drive toward my objective of becoming a professor and Doctor of Business Administration. Your unyielding support and sacrifice is humbling. I pray that someday, I can repay each of you for all you have done for me.

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TABLE OF CONTENTS

DEDICATION iv

ACKNOWLEDGEMENTS vi

LIST OF TABLES x

LIST OF FIGURES xvii

I INTRODUCTION AND THEORETICAL BACKGROUND 1

II LITERATURE REVIEW 8

  II.1 Theory 8

  II.2 B2B Collaboration and Sales Performance 14

  II.3 Personal Selling 19

  II.4 Location 26

  II.5 Products and Customer Market Segments 27

  II.6 Buyer Loyalty 28

III RESEARCH MODEL 31

  III.1 Dependent Variables (DVs) 31

  III.2 Independent Variables (IVs) 32

IV METHODOLOGICAL APPROACH 34

  IV.1 Exploration of Secondary Case Data 34

V METHODS 38

  V.1 Study Design 39

  V.2 Data Acquisition 40

  V.3 Case Boundary 41

  V.4 Case Data (Interviews) 43

VI DATA PREPARATION AND CLEANSING 47

VI.1 Coding of DVs and IVs 51

VI.2 Exploration with Descriptive Statistics 64

VII ANALYSIS AND RESULTS 66

VII.1 Univariate Analysis 66

VII.2 Bivariate Analyses 71

VII.3 Multivariate Analysis 103

VIII DISCUSSION 109

IX LIMITATIONS 128

X CONCLUSIONS AND FUTURE DIRECTIONS 130

APPENDICES 133

APPENDIX 1: Case Descriptives 133

APPENDIX 2: Coding 136

APPENDIX 3: Univariate Analysis 139

APPENDIX 4: Bivariate Analysis 145

APPENDIX 5: Multivariate Analysis 190

APPENDIX 6 – Contract Value vs. Strategic Alignment 199

APPENDIX 7: IRB 202

REFERENCES 207

VITA 224

LIST OF TABLES

Table 1: Factors that differentiate B2C and B2B 16

Table 2: Evolving Concepts of the Stages of Personal Selling 20

Table 3: Co-creation Literature. Major Contributions in the B2B Space............................. 23

Table 4: Characteristics of procreation versus co-creation 25

Table 5: Description of Study 40

Table 6: Secondary Data Collection Process 45

Table 7: Interview questions explored & deemed useful for this study................................ 46

Table 8: Manipulations Performed on Secondary Data for Analysis 47

Table 9: Summary of Coded DVs and IVs 53

Table 10: Original coding of proactive responses in 18 categories. 55

Table 11: Market Segments- Initial coding of 27 segments 58

Table 12: Market Segments, Condensed 59

Table 13: Final Product and Service Type 59

Table 14: Descriptive Statistics for Continuous DVs (DV1, DV2, DV5)............................... 67

Table 15: Interpretation of the scatter plots... 78

Table 16: Bivariate Simple Regression with DV1 and IV1-IV6 80

Table 17: Bivariate Simple Regression w/ DV2 and IV1–IV6 81

Table 18: Bivariate Simple Regression with DV5, Effectiveness of Sales Collaboration, and IV1–IV6.. 82

Table 19: Chi-square test, DV3- Seller is Strategically Aligned with Buyer 83

Table 20: Chi-square test, DV4- Willingness to Include Seller in Strategic Initiative 83

Table 21: Multivariate Hierarchical Regression: Likelihood to Renew 84

Table 22: Multivariate Hierarchical Regression: Likelihood to Refer 85

Table 23: Multivariate Hierarchical Regression: Effectiveness of Sales Collaboration 85

Table 24:Hierarchical Regression IVs 1-6 to DV1 104

Table 25:Hierarchical Regression IVs 1-6 to DV2 106

Table 26:Hierarchical Regression IVs 1-6 to DV5 108

Table 27: Industries and Market Segments Studied 133

Table 28: Buying Company Anonymization 136

Table 29: Supplier Cleansing 137

Table 30: NVIVO Coding 138

Table 31: Collaboration vs. Likelihood to Renew, Model Summary 160

Table 32: Collaboration vs. Likelihood to Renew, ANOVA 160

Table 33: Collaboration vs. Likelihood to Renew, Coefficients 160

Table 34: Initiator vs. Likelihood to Renew, Model Summary 160

Table 35: Initiator vs. Likelihood to Renew, ANOVA 160

Table 36: Initiator vs. Likelihood to Renew, Coefficients 161

Table 37: Market Segment vs. Likelihood to Renew, Model Summary 161

Table 38: Market Segment vs. Likelihood to Renew, ANOVA 161

Table 39: Market Segment, Likelihood to Renew, Coefficients 161

Table 40: Products and Services Model Summary 162

Table 41: Products and Services vs. Likelihood to Renew, ANOVA 162

Table 42: Products and Services vs. Likelihood to Renew, Coefficients 162

Table 43: US, North/South vs. Likelihood to Renew, Model Summary 163

Table 44 US, North/South vs. Likelihood to Renew, ANOVA 163

Table 45: US, North/South vs. Likelihood of Renew, Coefficients 163

Table 46: Location (Domestic vs. International) vs. Likelihood to Renew, Model Summary 163

Table 47: Location (Domestic vs. International) vs. Likelihood to Renew, ANOVA 164

Table 48: Location (Domestic vs. International) vs. Likelihood to Renew, Coefficients.... 164

Table 49: Collaboration vs. Likelihood to be a Reference, Model Summary 164

Table 50: Collaboration vs. Likelihood to be a Reference, ANOVA.................................. 164

Table 51: Collaboration vs. Likelihood to be a Reference, Coefficients............................. 165

Table 52: Initiator vs. Likelihood to be a Reference, Model Summary.............................. 165

Table 53: Initiator vs. Likelihood to be a Reference, ANOVA 165

Table 54: Initiator vs. Likelihood to be a Reference, Coefficients 166

Table 55: Market Segment vs. Likelihood to be a Reference, Model Summary................ 166

Table 56: Market Segment vs. Likelihood to be a Reference, ANOVA.............................. 166

Table 57: Market Segment vs. Likelihood to be a Reference, Coefficients 166

Table 58: Products and Services vs. Likelihood to be a Reference, Model Summary 167

Table 59: Products and Services vs. Likelihood to be a Reference, ANOVA..................... 167

Table 60: Products and Services vs. Likelihood to be a Reference, Coefficients............... 167

Table 61: US, North/South vs. Likelihood to be a Reference, Model Summary................ 168

Table 62: US, North/South vs. Likelihood to be a Reference, ANOVA.............................. 168

Table 63: US, North/South vs. Likelihood to be a Reference, Coefficients 168

Table 64: Location (Domestic vs. International) vs. Likelihood to be a Reference, Model Summary.. 169

Table 65: Location (Domestic vs. International) vs. Likelihood to be a Reference, ANOVA 169

Table 66: Location (Domestic vs. International) vs. Likelihood to be a Reference, Coefficients 169

Table 67: Collaboration vs. Effectiveness of Sales Collaboration, Model Summary 169

Table 68: Collaboration vs. Effectiveness of Sales Collaboration, ANOVA 169

Table 69: Collaboration vs. Effectiveness of Sales Collaboration, Coefficients.................. 170

Table 70: Initiator vs. Effectiveness of Sales Collaboration, Model Summary................... 170

Table 71: Initiator vs. Effectiveness of Sales Collaboration, ANOVA................................ 170

Table 72: Initiator vs. Effectiveness of Sales Collaboration, Coefficients 171

Table 73: Market Segment vs. Effectiveness of Sales Collaboration, Model Summary..... 171

Table 74: Market Segment: Effectiveness of Sales Collaboration ANOVA........................ 171

Table 75: Market Segment vs. Effectiveness of Sales Collaboration, Coefficients 172

Table 76: Products and Services vs. Effectiveness of Sales Collaboration, Model Summary 172

Table 77: Products and Services vs. Effectiveness of Sales Collaboration, ANOVA 172

Table 78: Products and Services vs. Effectiveness of Sales Collaboration, Coefficients.... 172

Table 79: US, North/South vs. Effectiveness of Sales Collaboration, Model Summary..... 174

Table 80: US, North/South vs. Effectiveness of Sales Collaboration, ANOVA.................. 174

Table 81: US, North/South vs. Effectiveness of Sales Collaboration, Coefficients 174

Table 82: Location (Domestic vs. International) vs. Effectiveness of Sales Collaboration, ANOVA 174

Table 83: Location (Domestic vs. International) vs. Effectiveness of Sales Collaboration, Coefficients 175

Table 84: Collaboration – Strategically Aligned, Crosstab 176

Table 85: Collaboration – Strategically Aligned, Chi-Square... 176

Table 86: Collaboration – Strategically Aligned, Symmetric Measures.............................. 177

Table 87: Initiator – Strategically Aligned, Crosstab.. 177

Table 88: Initiator – Strategically Aligned, Chi-Square 178

Table 89: Initiator – Strategically Aligned, Symmetric Measures 178

Table 90: Market Segment – Strategically Aligned, Crosstab 179

Table 91: Market Segment – Strategically Aligned, Chi-Square 179

Table 92: Market Segment – Strategically Aligned, Symmetric Measures 180

Table 93: Product and Service – Strategically Aligned, Crosstab 181

Table 94: Product and Service – Strategically Aligned, Chi-Square 182

Table 95: Product and Service – Strategically Aligned, Symmetric Measures 182

Table 96: US, North/South – Strategically Aligned, Crosstab 182

Table 97: US, North/South – Strategically Aligned, Chi-Square 182

Table 98: US, North/South ─ Strategically Aligned, Symmetric Measures 183

Table 99: Location: Domestic vs. International – Strategically Aligned, Crosstab 183

Table 100: Location: Domestic vs. International – Strategically Aligned, Chi-Square 183

Table 101: Location: Domestic vs. International – Strategically Aligned, Symmetric Measures 183

Table 102: Notes 184

Table 103: Collaboration – Willingness to Include Seller, Crosstab 185

Table 104: Collaboration – Willingness to Include Seller, Chi-Square 185

Table 105: Initiator – Willingness to Include Seller, Crosstab 185

Table 106: Initiator – Willingness to Include Seller, Chi-Square 186

Table 107: Market Segment – Willingness to Include Seller, Crosstab 186

Table 108: Market Segment – Willingness to Include Seller, Chi-Square 186

Table 109: Market Segment – Willingness to Include Seller, Symmetric Measures 186

Table 110: Products and Services – Willingness to Include Seller, Crosstab 187

Table 111: Products and Services – Willingness to Include Seller, Crosstab (continued). 187

Table 112: Products and Services – Willingness to Include Seller, Crosstab (continued) . 187

Table 113: Product and Service – Willingness to Include Seller, Chi-Square 187

Table 114: Product and Service – Willingness to Include Seller, Symmetric Measures 188

Table 115: US, North/South – Willingness to Include Seller, Crosstab 188

Table 116: US North/South – Willingness to Include Seller, Chi-Square 188

Table 117: US North/South – Willingness to Include Seller, Symmetric Measures 188

Table 118: Location (Domestic vs. International) – Willingness to Include Seller, Crosstab 189

Table 119: Location (Domestic vs. International) – Willingness to Include Seller, Chi-Square 189

Table 120: Location (Domestic vs. International) – Willingness to Include Seller, Symmetric Measures 189

Table 121: Hierarchical Regression ─ Likelihood to Renew, Model Summary 190

Table 122: Hierarchical Regression ─ Likelihood to Renew, ANOVA 191

Table 123: Hierarchical Regression ─ Likelihood to Renew, Coefficients 192

Table 124: Hierarchical Regression ─ Likelihood to be a Reference, Model Summary 193

Table 125: Hierarchical Regression ─ Likelihood to be a Reference, ANOVA 194

Table 126: Hierarchical Regression ─ Likelihood to be a Reference, Coefficients 195

Table 127: Hierarchical Regression ─ Effectiveness of Sales Collaboration, Model Summary 196

Table 128: Hierarchical Regression ─ Effectiveness of Sales Collaboration, ANOVA 197

Table 129: Hierarchical Regression ─ Effectiveness of Sales Collaboration, Coefficients 198

Table 130: Contract Value vs. Strategic Alignment, Chi-Square 199

Table 131: Contract Value vs. Strategic Alignment, Crosstab 200

Table 132: Contract Value vs. Strategic Alignment, Case Summary 200

Table 133: Contract Value vs. Likelihood to Renew 200

Table 134: Contract Value vs. Likelihood to Refer 201

Table 135: Contract Value vs. Effectiveness of Sales Collaboration.................................... 201

LIST OF FIGURES

Figure 1: Average annual contract value by industry 42

Figure 2: Contract length of sales proposals 43

Figure 3: Number of provider accounts interviewed per year 44

Figure 4: Data Analysis Process 51

Figure 5: U.S. Census Map 61

Figure 6: Dummy Code 1 63

Figure 7: Dummy Code 2 64

Figure 8: Bivariate model, DV1 and DV2 72

Figure 9: Bivariate model, DV5 73

Figure 10: Bivariate model, DV3 and DV4 74

Figure 11: Multivariate Model, DV1 75

Figure 12: Multivariate Model, DV2 76

Figure 13: Multivariate Model, DV5 77

Figure 14: Regression results, DV1 and DV2 86

Figure 15: Chi square results, DV3 and DV4 87

Figure 16: Regression results, DV5 88

Figure 17: Hierarchical Multiple Regression, Likelihood to Renew 89

Figure 18: Hierarchical Multiple Regression, Likelihood to be a Reference 90

Figure 19: Hierarchical Multiple Regression, Effectiveness of Sales Collaboration 91

Figure 20: Paredo Analysis of Accounts by Industry 134

Figure 21: Paredo Annual Segment Contract Value 135

Figure 22: Renew vs. Frequency 139

Figure 23: Reference vs. Frequency 139

Figure 24: Seller is Strategically Aligned vs. Frequency 140

Figure 25: Willingness to Include Seller vs. Frequency 140

Figure 26: Effectiveness of Sales Collaboration vs. Frequency 141

Figure 27: Collaboration vs. Frequency 141

Figure 28: Initiator vs. Frequency 142

Figure 29: Market Segment vs. Frequency 142

Figure 30: Product and Service vs. Frequency 143

Figure 31: US, North/South vs. Frequency 143

Figure 32: Location: Domestic/International vs. Frequency 144

Figure 33: Collaboration vs. Renew Scatter 145

Figure 34: Initiator vs. Renew Scatter 146

Figure 35: Market Segment vs. Renew Scatter 146

Figure 36: Product and Service vs. Renew Scatter 146

Figure 37: US, North/South vs. Renew Scatter 147

Figure 38: Location: Domestic/International vs. Renew Scatter 147

Figure 39: Collaboration vs. Reference Scatter 148

Figure 40: Initiator vs. Reference Scatter 148

Figure 41: Market Segment vs. Reference Scatter 149

Figure 42: Product and Service vs. Reference Scatter 149

Figure 43: US, North/South vs. Reference Scatter 150

Figure 44: Location: Domestic/International vs. Reference Scatter 150

Figure 45: Collaboration vs. Strategically Aligned Scatter 151

Figure 46: Initiator vs. Strategically Aligned Scatter 151

Figure 47: Market Segment vs. Strategically Aligned Scatter 152

Figure 48: Product and Service vs. Strategically Aligned Scatter.. 152

Figure 49: US, North/South vs. Strategically Aligned Scatter.. 153

Figure 50: Location: Domestic/International vs. Seller is Strategically Aligned Scatter... 153

Figure 51: Collaboration vs. Willingness to Include Seller Scatter...................................... 154

Figure 52: Initiator vs. Willingness to Include Seller Scatter... 154

Figure 53: Market Segment vs. Willingness to Include Seller Scatter................................. 155

Figure 54: Product and Service vs. Willingness to Include Seller Scatter........................... 155

Figure 55: US, North/South vs. Willingness to Include Seller Scatter................................. 156

Figure 56: Location: Domestic/International vs. Willingness to Include Seller Scatter 156

Figure 57: Collaboration vs. Effectiveness of Sales Collaboration Scatter 157

Figure 58: Initiator vs. Effectiveness of Sales Collaboration Scatter................................... 157

Figure 59: Market Segment vs. Effectiveness of Sales Collaboration Scatter..................... 158

Figure 60: Product and Service vs. Effectiveness of Sales Collaboration Scatter 158

Figure 61: US North/South vs. Effectiveness of Sales Collaboration, Scatter..................... 159

Figure 62: Location: Domestic/International vs. Effectiveness of Sales Collaboration Scatter 159

ABSTRACT

Effectiveness of Interorganizational (B2B) Selling: The Influence of Collaboration, Initiator, Market Segmentation, Product

by

George Talbert

August 2018

Chair: Subhashish Samaddar

Major Academic Unit: Executive Doctorate in Business

Most B2B sales involve personal selling, which is expensive and collaborative. Problem solving and value creation, i.e., collaboration, are contemporary trends in sales and marketing. Little is known about how purchase decisions are made in large-dollar accounts, about what factors make B2B sales processes effective for both buyers and sellers, and about the roles senior managers play in the buying process. The motivation for this exploratory study is rooted in these questions. In addition, few studies have explored senior executive buyers' perceptions of suppliers. In this dissertation, I use a robust secondary data set based on assessments of 23 suppliers by 889 buyers to examine buyer satisfaction with suppliers. The data set spans 27 supplier industries and 40 product and service categories. I use grounded theory-based qualitative analysis combined with quantitative analyses to assess seller performance. Specifically, I explore how the following elements of interorganizational B2B sales affect buyer outcomes: collaboration, initiator type, customer market segment, and product or service category. I also examine the effect of geography and culture (domestic versus international, and US North versus South) on buyer outcomes. The results show that sales collaboration is a statistically significant indicator of sales performance, and that the impact of collaboration varies by industry and product type.

INDEX WORDS: Collaboration, Value Creation, Co Creation of Value, Problem Solving, Sales, Initiator Type, Procreation, B2B, Buyers, Sellers

I INTRODUCTION AND THEORETICAL BACKGROUND

The concept of value creation through interorganizational business-to-business (B2B) collaboration (S. Samaddar & S. S. Kadiyala, 2006) has been prevalent in the strategy literature (Barney, 1995) for some time. Sales collaboration has been defined as the coordination of ideas and resources of different firms and individuals to generate a wide variety of knowledge and to improve competitive advantage (Allred, Fawcett, Wallin, & Magnan, 2011; Fjeldstad, Snow, Miles, & Lettl, 2012). In this thesis, I define sales collaboration as activities or behaviors that include problem solving or value creation for customers. Value creation includes at least one of the following: an increase in productivity, an increase in efficiency, reduction of waste, or creation of a competitive advantage. In the field of sales and marketing, two forms of collaboration have been receiving increasing attention by researchers: co-creation (equal-partner collaboration) (Vargo & Lusch, 2004, 2008) and procreation (seller-initiated collaboration) (Wotruba, 1991).

The focus on relationships and value creation through collaborative selling is gaining popularity as the boundaries between the sales and marketing functions become blurred (Peterson, 2015). As noted by Johnson (2015):

> [u]nderstanding how the marketing/sales interface applies directly to the customer experience may prove illuminating for both academics and practitioners (p. 263).

Whereas personal selling has traditionally been viewed as a transactional process, the role of sales is increasingly strategic and is taking on functions traditionally associated with marketing, especially in B2B sales (Haas, Snehota, & Corsaro, 2012; Wotruba, 1991), defined as sales that occur between two business parties. The B2B sales role now often involves engaging in complex, collaborative and long-term relationships with buyers (Agrawal & Rahman, 2015;

Moeller, Ciuchita, Mahr, Odekerken-Schröder, & Fassnacht, 2013). A recent (June 2018) Google Scholar search for the terms (in quotes) "sales collaboration," and "marketing collaboration," subtracting hits for "sales and marketing collaboration" returned 1457 results from scholarly papers, books, theses and dissertations, indicating that these topics are beginning to permeate the sales and marketing literature.

In the B2B marketplace:

> more money is spent on personal selling than any other form of sales communications (Ingram, LaForge, Avila, Schwepker, & Williams, 2017, p. 8).

In fact, for some industrial companies, sales promotion is the most costly expense within the operations budget (Perreault, Cannon, & McCarthy, 2017). At sophisticated levels, personal selling involves strategy and relationship management on the part of multiple actors (Borg & Young, 2014; Tuli, Kohli, & Bharadwaj, 2007). Inadequate awareness of and orientation to the customer can result in failure of the sales proposal or of the long-term buyer–seller relationship (Tuli et al., 2007).

As both marketing and sales evolve, customer participation in innovation, as described as co-creation of customer value, increases in importance (Lusch, Vargo, & Tanniru, 2010; Thomke & Von Hippel, 2002). Interorganizational sales collaboration refers to dynamic relationships between actors (i.e., buyers and sellers) engaged in coordinated activity around mutual objectives (Gazley, 2017). Collaboration can facilitate the sharing of knowledge (Loebbecke, van Fenema, & Powell, 2016) and other resources (Tingting & Kevin, 2014); this resource integration can enable the involved parties to "expand the pie" by creating a system that functions more effectively than the individual entities alone (Jap, 1999; Vargo & Lusch, 2011).

There is increasing support for the importance of collaboration in buyer–supplier relationships and for the idea that sales collaboration can provide a source of competitive advantage (Allred et al., 2011; O'Cass & Ngo, 2012). However, there are important gaps in knowledge about factors that influence the effectiveness of interorganizational collaboration, including project context (Tingting & Kevin, 2014), market sector (M., C., & Middleton, 2015), location/culture and strategic orientation (Ahn, Kim, & Moon, 2017). Although the literature suggests that who initiates collaboration (i.e., buyer or seller) influences the buyer's experience or perceptions of collaboration (OHern & Rindfleisch, 2010), the impact of buyer versus seller initiation on buyer satisfaction with the supplier has not been widely examined. Without a clear view as to how these variables contribute to effective sales collaboration, organizational practice and policy may fail to facilitate or optimize the process (Überwimmer, Füreder, & Roitinger, 2017).

Using secondary data, I explore the effectiveness of sales collaboration in large-deal B2B sales. I consider dependent variables that reflect buyer loyalty as measures of sales effectiveness.

One perspective from which the literature has discussed supplier performance is that of salesperson attributes, such as communication style, values, and skillset (Prahinski & Fan, 2007), and supplier resources (e.g., people, machinery, and capacity) (Macdonald, Kleinaltenkamp, & Wilson, 2016). The other common approach to assessing supplier performance is to examine contextual factors such as the size of the deal (Holmes, Beitelspacher, Hochstein, & Bolander, 2017), the geographic location in which the communication or transaction took place (Kannan & Choon Tan, 2003), whether the project was a repeat bid or a new proposal (Voss, Godfrey, & Seiders, 2010), the readiness of the buyer (Lacar, 2009), the economic environment (Williams & Naumann, 2011), and the type of product or service (Davis-Sramek, Droge, Mentzer, & Myers, 2009). In line with the sales literature, I used attribution theory as the theoretical framework for this research. Additionally, I used the frameworks of strategic collaboration and game theory to inform my inquiry.

Sales data in the B2B realm are generally expensive and difficult to obtain (Zahay & Griffin, 2003). The sales transactions often take place over long time periods and in diffuse locations, and they occur across multiple industries and customer segments. In addition, it is often challenging to obtain access to senior managers and executives (Ashford & Detert, 2015). As noted by Johnston & Lewin (1996):

> [A]n understanding [of customer firms' buying behavior] may be difficult to achieve, because organizational buying behavior is often a multiphase, multiperson, multidepartmental, and multiobjective process (p. 1).

For these reasons, most studies in the B2B sales domain do not focus on buyer-level feedback. However, insights provided by buyers are critical to understanding how to develop effective strategy for working with customers. My use of secondary data (an opportunistic sample) was required to investigate these factors and it is consistent with the literature on B2B sales (Scott B Friend, Curasi, Boles, & Bellenger, 2014; Haas et al., 2012; Sarkees, 2011). The use of secondary data is an important tool for examining a phenomenon that has not been widely discussed or is not well understood (Johnson, 2015).

The combination of a review of the relevant literature, as reported in the next section, and many years of experience in high-level sales leads me to believe that introducing a new solution to a client has far more impact on supplier loyalty, and on the strength of the supplier-buyer relationship, than does responding to a client’s request for a solution. Consequently, I asked the following overarching research question:

RQ1: ***What factors influence the effectiveness of interorganizational B2B selling?***

I took an exploratory approach in search of an answer to this question. Specifically, I analyzed 13 years of interview data from 431 buyer firms located in the United States, Canada, Europe and Asia. This exploration is complemented by extant literature where useful.

The interviews were performed by a sales-auditing market-research company in the United States that conducts buyer interviews on behalf of Fortune companies who are seeking competitive insights about their clients and competitors. The buyer firms all represented major accounts with more than one buyer stakeholder and long buying cycles. The average annual proposal value was $5.0 million USD, and the average total contract value was $17.4 million USD. The dataset consisted of 1725 interviews with managers and senior executives of the buyer firms; informants were asked to provide insights and feedback on sales deals their companies engaged in with 23 supplier firms from 13 industries. This sample is unique as it focuses on the buyers in the selling process, thus answering the call for a focus on buyer-level feedback in understanding sales force performance (Scott B Friend et al., 2014).

My objective was to understand buyers' perceptions and assessments of sales teams and supplier firms in relation to the following independent variables: whether interorganizational collaboration took place; how the sales proposal and buyer–supplier collaboration was initiated—i.e., by the seller, the buyer, or equally by seller and buyer ("equal partner"); location (domestic [US] versus international); US culture (North versus South); market segment (e.g., financial services, government, manufacturing); and products or services offered (e.g., software, consulting, construction). I examined the interview informants' responses to questions related to supplier company performance. The dependent variables were defined as likelihood of the buyer to renew a contract with the supplier, and likelihood of the buyer to provide a reference for the supplier to an executive peer.

An initial exploration of the data helped me to break down the above RQ1 into the following sub research questions (SRQs):

> **SRQ1.1:** ***Does collaboration influence the effectiveness of interorganizational B2B selling?***
> **SRQ1.2:** ***Does who (buyer, seller, equal partner) initiates influence the effectiveness of interorganizational B2B selling?***
> **SRQ1.3:** ***Does market segment influence the effectiveness of interorganizational B2B selling?***
> **SRQ1.4:** ***Does product or service influence the effectiveness of interorganizational B2B selling?***
> **SRQ1.5:** ***Does location (domestic versus international) influence the effectiveness of interorganizational B2B selling?***
> **SRQ1.6:** ***Does US culture (North versus South) influence the effectiveness of interorganizational B2B selling?***

I used qualitative exploration complemented with quantitative methods to investigate the answers to my research questions. Exploration was used to understand the data and its content to validate that it would allow me to seek answers to the above questions. This process included understanding the relevance, frequency and range of data. Quantitative methods including simple regression, Chi-square, and hierarchical multiple regression were used to examine potential relationships, their strength and statistical significance.

The remainder of the paper is organized as follows. I begin with a literature review that starts with attribution theory and then focuses on the role of collaboration in B2B sales. I provide a brief overview of personal selling to provide context for the development of sales collaboration. I discuss adaptive selling, consultative selling and problem solving and describe the different types of initiation of interorganizational sales collaboration: buyer-initiated (co-creation), seller-initiated (procreation), and equal partner. Because collaboration has been discussed in the marketing literature in terms of game theory and leader–follower, an overview of those constructs is provided. I then discuss the research approach and provide details on the data set, coding, and analysis. Results of the regression analyses are presented next, and I discuss and interpret the insights obtained about collaborative selling and factors that influence its effectiveness. Finally, I detail the contributions of this work to theory and practice.

II LITERATURE REVIEW

II.1 Theory

Attribution. Attribution theory describes the process by which people attempt to describe behaviors of others. Dubinsky (1999) discussed the way in which causal attributions influence how other people's behavior is perceived (Heider, 1944). Much of the extant research on sales performance has been examined using attribution theory.

There are two categorical types of attribution: internal and external (Kelley, 1973). Internal attribution is associated with one's behaviors, characteristics and/or mood, whereas external attribution is associated with contextual factors that occur in one's environment. According to attribution theory:

> (a)ctivities and behaviors of the salesperson as she or he interacts with the buyer have more impact on that buyer's evaluation than the features of the product or service itself (Ingram et al., 2017, p. 66).

Therefore, it is imperative to analyze a salesperson's activities and behaviors, as well as buyers' perceptions of those behaviors.

It is important to consider biases that can accompany attribution-based evaluations. Attribution bias is a cognitive bias made when people attempt to make sense of their environments. The predominant attribution bias noted in the sales literature is actor bias, which maintains that an actor tends to explain their behavior based on situational factors, while an outside observer tends to explain the actor's behavior based on personal or dispositional factors (Jones & Nisbett, 1971). The next most common bias is observer bias. Observer bias minimizes attribution bias since the observer (i.e., the buyer) has nothing to gain or lose in sharing how an actor (i.e., the salesperson or supplier) has performed (particularly if their assessment is blinded).

Most of the research on sales performance uses accounts given by salespeople to describe the activities and behaviors that led to a certain sales outcome (Dixon, Spiro, & Jamil, 2001; Mayo & Mallin, 2010).

Attribution theory has also been used to examine sales managers' explanations of salesperson performance (Dubinsky, 1999). Using sales managers' evaluations appears to be more effective than using the salesperson's account of the situational and contextual factors that led to sales success or failure (Rackham, 1988). However, research suggests that:

> reliance on data from the salesperson, sales manager, and/or selling firm…can introduce attribution bias (Scott B Friend et al., 2014, p. 1124).

A third means of using attribution theory to assess salesperson performance is to include an observer other than the manager to interpret events that took place in a sales encounter; this method is viewed as more objective than the first two methods (Rackham, 1988).

Recently, the sales literature has acknowledged a fourth and optimal method of salesperson evaluation: obtaining buyer-level feedback (Scott B Friend et al., 2014). Morris, LaForge, and Allen (1994) argue that researchers must move beyond investigating sales evaluations through the eyes of the salesperson or the sales manager. The use of data obtained from the industrial buyer's perspective can help avoid attribution biases that are common to evaluations made within the selling firm (Scott B Friend et al., 2014). In this work, I focus on the buyer's perspective. I use attribution theory to examine buyer evaluations and accounts of collaborative behavior by the supplier.

Adaptive and Consultative Selling. The collaborative stages of personal selling (problem solving, co-creation and procreation) involve adaptive and consultative selling, which emphasize personalization and win-win outcomes and that include empathy as a key ingredient to developing long-term trust (Lamb, Hair, & McDaniel, 2017). Leigh and Marshall (2001) suggest that suppliers and salespeople need to adjust to a relationship-based selling orientation in B2B environments where there is a heightened focus on building effective strategic relationships and on driving success over the long haul. This long-term, customer-focused orientation builds trust over time. Research supports that there is a direct relationship between customer trust in a vendor and customer loyalty (Hong & Cho, 2011).

Industrial salespeople must interact with different actors in the selling situation, and they must adjust their communication style and the value proposition they present to the organization according to the buyer stakeholder they are interacting with (Franke & Park, 2006). Adaptive selling is defined as:

> the ability of a salesperson to alter their sales messages and behaviors during a sales presentation or as they encounter different sales situations and different customers (Ingram et al., 2017, p. 11).

Adaptive selling includes dialogue before, during and after the sale and is commonly used with personal selling approaches that involve need satisfaction, problem solving, and consultative selling (Ingram et al., 2017). These approaches require the salesperson to adapt dynamically based on the purchase situation, on the buyer’s motivations and interests, and on functional and psychological factors (Ingram et al., 2017; Lamb et al., 2017; Perreault et al., 2017).

Game Theory and Leader–Follower. Game theory is defined as:

> the formal study of decision-making where several players must make choices that potentially affect the interests of the other player (Turocy & Stengel, 2012).

and is based on the idea that an actor will act in their own best interest to maximize their return. The first general theory of games was developed by John Von Neumann and Oskar Morgenstern in 1924. According to Turocy and von Stengel (2012):

> [g]ame theory is the formal study of conflict and cooperation. Game theoretic concepts apply whenever the actions of several agents are interdependent. These agents may be individuals, groups, firms, or any combination of these. The concepts of game theory provide a language to formulate, structure, analyze, and understand strategic scenarios (p. 4).

Game theory can be used to explain leader–follower interactions (Esmaeili, Aryanezhad, & Zeephongsekul, 2009; Liang, Yang, Cook, & Zhu, 2006), in terms of who initiates the interaction. In one strategy of "non-cooperative" game theory, the leader makes the first move based on the objective of maximizing their gain through eliciting certain actions/responses from the follower (Esmaeili et al., 2009). In another non-cooperative model, players choose their strategies simultaneously, and they then take action in accordance with their selected strategies (Cachon & Netessine, 2006). In contrast, in "cooperative" game theory, players make decisions "jointly" to maximize the benefit to both sides (Jørgensen, Sigue, & Zaccour, 2001).

The leader–follower relationship describes actions of and interactions between parties (e.g., individuals or firms) based on initiation, influence and response (Gilbert & Matviuk, 2008). The leadership role is associated with some level of dominance, while the follower role is associated with a degree of deference (Kellerman, 2007). H. von Stackelberg (2010) introduced an economic model in which "leader" and "follower" companies make sequential "moves," and where the leader's strategy is based on the follower's optimal response. In Stackelberg "leader–follower games," organizational decision making is based on individual or cooperative gain sought from the interaction (S. Samaddar & S. S. Kadiyala, 2006). In the Stackelberg differential game (SDG), the system in which the game is played is characterized by state variables, such as market share, sales and inventory; decision variables (controls, such as order quantities, purchase type and cost considerations) are chosen by the players, and each player has an objective function (e.g., profit over time, information gain) that is the basis for its decision making (He, Prasad, Sethi, & Gutierrez, 2007). In the idealized leader–follower situation, both parties behave rationally and aim to improve channel efficiency (Chiang, 2010).

The leader has traditionally been defined as the entity with more power and influence, while the follower is the entity that reacts to the leader's decisions and actions (Kellerman, 2007). Studies traditionally focus on leaders rather than followers (Graen & Uhl-Bien, 1995; Malakyan, 2014). Leadership structure "emerges from the enactment of formally defined roles by organizational members" (Graen & Uhl-Bien, 1995, p. 234). This enactment of roles "reflects how work really gets completed within organizations" (Graen & Uhl-Bien, 1995, p. 234).

In the process of collaborative knowledge creation between organizations, the leader can be defined as the organization that has greater experience or prior knowledge in the domain in which knowledge creation is taking place (S. Samaddar & S. S. Kadiyala, 2006). In this paper, I define the leader as the firm (buyer or seller) that initiates the value-creating activity or the sales proposal, and the follower as the firm (buyer or seller) that receives the value-creating activity or proposal. From the perspective of the Stackelberg leadership model, I contend that the leader firm moves first, then the follower moves sequentially in a supporting role.

Grounded theory. As personal selling and buyer–seller relationships continue to evolve, examination of feedback from buyers across industries provides insights that can inform effective sales practice. Grounded theory is a qualitative research approach:

> in which the inquirer generates a general explanation (a theory) for a process, action, or interaction by analyzing the views of a large number of participants (Johnson, 2015, p. 262).

Grounded theory aims to base theory in data that are gathered and analyzed systematically (Goulding, 2002). The use of grounded theory is highly relevant to and important in understanding the dynamics of industrial sales and marketing. As discussed by Wagner, Eggert and Lindemann (2010), grounded theory is a powerful approach for industrial marketing research when the research aims to generate theory to help actors (e.g., buyers, sellers, managers) understand the situations they are involved in (e.g., sales success or failure), when the data include participant observations, interviews, or case studies, when there are large quantities of data to be analyzed, and when there are practical implications to be drawn from the research. I take a grounded theory approach to examining outcomes of interorganizational sales collaboration by analyzing statements of senior executives and managers of 431 buyer firms who were asked to assess the performance of 23 supplier firms. Using this data, I examine the strategic implications of buyer-firm assessments of suppliers.

The general method of comparative analysis (GMCA) is the primary strategy for the application of grounded theory (Johnson, 2015). A strong feature of GMCA is that it can be used to compare and contrast differences for setting boundary conditions and discovering generalizability (Glaser & Strauss, 2009). I employ comparative analysis in this paper to generalize to theory. Grounded theory recognizes the importance of the researcher’s personal perspective (Myers, 2013; Strauss & Corbin, 1994; Van de Ven, 2007; Robert K. Yin, 2014) and the effects of perspective on interpretation of the data. Johnson (2015), notes:

> The nature and quality of the results obtained from grounded theory examinations are predicated not only on [the study] participants but also on the researcher ((p. 263).

In my years of experience in sales and marketing, I have observed changes in the role of personal selling and collaboration in B2B contexts. I acknowledge that it is challenging to separate observations made in practice from the current research. However, I have attempted to separate my previous conceptions to the best of my ability. There are two primary approaches to the application and use of grounded theory, the Strauss approach and the Glaser approach. Whereas the Glaser approach allows for more liberal interpretation of findings:

> the Strauss approach is more structured and arguably more rigorous and objective in advancing new theoretical understanding" (Johnson, 2015, p. 263).

Therefore, I employ the Strauss methodology in this study.

II.2 B2B Collaboration and Sales Performance

The process of collaborative value creation differs between the B2C and B2B markets (Table 1). Consumers (B2C) and buyers (B2B) behave differently and have different needs (Lemke, Clark, & Wilson, 2011; Park & Lee, 2015). Lemke et al. (2011) found that "quality constructs" for the experience of "key customers" in the B2B arena concern the supplier's ability to understand the customer's needs and willingness to tailor the offering to those specific needs, the supplier's skill at acting proactively to understand customer objectives and to check in with the customer, and the extent to which the supplier can draw on knowledge and expertise to add value to the customer. In contrast, the key constructs in the consumer market include how helpful the company is, how well it acknowledges a customer that initiates contact, whether the company keeps its promises, whether the company makes the customer feel they are treated in a personalized way, and whether the customer feels that the company attempts to resolve customer problems (Lemke et al., 2011). Value creation poses different challenges for B2B markets compared to B2C. In general, B2B markets include fewer buyers compared to B2C markets, although there are often many more stakeholders involved in the purchasing process; in addition, B2B purchases are generally much larger or occur in greater quantities, and the purchase cycle can take months or even years (Lilien et al., 2010). B2B firms generally rely on a sales force; purchase influences are complex, and many transactions take place “out of sight” rather than in the public eye, such as on a website (Lilien et al., 2010).

Table 1: Factors that differentiate B2C and B2B

	B2C	**B2B**
Focus of product/service offering	New product	Customer value
Submitting company activity	Supplier responds to RFP	Supplier presents a novel product tailored to the customer
Tinkering and general focus	Consumption by other customers	Create a competitive advantage for partner business
Tinkering	Customer makes modifications	Response to RFI or market/Customer sensing
Players	Customers	Other businesses
New product development	Product-focused	Solution-focused
Strategic motivation	Reduce R&D costs	Gain strategic or operational business advantage
Motivators	Financial, social, technological, consumption	Financial, technical
Actors	Customers/product development	Managers, product development teams, buying centers, purchasers
Purpose	Cost reduction and effectiveness	Competitive advantage, cost reduction, productivity increase, efficiency increase
Relationship orientation	Short-term	Long-term

In this research, I focus on buyer perceptions of suppliers in the B2B market, an area that has been sparsely addressed in the literature (Judy et al., 2017). I consider different types of collaborative B2B relationships: equal partner, buyer-initiated, and seller-initiated, and I examine whether there are apparent differences in seller performance according to which party initiates the sales collaboration, the geographic region in which the buyer is located, the product or service type, and the market segment.

Collaboration in business is a means of coordinating the ideas and resources of different firms and individuals to generate a wide variety of knowledge and improve competitive advantage (Allred et al., 2011; Fjeldstad et al., 2012). Collaboration can be based on the concept of rational egoism, wherein one acts in their own interest by “looking out” for others, or on the concept of reciprocity:

> the giving of benefits to another in return for benefits received (Fuss, 2017, p. 94).

There is evidence that collaboration and cooperation are as much a human predisposition as is competition (Benkler, 2011). Interorganizational collaboration between suppliers and buyers begins in the problem-solving stage of personal selling and becomes most complex and strategic in the stages of co-creation and procreation. At the level of problem solving, the salesperson mainly focuses on solving customer problems using the tools at hand. At more sophisticated levels of sales collaboration (co-creation/buyer-initiated collaboration and procreation/seller-initiated collaboration), the salesperson provides new solutions, often through intensive interaction with the customer (Wotruba, 1991).

Interorganizational collaboration can have a positive effect on sales performance, and the two often reinforce one another (Singh & Mitchell, 2005). In sales and marketing, collaboration can be used to improve problem solving, to capitalize on specialization of labor, and to exchange value for value (Payne, Storbacka, & Frow, 2008; Sheth & Uslay, 2007). To date, the effects of who initiates collaboration—the buyer or the seller—on the outcome of B2B collaboration have not been widely reported. In interviews with account managers and senior leaders of B2B and B2C customers, Vivek, Beatty, & Morgan, (2012) found that customers are likely to be brand ambassadors when the seller firm initiates successful value creation through customer engagement. The literature on new product development suggests that initiation matters. Prahalad and Ramaswamy (2000) note that consumers are now initiating dialog with manufacturers and expecting to participate in value creation, and that consumers play an important role in creating market acceptance of products and services.

Singh & Mitchell (2005) noted that the relationship between interfirm collaboration and sales performance is complex and needs to be clarified. Factors that may influence the effectiveness of interorganizational sales collaboration include the type of product or service involved (Ng, Nudurupati, & Tasker, 2010), the market segment in which the collaboration takes place (Park & Lee, 2015), and the geographic location(s) of the participating parties (Ahn et al., 2017; Chwen, HsiuJu, & Bongsug, 2006). In the global marketplace, businesses increasingly partner across national boundaries, which requires an understanding of cultural differences and how those differences affect the approach needed for the collaboration (Dina Ribbink, 2014). Cultural factors and social norms vary among countries and can affect salesperson–buyer dyad interactions. For example, a stronger emphasis on logical, direct, precise communication in low-context environments compared to a perspective based more on “fuzzy logic” and contextual relationships in high-context environments could lead to differences in expression and interpretation (Graca, Doney, & Barry, 2017). In high-context cultures (e.g., Asian countries, Mexico), meaning is interpreted according to the social and temporal circumstances in which communication takes place. In Japan, for example, managers place more emphasis on face-to-face communication and word of mouth compared to written communication; low-context cultures (e.g., the United States, Canada) are more individualistic, and personal ties may be less important in business decisions (Money, Gilly, & Graham, 1998). Little is known about cultural differences in sales collaboration within a country. My professional practice has revealed there are variations in the way sales collaboration occurs in the northern and southern US. Few would argue this point; however, research has not examined this phenomenon.

Next, I describe the collaborative stages of personal selling.

II.3 Personal Selling

Lamb, Hair, and McDaniel (2017) define personal selling as:

> a purchase situation involving a personal, paid-for communication between two people in an attempt to influence each other (p. 270).

Personal selling focuses on the buyer–seller relationship in B2B or business-to-consumer (B2C) contexts, and on developing long-term relationships that yield win–win solutions (Halimi, Chavosh, & Choshalyc, 2011; Zimmerman & Blythe, 2013). Lamb et al. (2017) suggest that personal selling is more important for custom solutions because of its role in building relationships, which develop over time if managed effectively.

A major contribution to concepts of personal selling was made by Wotruba in 1991. Wotruba (1991) articulated five stages of personal selling (Provider, Persuader, Prospector, Problem-solver, and Procreator) and argued that a salesperson can and must progress ("evolve") sequentially through each stage. Each stage is appropriate for a different set of market conditions; a given firm may have different salespeople operating at more than one of the personal selling stages, and a salesperson may take different approaches depending on the customer. Wotruba's taxonomy provides a powerful means of conceptualizing sales processes as dynamic and evolving and of understanding strategies that are needed in different contexts. A flaw in this taxonomy is that it conceptualizes the stages as being strictly sequential. In addition, the current market has evolved to include six stages of personal selling: Provider, Persuader, Prospector, Problem-solver, Co-creator and Procreator; the last three stages are collaborative in nature (Table 2). These stages of selling are not necessarily sequential or cumulative; a salesperson operating at the co-creation or procreation level might never operate at the prospector or provider level. However, the skills needed for the collaborative selling stages, i.e., from problem solving to procreation, are cumulative.

Table 2: Evolving Concepts of the Stages of Personal Selling

Stages of Personal Selling	Wotruba (1991)	Prahalad & Ramaswamy (2000)	Vargo & Lusch (2004)
Providing	Accepts orders and consummates transactions	- Not discussed -	Goods are "operand resources" (resources on which an operation or act is performed to produce an effect)
Persuading	Attempts to convince customers to use their offering (product, good or service) over the ready-made solutions of other suppliers	- Not discussed -	- Not discussed -
Prospecting	Identifies appropriate customers based on qualifying criteria, and then seeks to persuade those customers to use their product, good or service	Attempts to persuade predetermined groups of passive buyers who have "predetermined" consumption roles; products and services created without much customer feedback	Uses analytical techniques to define marketing mix for customer that will optimize seller performance.
Problem-Solving	Engages in critical thinking to help customers define their needs; must have in-depth knowledge about their own product, good or service and about the customer; must engage in prospecting prior to problem-solving	Identifies customers' problems; redesigns products and services based on feedback from customers. Begins to cultivate trust and relationships and deeper understanding of customer.	Maintains a customer focus. Marketing function is decision making and problem solving.
Co-Creation	- Not named; discussed as Procreator -	Codevelops personalized experiences with customers; plays joint role with customer in education and co-creation of "market acceptance for products and services" (p. 80).	"Skills and knowledge are the fundamental unit of exchange" (p. 3); the value of goods is amplified by services provided; customers are co-producers of value; "service-centered view [that] is inherently customer oriented and relational" (p. 3).
Procreation	Creates a unique offering to match the buyer's needs as mutually specified, through seller coaction involving any	Engages in "active dialogue with customers to shape expectations and create buzz" (p. 80). Envisions "what is next,"	- Not discussed -

	or all aspects of the seller's total marketing mix	and engages "current and potential consumers" (p. 86).	

Problem Solving. Through the 1970s, personal selling mostly focused on providing ready-made solutions and on attempting to persuade customers to purchase the supplier's offerings. A major advance in personal selling involved the shift to solving problems for customers, ushered in by Rackham's work, which transformed the relationship between salespeople and customers from "us versus them" to "we" (Rackham, 1988, 1989). At the problem-solving stage, salespeople begin to act as consultants (Leigh & Marshall, 2001; Rackham, 1988) who operate as extensions of their customers' organizations, thus emphasizing the importance of relationships (Moncrief & Marshall, 2005). As problem solvers, salespeople work with customers to understand their needs and problems; based on the internal (supplier) and external (customer) resources available, salespeople then propose solutions from the offerings they have available (Wotruba, 1991) that lead to customer value. The SPIN-selling model introduced by Rackham (1988) revolutionized sales by developing strategic selling practices for large accounts and led to insights about adaptive selling. The SPIN model is based on (S)ituation, (P)roblem, (I)mplication and (N)eed pay-off questions and provides a roadmap for salespeople to drive strategic selling within an account.

Buyer-Initiated. The theoretical construct of co-creation was developed by Prahalad and Ramaswamy (2000) in their seminal article "*Co-opting Customer Competence*" in the Harvard Business Review. The concept of co-creation is based on evolution of the customer from passive audience to active co-creator of value and relationship and, in many cases, to becoming the initiator of interaction with the seller. Prahalad and Ramaswamy (2000) maintain that the customer is the new source of competence in the B2B marketplace. Their DART model proposes that co-creation is facilitated by and based on (D)ialogue between the buyer and seller, (A)ccess to key information including intellectual property of the products, (R)isk assessment to determine the risks and responsibilities of each party, and (T)ransparency to reduce information asymmetry, which traditionally would be exploited by the selling organization (Prahalad & Ramaswamy, 2004).

Although the concept of co-creation has largely been developed in the consumer literature (i.e., the B2C market), it has begun to permeate the B2B space, with more papers being published in this area (Table 3). Collaboration is integral to B2B contexts where tailored solutions tend to be required (Lemke et al., 2011). I propose that co-creation is a form of buyer-initiated collaboration, in which the buyer engages a qualified supplier to develop a solution tailored to the buyer's needs. This contrasts with seller-initiated collaboration, in which the seller proactively proposes a solution to the customer. As an example of buyer-initiated collaboration, when describing how a shipping courier supplier (the seller) approached their business relationship, a Senior Vice President for a global sourcing company (the buyer) stated:

> They jump on things quickly when we bring them up, but it is usually up to us to bring it up ("Buying Co. #274").

And when asked whether their supplier banking company had been proactive, the Senior Vice President of a buyer company responded:

> Proactive? Not necessarily. I have been engaged with them quite extensively and we have been working on the things we need to work on…We came to them with quite a list and to be fair, they have made some very good suggestions ("Buying Co. #362").

Researchers Stephen L. Vargo and Robert F. Lusch (2004) introduced service-dominant logic, which argued that marketing has shifted from focusing primarily on the exchange of goods to focusing on the provision of services (skills, knowledge, experiences, processes) or goods integrated with services. Service-dominant logic is based on the concept that customers are co-producers of services and co-creators of value. O'Hern and Rindfleisch (2010) distinguish between types of co-creation based on who leads the activity (the customer or the firm) and on whether the activity is a fixed or an open "contribution." In the industrial sales context, some requirements are fixed by the vendor's proposal—i.e., the range of contributions that the supplier can make is strictly specified; in situations that are not bound by a request for proposal, suppliers have more freedom to make non-solicited suggestions (open contributions).

Table 3: Co-creation Literature. Major Contributions in the B2B Space

Author(s)	Article Title
Vargo & Lusch (2008)	Service-dominant logic: continuing the evolution
Vargo & Lusch (2011)	It's all B2B...and beyond: Toward a systems perspective of the market
T Roser & R DeFillippi, A Samson (2013)	Managing your co-creation mix: co-creation ventures in distinctive contexts
M Kohtamäki & R Rajala (2016)	Theory and practice of value co-creation in B2B systems
ER Devasirvatham (2012)	Modelling co-creation and its consequences: one step closer to customer-centric marketing
KC Hohmeier, SLK McDonough & J Wang (2017)	Co-creation of market expansion in point-of-care testing in the United States: Industry leadership perspectives on the community pharmacy segment
JS Chen, D Kerr, CY Chou & C Ang (2017)	Business co-creation for service innovation in the hospitality and tourism industry
R Ligthart, J Porokuokka & K Keränen (2016)	Using digital co-creation for innovation development
E Jouny-Rivier & PV Ngobo (2016)	Drivers of companies' willingness to co-create B2B services
T Pukkala (2015)	Managing customer co-creation: Empirical evidence from Finnish high-tech SMEs
O Rexfelt, L Almefelt, D Zackrisson, T Hallman, J Malqvist & M Karlsson (2011)	A proposal for a structured approach for cross-company teamwork: a case study of involving the customer in service innovation
AR Firend (2016)	The impact of B2B value co-creation on consumer's purchasing intentions in SE-Asia
T Sattayaraksa, FW Swierczek, & S Boon-itt (2012)	Co-creation with international customers in the new product development process: A case study of a manufacturer in Thailand
T Hughes & M Vafeas (2014)	Agencies and clients: Co-creation in a key B2B relationship
AR Firend & M Langroudi (2016)	Co-creation and consumer's purchasing intentions, any value in B2B activities?

E Riviera & J Jounyb (2013)	Service co-creation between businesses and non-profit actors
E Stevens & E Jouny-Rivier (2017)	Customer's learning processes during co-creation experience
N Akolk, Y Huang & V Perrone (2016)	A holistic study of the factors influencing the co-creation process in the B2B market from two perspectives
LK Grafmüller & H Habicht (2017)	Current challenges for mass customization on B2B markets
T Roser, R DeFillippi & A Samson (2012)	Managing your co-creation mix
P Laplaca (2016)	Addressing the big picture: Macro-environment changes and B2B firms
I Fiegenbaum & A Grun (2014)	Challenges of customer innovation in B2B environment: cases from IT industry
P Ringeisen & R Goecke (2016)	Flinkster: The carsharing platform of Deutsche Bahn AG
K Keränen & R Ligthart (2017)	Digital open innovation and co-creation in service organizations: Enablers and barriers
E Krolikowska (2014)	Can attachment theory explain why social bonds develop in business relationships? An exploratory study of professional service providers
N Weber (2017)	Matching the business model with the unique customer journey: a case study of a high-tech Dutch EMS provider
M Komulainen (2016)	New business models and digitalization in micro firms and SMES
CA Lin & H Chen (2018)	Deconstructing B2B, co-creation and service deployment in East Asia: evidence from Taiwan and PRC manufacturers
T Hughes, M Vafeas & T Hilton (2018)	Resource integration for co-creation between marketing agencies and clients

Seller-Initiated. Wotruba (1991) defined procreation as the final stage in the evolution of personal selling, where:

> [s]elling is defining buyers' problems or needs and the solutions to those problems or needs through active buyer–seller collaboration, and then creating a market offering uniquely tailored to match those specific needs of each individual customer (p. 4).

In this stage, the supplier creates a specific marketing mix for the customer. Wotruba (1991) argued that procreation is the "ultimate in need satisfaction" because the:

> customer requirements become evident through co-action with the seller. Buyer and seller work in concert to meticulously identify customer needs which become the compelling force behind the design of the seller's custom-tailored offerings (p. 8).

This is an excellent definition of co-creation or equal-partner collaboration, but not of procreation, which is a seller-initiated process in which the seller proactively provides insights to the customer.

I propose that procreation is a form of seller-initiated collaboration (Table 4). Procreation is based on the seller's superb knowledge of the industry, the customer, and the resources of the customer company, coupled with the seller firm's product/service offerings, capabilities and other resources. For example, the Vice President of Member Relations & Marketing of a buyer company had this to say about a procreative supplier banking company:

> They were the ones that suggested us to go from 'one platform' to the 'current' platform…And that change gave us way more control of our debit card program and reports. They also gave us ample notice on the BIN transfer requirement. So, we knew last year what would be required of us this year. And that let us plan well and make decisions on that way ahead of time ("Buying Co. #370").

In the procreative process, the salesperson creates a market offering tailor-made to the needs of the buyer, even when the seller's firm may not have all the required expertise or processes in place to meet those needs. Whereas in buyer-initiated collaboration, the customer engages the seller to solicit a solution, a key characteristic of procreation is that the seller takes a proactive approach in initiating the proposal or solution to the customer. If done effectively, procreation may drive a higher level of customer value than co-creation. However, both approaches represent interorganizational collaboration.

Table 4: Characteristics of procreation versus co-creation

	Seller-initiated Collaboration (Procreation)	**Buyer-initiated Collaboration (Co-creation)**
Initiated by	Salesperson	Buyer firm
Conceptualized	Supplier firm	Buyer firm
Developed	Sales team and Buyer	Buyer firm and Sales team
Buy-in (Sought after)	Buyer	Seller
Stimulus of proposal	Perceived solution	Business imperative
Antecedence	Anticipate customer needs	Driven by business need
Resources	Firm, buyer, industry	Buyer and Supplier

Resource Allocation	Resource secure	Challenged to secure
Readiness	Proactive	Reactive
Knowledge	Consultative	Cooperative
Salesperson responsibility	Market sensing	Responsive
Time orientation	Future	Current to future
Customer value proposition	Partner	Provider to cooperator
Sales orientation	Hunter	Hunter and Gatherer

Equal Partner. In interorganizational collaboration, both parties may act as leaders and followers; interdependence can occur as buyers and sellers each bring needed resources to the exchange. As understood in systems theory, the leader and follower roles are interdependent (Gilbert & Matviuk, 2008; Hollander, Park, & Elman, 2008) and:

> the leadership role can rotate between partners (Graen & Uhl-Bien, 1995, p. 233).

Roles and functions of leadership can be exchanged, depending on the situation or organizational setting, to optimize the effectiveness of a collaborative endeavor and to foster mutual respect and empowerment (Malakyan, 2014). In cooperative contexts:

> [a]dequate allocation and sharing of resources is important (S. Samaddar & S. S. Kadiyala, 2006).

The literature on co-creation is not consistent in how it describes the initiation of sales collaboration, with some papers referring to buyer-initiated processes (Prahalad & Ramaswamy, 2004) and some referring to equal-partner situations (Prahalad & Ramaswamy, 2000).

II.4 Location

Research has found that location matters in organizational behavior, business development, and marketing (Ahn et al., 2017; S. Samaddar & S. Kadiyala, 2006). The extant literature on this topic has examined this phenomenon through the lens of international culture and has found that culture plays a significant role (Kumar, Rajan, Gupta, & Dalla Pozza, 2017;

Money et al., 1998); however, the literature is silent regarding the impact of domestic culture (US North versus South) on sales. Marketers understand the overall value of understanding and speaking to culture in marketing, as reflected in the PEST (Political–Economic–Social–Technological) paradigm (Lancaster & Jobber, 2009). However, we are lacking a broad perspective on whether differences in culture between North and South affect sales outcomes. Based on published findings that international differences in culture affect business relationships, I sought to further use this convenience sample to examine whether differences in US location/culture matter in large B2B sales with Fortune companies. I answered the call made by Tukey (1980), Eisenhardt (1991), and Miles and Huberman (1994) to examine a contemporary issue where little is known by asking the question, "Does domestic culture (North vs. South) make a difference in large B2B sales?"

II.5 Products and Customer Market Segments

Dibb and Simkin (2010) discuss the importance of understanding customer market segments in managing customer needs and enhancing resource allocation and competitive advantage. Perreault et al. (2017) discuss the marketability of products and services and suggest that highly customizable products are more conducive to yielding a return on marketing resources than are products that are perceived as commodities. According to Eggert (2002):

> Despite a growing body of research [on customer markets], it is still unclear how value interacts with marketing constructs (p. 107).

Johnston et al. (1981) state that the type of product or service matters in the purchase situation, and they note that a buyer's subjective perceptions of:

> the purchase novelty, complexity, and especially the importance…were the most powerful determinants of vertical and lateral involvement, extensivity, and connectedness (p. 154).

Johnston et al. (1981) further state that buying center communications, structure and behaviors may differ according to the purchase class, and they note that purchases of capital equipment tend to involve larger numbers of buyers compared to purchases of services. Using this opportunistic dataset, I examined how customer evaluations of suppliers varied according to customer segment and product or service category.

II.6 Buyer Loyalty

Because collaboration is often a long-term process, supplier firms that are engaged in interorganizational collaboration with buyers are more likely to be attuned to customers' ongoing (and post-purchase) needs. Bennett, Härtel, & McColl-Kennedy (2005) examined brand loyalty, and psychological factors behind loyalty, in the B2B sector; they found that customers who have high levels of experience, and thus familiarity, with suppliers are more likely to continue to make purchases from those suppliers unless a disruptive event occurs, such as a new entrant with a competitive price or promotion. Their research suggests that post-purchase sales service and involvement with customers is critical to customer retention and loyalty (Bennett et al., 2005). The establishment of unique collaborative relationships can lead to high switching costs for the customer due to their intensive investment in the relationship, and this investment can help reduce a customer's propensity to change suppliers (Wathne, Biong, & Heide, 2001). These "idiosyncratic investments" by buyers are not readily transferrable to different suppliers; discarding the relationship may represent a lost investment, particularly if the collaboration continues to provide value to the customer (Chowdhury, 2012). Consequently, one way to capture the effectiveness of a B2B buyer-seller collaboration would be to assess whether the collaboration causes the buyer to be more likely to continue to make purchases from the involved supplier. This question led to my first dependent variable, likelihood of the buyer to renew with the supplier without issuing a request for proposal, described in the following section on the research model.

Creating and maintaining the flow of value to the customer is an essential component of buyer loyalty to suppliers, and to positive word-of-mouth behavior – the:

> likelihood that a customer will refer a seller positively to another potential customer" (Palmatier, Dant, Grewal, & Evans, 2006, p. 140).

Trust and commitment, which include "collaborative communication" and information sharing, are seen as key drivers for developing and maintaining long-term relationships between suppliers and buyers, which in turn can help suppliers to maintain a strong competitive advantage (Chowdhury, 2012). This literature grounding led me to develop the second dependent variable, likelihood of the buyer to provide a reference to their peers within another company, described in the research model below.

Strategic alignment between buyer and seller has a significant influence on long-term value-creation. Strategic partnerships enable individual firms to fill gaps in their capabilities and resources (Srivastava, Iyer, & Rawwas, 2017). Benton and Maloni (2005) discuss the power that suppliers have in the strategic relationship when there is strong customer satisfaction. Buyers have a strong influence on the strategic relationship. Gosselin & Bauwen (2006) discuss strategic account management and value creation, and how requirements and inputs provided by customers become part of a customer-focused strategy. Breault and Rashed (2013) note that understanding the customer's customer is a critical part of creating strategic alignment. The combination of the supplier's strategic-level sales approach with the buyer's "strategic commodity orientation" can enable powerful alignment in B2B relationships that maximizes the value created for both parties (Autry, Williams, & Moncrief, 2013). Therefore, to capture the effectiveness of a B2B buyer–seller collaboration, one could assess whether at the end of the collaboration process the buyer is more likely to consider the seller to be strategically aligned with his or her company. This observation helped me to formulate my third dependent variable, whether the buyer considers the seller to be strategically aligned with their interests.

When a buyer includes a seller in the request for proposal process in B2B sales, it is a key indication that the buyer firm is interested in the seller's solution (Scott B. Friend, Johnson, Luthans, & Sohi, 2016). The cases in my dataset were based on the repurchase intentions of the buyer, so if the buyer trusted that the seller could continue to add value, they were willing to include them in a request for proposal. This grounding led to my fourth dependent variable, the willingness of the buyer to include the seller in a near-term request for proposal (RFP), which will be discussed in detail in the next section.

III RESEARCH MODEL

This section presents all potential dependent variables and independent variables that could support the research questions posed in the Introduction.

III.1 Dependent Variables (DVs)

As discussed above, the literature helped me identify six important independent variables that reflect the effectiveness of a B2B collaborative selling process and that could be affected by elements of interorganizational collaboration. First, the literature showed that the likelihood of a buyer to make purchases from the same supplier is an indication of the effectiveness of a B2B sales collaboration. My early exploration of the data revealed that some buyers were willing to continue working with their suppliers without issuing a request for proposal. This behavior revealed in my data set reinforced the findings in the literature and took them a step further in that some buyers chose not to seek information from other competitor suppliers. Together, these two components—"likelihood to purchase with the same supplier" and "without sending out a request for proposal"—created a stronger dependent variable for my research, which I called:

> *Likelihood of the buyer to renew with the supplier without issuing a request for proposal.*

Second, with the help of evidence in the literature regarding "likelihood of a buyer to refer the seller to another potential buyer," I decided on a second dependent variable and framed it as:

> *Likelihood of the buyer to provide a reference to their peers within another company.*

My next two dependent variables were generated in a similar fashion. The third was a direct consequence of the discussion of how a B2B selling experience can lead a buyer to consider the seller to be strategically aligned:

Seller is strategically aligned with the buyer.

The fourth dependent variable was derived from the discussion of buyers' perceptions of satisfaction with a recent collaborative sell that led them to include the seller in future RFPs:

Willingness of the buyer to include the seller in a near-term request for proposal (RFP).

In an effort to quantify the effectiveness of sales collaboration, the fifth dependent variable was created:

Effectiveness of interorganizational sales collaboration.

As shown later, further exploration of the data showed that the data would afford DV1 and DV2 as continuous variables, DV3 and DV4 as categorical variables with two values each, and DV5 as a continuous variable.

In summary, I proceeded with a total of five dependent variables:

1) Likelihood of the buyer to renew with the supplier without issuing a request for proposal

2) Likelihood of the buyer to provide a reference to their peers within another company

3) (Buyer considers) seller is strategically aligned with the buyer

4) Willingness of the buyer to include the seller in a near-term request for proposal (RFP)

5) Effectiveness of interorganizational sales collaboration.

III.2 Independent Variables (IVs)

Based on the prior literature discussion, it became clear that the existence, or lack thereof, of a collaborative relationship between buyer and seller would influence the effectiveness of the B2B sales relationship. This led to the conceptualization of my first independent variable, which I defined as *collaboration* to capture whether collaboration did or did not occur during the B2B selling (buying) process. I considered sales collaboration to have occurred if the proposal involved problem solving or value creation, with value creation defined as increasing productivity, increasing efficiency, reducing waste, or creating a competitive advantage.

The second factor that emerged from the literature and an early exploration of the data was the role of *initiator*, defined as who initiates the B2B selling (buying) relationship. This independent variable can take three values: buyer, seller or equal partner. I report in the data section that there were some cases in which it was unclear whether any of these three values could be assigned with certainty; those cases were dropped from the analysis.

Similarly, four more independent variables were identified: market segment, products and services, geographic location (domestic versus international), and US culture (North versus South). The possible values for each of these independent variables were determined from the data. This exploratory process involved sense-making and bundling of the values, guided in part by the literature and in part by my experience. More details on this process are provided in the data section. In summary, the six independent variables are: 1) collaboration, 2) initiator type, 3) market segment, 4) product and service type, 5) geographic location, and 6) US culture.

IV METHODOLOGICAL APPROACH

I used a dual-methods qualitative and quantitative approach to examine how interorganizational collaboration is perceived by buyers and reflected in buyer loyalty. I used exploratory research and grounded theory to examine the phenomenon iteratively and according to my experience in high-level B2B sales. I then performed qualitative and quantitative analyses on secondary data consisting of interview and account value data from 889 managers and senior executives of buyer companies discussing 431 sales proposals.

IV.1 Exploration of Secondary Case Data

Exploratory study is a form of qualitative research that aims to discover and develop ideas and insights from which hypotheses can be developed (Kothari, 2004). Robert Tukey (1962), a pioneer in exploratory research and statistics, describes situations in which an exploratory approach is warranted:

> We need to face up to the need for a free use of *ad hoc and informal procedures in seeking indications*…When our purpose is to ask the data what it suggests or indicates it would be foolish to be bound by… any rules or principles beyond those shown by empirical experience to be helpful in such situations (p. 62).

And further:

> No catalog of techniques can convey a willingness to look for what can be seen, whether or not anticipated. Yet this is at the heart of exploratory data analysis… a recognition that the picture-examining eye is the best finder we have of the wholly unanticipated (Tukey, 1980, p. 24).

Exploratory researchers engage in an iterative process of data interpretation and hypothesis or theory development (Eisenhardt, 1989). The researcher begins with one or more key questions; those questions and consequent dependent and independent variables often evolve through the process of qualitative data analysis (Graue, 2015). This flexibility is important and enables an inductive process by which theory is generated from data (Mayer, 2015). I started with the same approach, which was followed by regression modeling to check the significance of the relationships explored.

Qualitative research, including exploratory and case study, is highly applicable to the sales domain. There is a need "to expound upon qualitative methods in sales research," because sales as a professional discipline is expanding and evolving at an exponential rate (Johnson, 2015, p. 262); in many ways, the B2B selling relationship is also evolving, and to compete, suppliers are answering its call for progress (Fetherstonhaugh & Worldwide, 2016). Cicala et al. (2012) note that there is a lack of research on what makes sales presentations effective, and they discuss the important role of exploratory research in laying a foundation for developing theory in sales research. Theory used to predict sales-related phenomena may no longer be relevant or may need substantial reworking and development to reflect current conditions (Johnson, 2015). Johnson (2015) notes a particular need for research and theory development around customer interactions and sales innovation with large industrial buyers.

In corporate practice, both objective and subjective measures are used to assess sales performance (Avila, Fern, & Mann, 1988). Here, I analyzed secondary data collected by a sales auditing company that examines buyer evaluations of suppliers. The data consist of semi-structured interviews that sought buyer feedback on satisfaction with suppliers. I coded the interview responses and performed quantitative analyses to investigate buyer- versus supplier-initiated collaboration with exploratory methods.

Case study is:

> Empirical inquiry that investigates a contemporary phenomenon (the 'case') in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident (Robert K. Yin, 2014, p. 13).

Goals of case study research include theory testing and development, and generalization of analysis to theory ("analytical generalization") (Robert K Yin, 1994). Case studies are useful for examining contemporary events when behaviors cannot be manipulated, or when there is limited knowledge regarding a phenomenon (Robert K. Yin, 2014). The case study approach can provide contextual feedback to address questions about such phenomena. Samaddar, Nargundkar, and Daley (2006) note that the use of both primary and secondary data in case study-based grounded theory development can help create a more robust qualitative research process and that:

> Analysis of evidence from a secondary source allows researchers to use existing data that was collected for a prior study to pursue a concept that was not the primary intent of the original study (p. 748).

Samaddar et al. (2006) further note that secondary data is less likely than primary data to be biased toward the research hypotheses, since it was not collected for the purpose of examining those hypotheses or proposals. Eisenhardt (1991) argues the importance of blending qualitative and quantitative methods while incorporating a broad literature review to enhance the validity and rigor of case research.

Definition of the unit of analysis, i.e., the case, is central to case study design and is based on how the research questions have been articulated (Robert K. Yin, 2014). Case study research can take the form of single- or multiple-case studies. Eisenhardt (1989) maintains that the use of multiple cases provides a powerful means of creating theory by allowing replication and extension among individual cases. Most researchers would likely agree that the choice of a single- versus a multiple-case approach depends on the questions being asked and the contexts in which those questions are examined. Sales researchers should seek a broad base of samples/sources to help generalize their theoretical findings (Johnson, 2015). To minimize recruitment and format biases, I used disparate industries and analyzed 431 case reports to reach theoretical saturation (Johnson, 2015).

V METHODS

I used a dual-methods approach to find answers to my research questions:

RQ1: ***What factors influence the effectiveness of interorganizational B2B selling?***

SRQ1.1: ***Does collaboration influence the effectiveness of interorganizational B2B selling?***
SRQ1.2: ***Does who (buyer, seller, equal partner) initiates influence the effectiveness of interorganizational B2B selling?***
SRQ1.3: ***Does market segment influence the effectiveness of interorganizational B2B selling?***
SRQ1.4: ***Does product or service influence the effectiveness of interorganizational B2B selling?***
SRQ1.5: ***Does location (domestic versus international) influence the effectiveness of interorganizational B2B selling?***
SRQ1.6: ***Does US culture (North versus South) influence the effectiveness of interorganizational B2B selling?***

The dual methods consisted of an early exploration of the data to augment findings presented in the literature and to develop potential dependent and independent variables, which constituted the model used to address the research questions. Then, I conducted a deeper dive into the data exploration, which is described in the following subsections (Study Design, Case Information, Data Preparation and Cleansing).

This exploration triggered the need to code the data in preparation for quantitative analysis. Creating the codes required continuous exploration of the data to group it meaningfully and appropriately for the analysis. For example, the market segment information came in as raw data and thus was highly granulated. Exploratory analysis first led to an understanding of the spread of the data; I then constructively bundled the data to maintain its value for the research questions while enabling quantitative analysis using analytic software. In this example, 27 market segments were bundled into six using insights obtained by exploring the segmentation data. This process was carried out for all variables as necessary and is detailed in the subsection Data Coding and New Insights.

V.1 Study Design

The study design analyzed 13 years of interview data from 431 buyer firms from the US and foreign countries. Each buyer firm, and the interviews associated with it, represents one case. These secondary data were derived from the sales-auditing market-research company AskForensics, located in the United States, that conducts buyer interviews for Fortune companies (Table 5). The data set included interviews with managers and senior executives of the buyer firms; informants (buyers) were asked to provide insights and feedback on sales deals their companies engaged in with 23 supplier firms from 13 industries based on their previous experience with the seller. My analysis sought to understand buyers' perceptions and ratings of sales teams and supplier firms in relation to the effectiveness of interorganizational B2B sales collaboration.

Table 5: Description of Study

Design Element	Description
Research Method	Dual-method (quantitative and qualitative) analysis of secondary data
Data Coverage (Time)	13 Years
Informant Positions	Directors, Vice Presidents, C-Suite Executives and Managers
Unit of Analysis	Case / Company
Data Source	Sales Auditing Company AskForensics
Population	Fortune Corporations (U.S., International) and School Boards
Sample	• 431 Cases (Buyer firms) • 889 Informants • 1725 Interviews

V.2 Data Acquisition

I requested the sales audit data from AskForensics. I initiated this request with the goal of assessing B2B sales collaboration from the buyer's perspective in large companies dealing with large-dollar sales deals. AskForensics agreed to provide me with the dataset under the stipulation that I sign their confidentiality agreement. In the agreement, AskForensics requires review of the dissertation prior to publishing to ensure that their proprietary information is protected and properly represented and that the anonymity of all stakeholders (client, buyer company employees, and employees of AskForensics) is maintained.

A confidentiality agreement was provided on April 4, 2017 and executed on April 5, 2017. To protect AskForensics and their interests, the CEO will be provided with a copy of the dissertation for review along with the dissertation committee, to confirm that anonymity has been maintained and proprietary information has been protected.

The dataset was provided on a flash drive on April 7, 2017. The flash drive is stored under lock and key. A new file was created on my computer, which is password protected with an external security push feature using the 'Duo' software as a secondary security verification measure. I used the flash drive to upload the data file, which was contained in an Excel spreadsheet. This spreadsheet contained the following demographic data: names and locations of supplier and customer companies, names of the informants, company addresses, and dollar values associated with each sales proposal. AskForensics provided verbatim, transcribed responses to the interviews. In total, there were 1725 interviews provided by 889 informants, which equated to approximately two interviews per case and a minimum of one hour of interview time per case.

V.3 Case Boundary

Recall, that Glaser and Strauss (2009) discuss the importance of setting case boundary conditions. The case data used for this analysis was bound by the major account and large-dollar deal space (Figure 1). The major account is defined as an account that involves more than one buyer stakeholder and long buying cycles (Figure 2), that requires multiple sales calls, and in which the deal is managed by the buying center, characteristics that are important elements of industrial B2B sales interactions (Hutt, Johnston, & Ronchetto Jr, 1985). The data (case participants) consisted of buyer feedback from 889 executives of 431 client companies, with one sales proposal per company and a minimum of two executives interviewed per company; the 431 client companies were engaged in sales deals with 23 different Fortune 1000 supplier firms representing 13 industries (Figure 1), from 2005 through 2017.

The data were originally commissioned by the 23 supplier firms who sought competitive insights into client experience with their firms. The client (buyer) companies were tall (highly matrixed) companies with average deal values of $5 million USD annually. All proposals were qualified; the supplier companies were either invited by the buyer firms to make a sales presentation or they met the requisite criteria for purchase as evidenced by their status as RFP finalists. The requirement that sales firms be qualified ensured that buyer companies were actively looking to make a purchase. This sample is unique as it focuses on the buyers in the selling process.

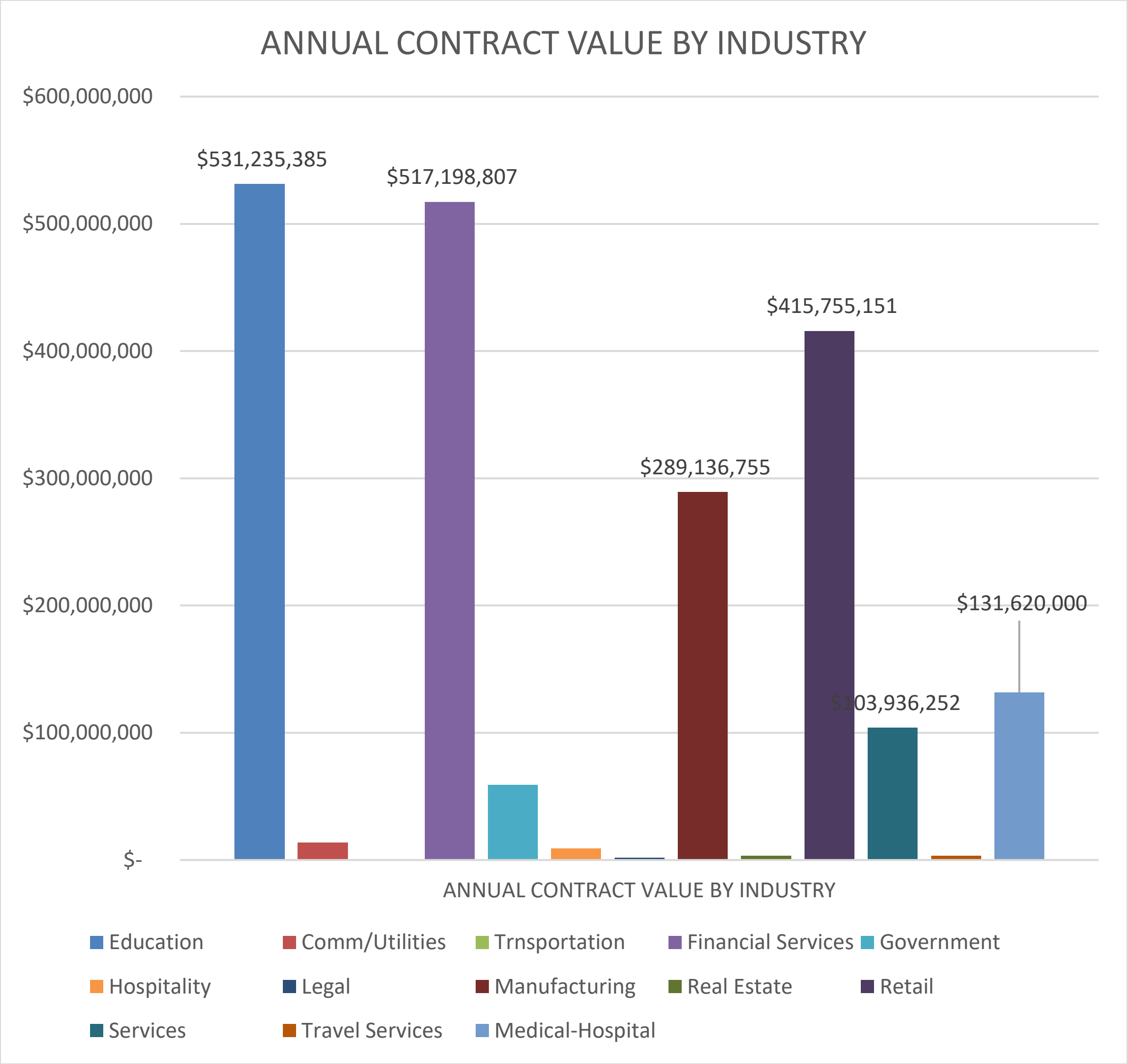


Figure 1: Average annual contract value by industry

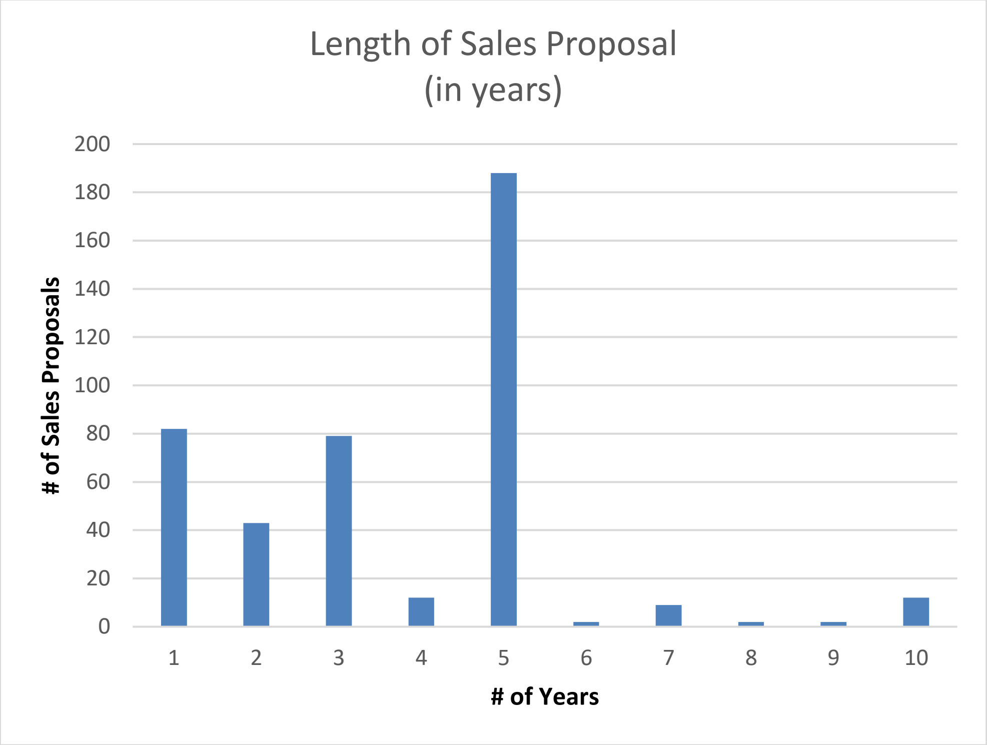


Figure 2: Contract length of sales proposals

V.4 Case Data (Interviews)

The study data include 1725 in-depth semi-structured interviews, consistent with case study-based research in the business domain (Myers, 2013). Phone interviews with executives from the buyer companies were conducted between 2005 and 2017 (Figure 3) by two senior researchers at AskForensics. Multiple informants (a minimum of two) were interviewed for each case. The use of multiple informants increases data validity and allows for interview triangulation (Tucker, Powell, & Dale Meyer, 1995). Each researcher had a Master of Business Administration degree and specialized training in conducting qualitative research with senior leaders of Fortune 1000 companies. As is common in qualitative research, some informants were interviewed more than once to obtain greater clarity or to confirm statements made in previous interviews. All interviews were recorded and were subsequently transcribed by a data transcription firm. The interviews lasted between 20 and 45 minutes each, which yielded more than 1 hour per case and more than 25,860 minutes of verbatim responses recorded. Table 6 provides details about the source and collection of the data.

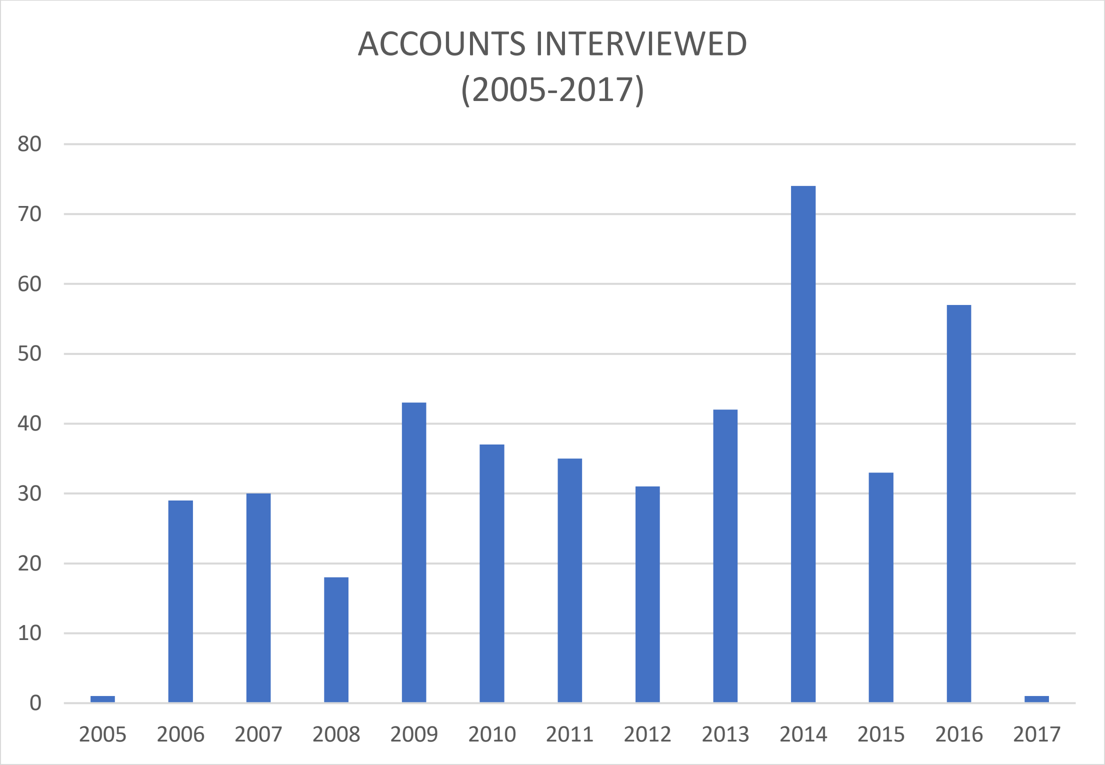


Figure 3: Number of provider accounts interviewed per year

Table 6: Secondary Data Collection Process

Data provided by	Sales auditing company AskForensics
Data format	Microsoft Excel file
Data content	Transcribed interview responses of 889 informants from 431 buyer firms who were asked to discuss the performance of 23 supplier firms
Data source	Data were originally commissioned by 23 supplier firms seeking insights into the successes and failures of their sales proposals.
Criteria for inclusion	1. Buyer firms were Fortune-1000 companies 2. Buyer firms were highly matrixed, with multiple buyer stakeholders 3. Supplier firms were either invited by buyer firm to provide a sales proposal, or they were RFP finalists
Data collection process by sales auditing company	1. AskForensics performed research for 23 supplier firms that met the criteria above between 2005 and 2017. Supplier firms sought insights into the features, attributes and triggers of the successes and failures of sales proposals, including competitive insights. 2. Supplier firms provided AskForensics with internal documents containing information on 431 successful and unsuccessful sales proposals. This information included: buyer firm names and contact information; contract date, value, scope, and duration. 3. AskForensics contacted buyer firms to triangulate deal data provided by supplier companies. AskForensics then scheduled interviews with managers and executives of buyer companies. Most cases included at least two informants. 4. AskForensics classified the proposals based on deal type (new, rebuy or modified rebuy) (Ingram et al., 2017).
Interview process	Two AskForensics researchers conducted initial interviews with up to three managers and executives of each buyer firm. Interviews were conducted by phone. Each researcher had an MBA and was trained in conducting qualitative research with senior leaders of Fortune 1000 companies. Initial interviews lasted 30 to 45 minutes. The interviews were conversation-based and sought answers to 33 questions.
Snowballing	During the interviews with buyer firm executives, AskForensics researchers sought information about key contacts within the buyer company who were involved in the decision on supplier proposal selection. The researchers then contacted these additional informants and performed additional interviews, which are included in the 1725 total interviews.
Follow-up	Informants from buyer firms were interviewed again as necessary to provide clarification or additional information to their original responses.
Data preparation	Interview responses were transcribed and provided in Excel format with one tab for each of the 33 interview questions. Questions were assigned to one of the following categories: Account Team Effectiveness, Communications Tools, Competitive Insights – Product and Service, Competitor Insight, Needs & Expectations, Other Comments, Outcome, Recommendations, Status Rating/NPS, Strategic Planning, Value, Willingness to be a Reference

The objective of the interviews was to obtain information on customers' perceptions of the effectiveness of the supplier account team, how well the supplier team met the needs and expectations of the buyer firm, strengths and weaknesses of competitor supplier companies, effectiveness of supplier company communications, how the supplier company provides value to the customer, and overall satisfaction of the customer with the supplier firm. Based on customers' categorical responses, intense interview probing techniques were instituted to elicit additional thoughts and feedback on the attributes, characteristics and contextual factors of their interactions with the sales team and the supplier. I was interested in customer feedback on five questions that related to whether the supplier provided the customer with proactive solutions, whether the customer would be likely to recommend the supplier to senior executive peers at other organizations, and the likelihood of the customer to renew the contracted services with the supplier (Table 7). Additional demographic and descriptive data associated with each company and proposal included deal country of origin, size of the organization, industry, and its market segment (Figure 20 and Figure 21 in Appendix).

Table 7: Interview questions explored & deemed useful for this study.

Question 7: *Provide examples of how the salesperson proactively developed and proposed solutions.*

Question 17: *Do you have any strategic initiatives and plan that will require issuing new RFP in a similar area?*

Question 18: *Will the supplier be invited to participate in the initiatives?*

Question 21: *Do you have the ability to renew your contract? What is the likelihood that you will renew with this supplier?*

Question 22: *What is the likelihood that you would recommend the supplier to a senior executive?*

VI DATA PREPARATION AND CLEANSING

Preparation of the data included the initial inspection, an assessment to verify suitability of the data to the research focus, anonymization of the dataset to protect participant identities, theme development, and coding of the data for analysis. A summary of the manipulations performed on the data is provided in Table 8.

Table 8: Manipulations Performed on Secondary Data for Analysis

Identifying information that required anonymization	1. Names of buyer firms 2. Names of supplier firms 3. Names and identifying details of informants 4. Product names
Anonymization	1. Buyer firms were categorized by industry using North American Industrial Classification System (NAICS) codes. Company names were then changed to numbers to protect their identity. 2. Supplier firm names were replaced with "Supplier Company" and a number. 3. Informant names were changed to the number assigned to their company, followed by the acronym associated with their position: M (for Manager), COO, CEO, SVP, VP. 4. Product names were replaced with the word "Product."
Initial data scan	I scanned the data (interview responses) as recommended by (Robert K. Yin, 2014), to develop early insights for theme development using memoing.
Initial theme development	From the initial scan, I developed a short list of themes, including: Proactive, Reactive, Problem Solving, Company Loyalty, Customer Needed or Requested Value Add, Company Not Interested in Added Advantages, Repurchase Intent, Cost, Competitive Advantage.
Sampling for further themes	I then sampled 10% of the data (complete interview responses of 10% of informants: 431 × 10% = 43 informants) to ensure that no themes were overlooked.
Coding	I assigned the following codes to the data: Collaboration (Yes or No), Buyer-Initiated, Seller-Initiated, Equal-Partner Initiated, Market Segment (Government, Transportation and Utility, Manufacturing, Retail, Education, Professional Services), Products and Services (Charity, Cleaning and Waste Services, Consulting and Professional Services, Facilities, Financial Services, Food or Beverage Products or Services, Food Events and Facilities), Technology. Location codes included: Domestic (North or South), International.
Full data review	I then examined all the data (i.e., all interview responses of all informants) and assigned the appropriate code to each response. I first determined whether collaboration occurred (Yes or No); if Yes, I determined whether the collaboration was buyer-, seller-, or equal-partner initiated.

Visual Inspection. I visually surveyed the data to understand the types of questions that were asked and the responses that were provided. The data was contained in 285 columns and

431 rows, for a total of 122,835 cells of content. The data was divided into two categories: a) buyer-company descriptive data (186 columns); and b) informant responses (99 columns). The descriptive data included account- and deal-specific information such as the hierarchical role of the buyer firm informant, the annual and total dollar value of the proposal, the buyer company name, and the names of the interviewers from AskForensics. The response data for each case was divided into 33 columns per informant, with one column for each specific, open-ended interview question. Because up to three informants were interviewed per case, cases could include up to 99 columns of informant responses. This data consisted of informants' names and organizational titles and their responses to the in-depth semi-structured interview questions. The interview responses contained information about the informant's interaction with the supplier, the service level and quality of the supplier, and the strengths, weaknesses, opportunities and threats associated with the supplier and their product offering. I was interested in evaluating buyer–seller collaboration; I took approximately three days to assess the data provided by AskForensics and to ensure that my research questions could be answered with this secondary dataset. It took approximately two weeks to become acquainted in detail with the specific interview questions and responses.

Data Cleansing. I incorporated several methods to protect the identity of the researchers that conducted the interviews, as well as the identities of the suppliers, buyers, and all relevant stakeholders in each company.

Anonymization of Researchers

Fictitious names were assigned to the AskForensics researchers who conducted the interviews.

Anonymization of Supplier Companies

In Excel, I sorted the field “Supplier Company” by name. To mask the identity of the supplier companies, I copied the column with company names from the AskForensics Excel workbook into a new, separate Excel workbook, in which I deleted all duplicate company names; this process showed that the 431 cases were associated with 23 different supplier companies. In the separate Excel workbook, I created a letter code for each company name (*A* through *W*). Then, using the “Find and Replace” function in Excel, I replaced all company names in the AskForensics workbook with the corresponding unique letter code. I reviewed each company’s website to determine their stated product or service offering; I initially coded the product or service offering based on that information. I then verified each company’s stated offering with the information in the AskForensics data. Next, I created two additional columns in this anonymized AskForensics workbook: one with the company code name, and one with the product or service category specified on the company website. I then aligned the letter-based company codes with the corresponding product or service offerings (Table 29, Supplier Cleansing, in Appendix). There was a total of 46 product and service segments, which was consolidated into 10 segments (Table 9: Summary of coded DVs and IVs).

Anonymization of Buyer Companies

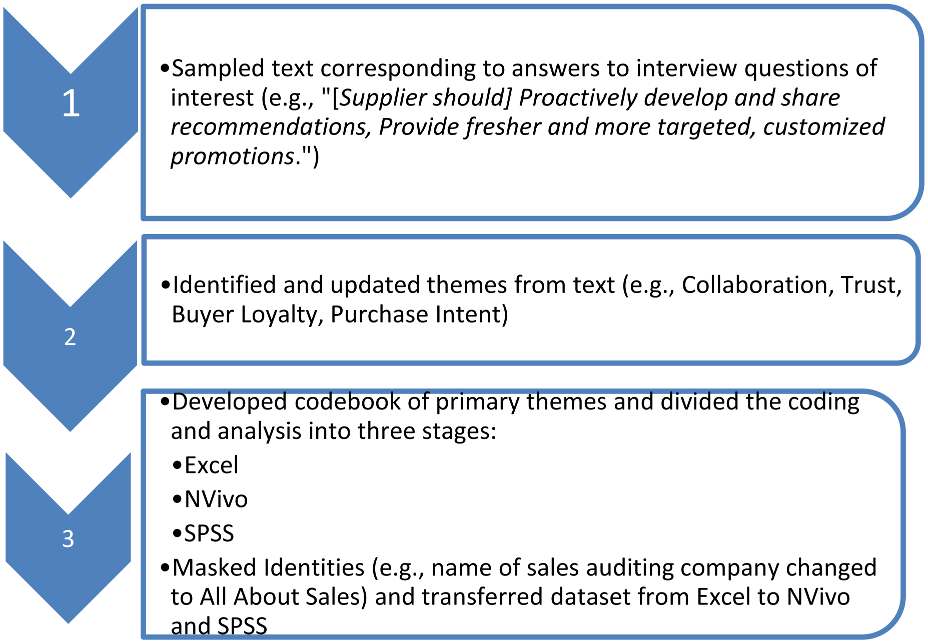
The AskForensics interviewers used names and hierarchical titles to identify the informants interviewed from the buying firms. I extracted these names from the entire file. To protect human subjects (informants and salespeople), I visually inspected each of the 122,404 cells of data to verify that no personal names or names of products purchased were stated in the workbook. Where names of people or products were found, I replaced the name with the individual's hierarchical title in their firm, and I replaced the product or service with the category code for that offering (i.e., medical, legal, consulting). Because the unit of analysis was at the case level, the sales proposal cases were numbered 1 to 431 (Table 28 in Appendix).

To identify the buyer's market segment, I used a similar approach as for the supplier companies. I visited each buyer firm website and identified the market segment with which they aligned themselves, as was done to identify buyers' product or service offerings. There was a total of 27 market segments, which were consolidated into 6 segments (Table 27).

Data Coding and New Insights. Coding is a major consideration in data analysis (M.B. Miles & Huberman, 1994). Matthew B. Miles and Huberman (1984) note that extensive coding enables qualitative analytic techniques such as graphs, charts, and word clouds to be generated to add meaning to the data.

I coded the dataset using Ryan and Bernard's (2000) taxonomy as a guide (Figure 4). First, I examined a subset of responses to the interview questions of interest to identify key themes for coding in NVivo. I reviewed 10% (43) of the total responses (431 × 10% = 43) to create the baseline coding. The interval size was 10 and a random number (7) was used for sample selection. Based on the number of row entries in NVivo, I reviewed every row with a number 7 to develop the initial theme nodes. I developed a codebook that included the primary themes, which helped me understand if collaboration took place as well as to understand the nature of the interaction (Table 30: Appendix). Coding was divided iteratively into three stages: Excel, NVivo and SPSS. After masking all identities, I transferred the dataset from Excel into NVivo to facilitate analysis. I developed models in NVivo to describe how concepts and themes were connected. Then, I used the established sample as the baseline for node development (Figure 4).

Finally, I tested these models quantitatively in SPSS.



- Sampled text corresponding to answers to interview questions of interest (e.g., "[*Supplier should] Proactively develop and share recommendations, Provide fresher and more targeted, customized promotions*.")

- Identified and updated themes from text (e.g., Collaboration, Trust, Buyer Loyalty, Purchase Intent)

- Developed codebook of primary themes and divided the coding and analysis into three stages:
  - Excel
  - NVivo
  - SPSS
- Masked Identities (e.g., name of sales auditing company changed to All About Sales) and transferred dataset from Excel to NVivo and SPSS

Figure 4: Data Analysis Process

VI.1 Coding of DVs and IVs

I was first interested in assessing whether each sales interaction was collaborative or not and in understanding the strategic alignment of the seller firm to the buyer firm. I intended to evaluate the responses to the interview questions through the lens of interorganizational collaboration, by examining whether collaboration took place, who initiated the collaboration (buyer, seller, or equal partner), the geographic region in which the sales interaction took place (Northern versus Southern US, and Domestic versus International), and whether the product offering and/or the market segment influenced the outcome of collaboration. In addition, I sought to understand the impact of the initiator of the collaboration on perceived supplier performance and buyer loyalty. To assess buyer loyalty, I examined whether the seller would be invited to participate in the bidding process if there was a near-term selling opportunity, and whether the senior executive of the buyer firm would be willing to provide a reference for the seller firm. As stated earlier, I considered collaboration to have occurred if the sales dialog involved problem solving or value creation; value creation includes a strategy to increase productivity or efficiency, to reduce waste, or to create a competitive advantage.

The exploration of the data as I coded it led to insights about the character and behavior of the 5 DVs and 6 IVs. As you will see in the ensuing report, for the current research, the data supported DV1, DV2 and DV5 as continuous variables, and DV3 and DV4 as categorical with two values each. This process also indicated that all six IVs were categorical: IV1, collaboration (2 values); IV2, initiator type (3 values); IV3, market segment (6 values); IV4, product and service type (10 values); IV5, location (2 values); and IV6, US culture (2 values). To assess the overall effectiveness of collaborative selling, a new DV was created. I performed a correlation test to establish whether a relationship existed between the likelihood to renew and the likelihood to be a reference. The resulting correlation value of .792 showed that a statistically significant correlation existed, based on Chronbach’s alpha value >0.7. Therefore, I combined likelihood to renew with likelihood to refer, to create DV5, Effectiveness of Sales Collaboration.

The DVs and IVs are summarized in Table 9, which is followed by a detailed discussion about how the variables were explored from the data and coded accordingly.

Table 9: Summary of Coded DVs and IVs

	Variable type	Code Values	Number of values in original data	Number of values after bundling	Number of useful cases
DV1: Likelihood of Renewing Without RFP (if possible)	Continuous	1-10	N/A	N/A	226
DV2: Likelihood to be a Reference	Continuous	1-10	N/A	N/A	242
DV3: Seller is Strategically Aligned with Buyer Company	Categorical	Yes or No	4	2	267
DV4: Willingness to Include Seller in a Strategic Initiative	Categorical	Yes or No	3	2	403
DV5: Effectiveness of Sales Collaboration	Continuous	Average value of DV1 and DV2	N/A	N/A	246
IV1: Collaboration	Categorical	Yes or No	3	2	265
IV2: Initiator Type	Categorical	Buyer, Seller, Equal Partner	4	3	244
IV3: Market Segment	Categorical	Government, Transportation/Utility, Manufacturing, Retailer, Education, Professional Services	27	6	431
IV4: Product and Service Type	Categorical	Charity, Cleaning & Waste Services, Consulting & Professional Services, Facilities, Financial Services, Food & Beverage/Products & Services, Food/Events/Facilities, Products (General), Services (General)	46	10	431
IV5: Location: Domestic versus International	Categorical	Domestic, International	431	2	431
IV6: US Culture (North versus South)	Categorical	North South	431	2	416

IV1: Collaboration

Recall that I defined collaboration as a sales dialog that attempted to solve a unique problem or to create value. Value creation could involve an attempt to increase productivity or efficiency, to reduce waste, or to engage in an activity leading to a competitive advantage. To assess whether or not collaboration occurred, I examined the interview responses to Question 7:

> Provide examples of how the 'selling company' proactively developed and proposed solutions.

Valid cases included information that identified the presence or absence of collaboration as just described. Cases were considered invalid if they were either a) unidentifiable: cases that did not include a response in the informants' comments indicating if collaboration took place; or b) indiscernible: cases in which informant responses left room for ambiguity and uncertainty as to whether collaboration took place. Both unidentifiable and indiscernible cases were dropped from this analysis.

IV2: Initiator Type

I evaluated the informant responses to interview Question 7 (see IV1 above). I was originally interested in seller-initiated collaboration, and I developed a coding schema that included 18 types of seller-initiated collaboration (Table 10). Assessment of the responses to Question 7 suggested that many cases of collaboration were not seller initiated. A subsequent review of the literature on the initiation of sales collaboration suggested that there were three types of collaboration: a) seller-initiated, b) buyer-initiated, and c) equal partner-initiated.

Consistent with exploratory research, I expanded the analysis to include the three types of initiation that appeared in the literature and the data, and I grouped the 18 types of seller-initiated collaboration into one category, "Seller-Initiated." I considered a case valid for the construct initiator type if interview responses included information that identified the initiating party, as shown in the examples below. I considered a case invalid if it was unidentifiable, i.e., it did not include informant responses to questions about proactive improvements provided by the seller, or if the responses were indiscernible, i.e., they did not fully indicate who initiated the collaboration and they left room for ambiguity and uncertainty. Both unidentifiable and indiscernible cases were dropped from this analysis. A total of 37 cases were either blank or unclear on the issue of initiating party; I recorded these cases as "unclear." I coded the remaining 103 cases (responses to Question 7) as either buyer-initiated or equal partner-initiated collaboration. Since the independent variable '*initiator*' is categorical, I created dummy variables for each subcategory using the method described above.

Table 10: Original coding of proactive responses in 18 categories.

Q7 Comments about Proactive Improvements	**Example Responses**
Proactive recommendations provided during (any/all) contract discussions	Yes, when we first engaged them or (during contract renewal), better than competitors
Proactive recommendations provided at contract renewal	Yes, during contract review
Proactive solutions in the beginning, but not since then	Yes, that is why we first engaged them, however no further recommendations
Proactive recommendations provided during "new" proposal acquisition	Yes, that is why we first engaged them, however no further recommendations
Proactive recommendations provided during modified rebuy	Instead of just renewing the contract, we included these features which helped us…
Cost benefit analysis conducted	Not supported quantitatively
Cost neutral solution	We were okay with the solution because the increased cost was offset by the profits that were gained
Loss mitigation	Yes, we had a situation that they were able to alert us to that prevented…
Responsive vs. Reactive recommendations	whenever we ask for something, they are responsive
Proactive recommendation provided once competition is involved	only after they found what the competition was doing
Recommendation helped us beat the competition	Their recommendation gave us a competitive advantage over XYZ company
Recommendations increase revenue or profit	They are a real partner, they helped us increase revenue
Recommendations decrease revenue	Their recommendation cost us more than the ROI
Recommendations viewed as investment vs. cost	Their recommendation cost us more than the ROI
Question not asked	(Blank)
Not applicable	This question did not apply; N/A
"Salesy"	The recommendation was expensive and lacked a positive ROI, they were just trying to sell us stuff
Recommendation reduced waste	The solution helped us minimize resources

Seller-initiated collaboration was identified by comments such as:

> They are intimately familiar with my portfolio of products and they have proposed good, customer-centric solutions around those. And I mean, they also have a whole list of products they offer, but they generally only present options that genuinely make life easier for us (Vice President Service Delivery, “Buying Co. #10”).

> They initiate lots of activities and suggestions. During every budget cycle they have ideas about expenses and on a regular basis they are driving new ideas on how to build our income (Executive Vice President, “Buying Co. #315”).

When interviewer asked whether the salesperson proactively developed and proposed solutions:

> Yes, absolutely. For example, they are coming out with a new product that will overcome several customer service issues called “PRODUCT” (Chief Systems Officer, “Buying Co. #400”).

Buyer-initiated collaboration was represented by the following comments, as examples:

> So far, my partnership with "Software Company" has been targeted at a specific application. So, we approached them and said that we were interested in doing this and we know you have a product in that space. So they helped us get there and have done a great job since. But in order to be proactive, you have to be more strategic. And I am not sure that was possible for them (Manager Web Administration, “Buying Co. #1”, MI).

> You typically have to reach out to them and let them know that you have an issue or you are seeking a particular solution, and they will come and help (Vice President of Digital Experience & Business Insights, “Buying Co. #31”).

Equal partner-initiated collaboration included the following comments:

> We worked collaboratively on some alternative serving areas at our high school. They did a very good job in coming up with solutions for that. (Executive Director of Finance).

> I feel that in some respects they have contributed to solutions, and in others they have responded to our recommendations. Within the last few months, we

> recommended they make some transfers of assignments from the custodial staff. That seems to be working productively (Superintendent, “Buying Co. #170”).
>
> I have seen that occur through the development process, as well as post production, that when something comes up the Technology and the Business account team will come to us and communicate that. They tell us that there is an opportunity here where they have been working on something and can improve upon it. We also set our targets. It is like anything that at some point there are diminishing returns. There has to be some type of cost benefit ratio like we can tweak so far, but at the end of the day you have to make sure it is providing enough benefit for us to incur the additional cost of development. That is a cost "Digital Security" helps us to manage (Director, Credit and Collections, “Buying Co. #292”).

IV3: Market Segment

After reviewing each company website, I initiated coding of the variable *Market Segment* based on how firms were identified on their websites. That classification yielded 27 market segments (Table 11). I performed this task in Excel prior to importing the data into IBM’s SPSS quantitative database. In order to perform regression analyses to assess whether there was a relationship between the independent variable Market Segment and the continuous dependent variables Likelihood to Renew Contract, Likelihood to Provide a Reference, and Effectiveness of Interorganizational B2B Selling, the categorical data needed to be recoded using dummy variables. This coding also allowed me to investigate IV4 (Products and Services), IV5 (Domestic versus International) and IV6 (US North versus South).

After importing the data into SPSS, I recoded Market Segment. I categorized the buyer companies by industry using North American Industrial Classification System (NAICS) codes, which reduced the number of segments to eight. For analytical purposes, I initially combined all buyer markets that appeared to be similar in an effort to combine industries that I perceived to behave similarly/homogenously. For example, I combined all financial services markets, which included: business banking and corporate finance, data, insurance, and retail bank or credit union. I also combined all government entities into one market labeled ‘government’; these entities included: city, state, county, district, and public schools. Then, I combined all professional service companies into a market labeled ‘professional services.’ Professional Services included legal firms, real estate facilities and services, real estate holdings, industrial consulting, travel-related services, and web services. After consolidating markets in this way, I reviewed the consolidation and concluded that financial services was a subset of professional services; thus, I included financial services with professional services. Table 12 shows the final six market segment listings.

Table 11: Market Segments- Initial coding of 27 segments

Market Segments	Frequencies	
Transportation	1	.2
Comms/Utilities	9	2.1
Education - Public School District	140	32.5
Education - School District - Private	7	1.6
Education - School District - Public	1	.2
Financial Services - Business Banking or Corp Fin	5	1.2
Financial Services - Data	7	1.6
Financial Services - Insurance	5	1.2
Financial Services - Retail Bank or CU	79	18.3
Government - City	2	.5
Government - County	11	2.6
Government - State	1	.2
Higher Education - University - Private	2	.5
Higher Education - University - Public	1	.2
Hospitality - Hotel	2	.5
Hospitality - Restaurant	5	1.2
Legal - Law Firm	7	1.6
Manufacturing - Durable Goods	13	3.0
Manufacturing - Electronics	7	1.6
Manufacturing - Non-Durable Goods	8	1.9
Medical - Hospital	53	12.3
Real Estate - Facility Services	2	.5
Real Estate - Holding	5	1.2
Retailer	40	9.3
Service Industry - Consulting	8	1.9
Service Industry - Software and Web Services	9	2.1
Travel-Related Services - Aircraft Catering	1	.2
Total	431	100.0

Table 12: Market Segments, Condensed

		Frequency	Percent
	Government	156	36.2
	Education Private	9	2.1
	Transportation & Utilities	10	2.3
	Retailer	40	9.3
	Professional Services	188	43.6
	Manufacturing	28	6.5
	Total	431	100.0

IV4: Product and Service Type

There were 46 Product and Service types, based on how suppliers referred to themselves on their websites. A process similar to that used for Market Segment was incorporated for Product and Service Type to bundle this grouping. This led to a final bundling of 10 Product and Services types (Table 13).

Table 13: Final Product and Service Type

		Frequency	Percent
	Charity	10	2.3
	Cleaning_and_Waste_Svs	13	3.0
	Consulting_and_Prof_Svs	16	3.7
	Facilities	58	13.5
	Financial Svs	83	19.3
	Food_Bev_Prod_Svs	140	32.5
	Food_Events_Facilities_Omit	14	3.2
	Products_General	5	1.2
	Services_General	53	12.3
	Technology	39	9.0
	Total	431	100.0

IV5: Location: Domestic versus International

I was interested in assessing whether international markets behaved differently from those in the United States; therefore, I coded each case as either domestic or international according to the location of the buyer company.

IV6: US Culture (North versus South)

As recommended by Tukey (1980) and Eisenhardt (1989), I iteratively dissected and re-bundled this group using the process described below guided by literature and my professional experience. The data, as received, were divided by state. I visually scanned the data to ensure there were no missing state values; this scan verified that each cell included the requisite state. Then, I ran a frequency table in SPSS and found that several states had only one entry. Given concerns about basing assumptions on a single case, I grouped the states into geographic divisions. First, I coded each state with a unique identifier and created a dummy variable for each state. Then, I assigned states to the nine United States Census Divisions (Pacific, Mountain, West North Central, West South Central, East North Central, East South Central, Middle Atlantic, South Atlantic, New England; Figure 5), and I created a code for each Division, for a total of nine Divisions.

Grouping the cases by geographic Division revealed that the Mountain and West North Central Regions had few entries. Therefore, I grouped the cases according to the four United States Census Regions (West, Midwest, Northeast, South; Figure 5). I used the US Census map to separate southern and northern states. In my sales practice, I have observed differences in the way sales relationships are developed and nurtured in the North versus the South.

To examine US culture (North vs. South), I divided the US cases into a) Northern and b) Southern areas. I created two regional codes in SPSS and assigned the cases to the corresponding regions. For the Mountain States, I used the northern border of California as a divisionary guide to separate northern and southern states.

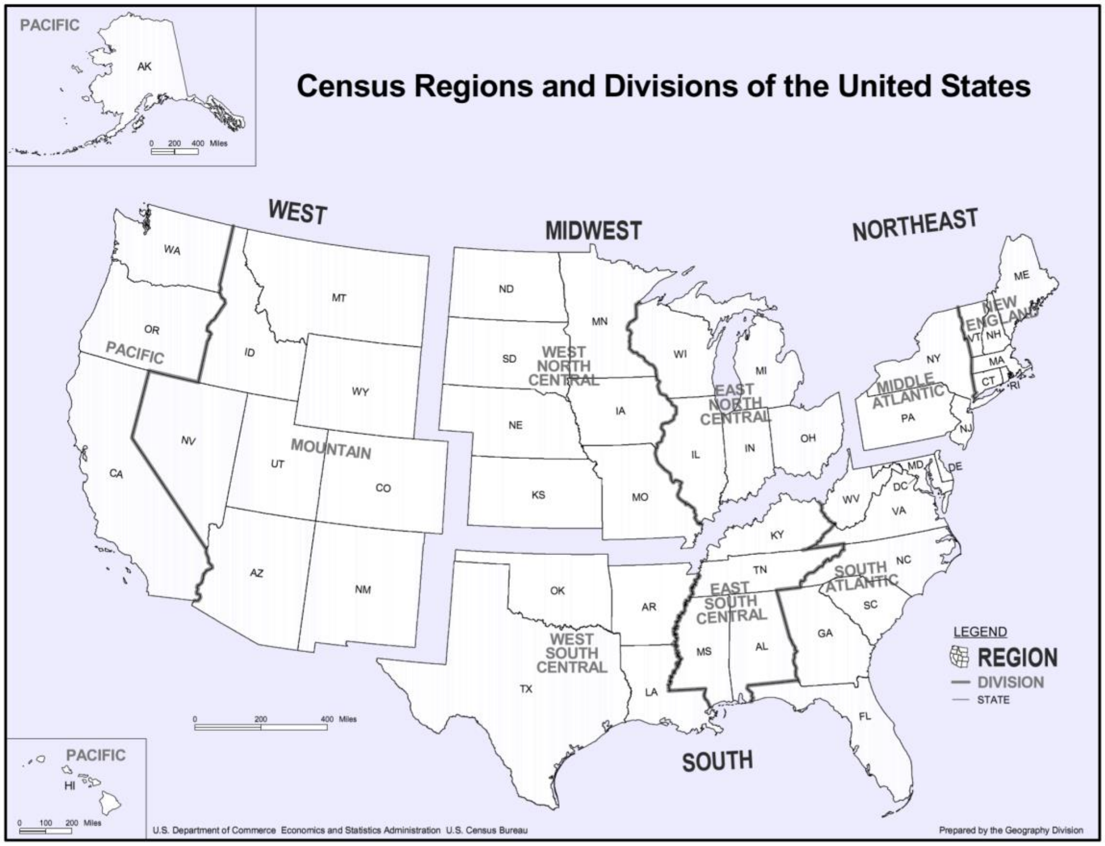

Census Regions and Divisions of the United States
PACIFIC
AK
0 200 400 Miles
WEST
MIDWEST
NORTHEAST
SOUTH
PACIFIC
MOUNTAIN
WEST NORTH CENTRAL
EAST NORTH CENTRAL
WEST SOUTH CENTRAL
EAST SOUTH CENTRAL
SOUTH ATLANTIC
MIDDLE ATLANTIC
NEW ENGLAND
WA
OR
CA
ID
NV
MT
WY
UT
CO
AZ
NM
ND
SD
NE
KS
MN
IA
MO
WI
IL
MI
IN
OH
KY
TN
MS
AL
OK
TX
AR
LA
WV
VA
DC
MD
DE
NC
SC
GA
FL
NY
PA
NJ
ME
VT
NH
MA
CT
RI
0 200 400 Miles
PACIFIC
HI
0 100 200 Miles
LEGEND
REGION
DIVISION
STATE
U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau
Prepared by the Geography Division

Figure 5: U.S. Census Map

DV1: Likelihood of Renewing Without RFP (If Possible)

The embedded survey included in the interview consisted of questions 21 and 22. Question 21 asked respondents to rate their organization's likelihood to renew the contracted services with the client without issuing an RFP, if possible. Responses were given on a scale of 1 to 10, with 10 being "extremely likely." Therefore, coding was not required for this DV.

DV2: Likelihood to be a Reference

Interview Question 22, part of the embedded survey, asked respondents to rate their likelihood to provide a reference for the seller to senior executive peers at other organizations.

Responses were given on a scale of 1 to 10, with 10 being “extremely likely.” Therefore, coding was not required for this DV.

DV3: Seller is Strategically Aligned with Buyer Company

To assess whether there was strategic alignment between the selling and buying company, I examined respondents’ answers to interview Question 4, which asked whether or how closely the seller’s solution was aligned with the buyer’s strategic objectives. Valid cases contained a response to this question; invalid cases either did not contain a response or contained a response that could not be definitively interpreted. Cases were coded as positive (“Yes”) for Seller is Strategically Aligned with Buyer Company if they contained a response of “Yes” to this interview question; cases that contained a response of “No” to this question were identified as negative (“No”).

DV4: Willingness to Include Seller in a Near-term RFP (If one is Anticipated)

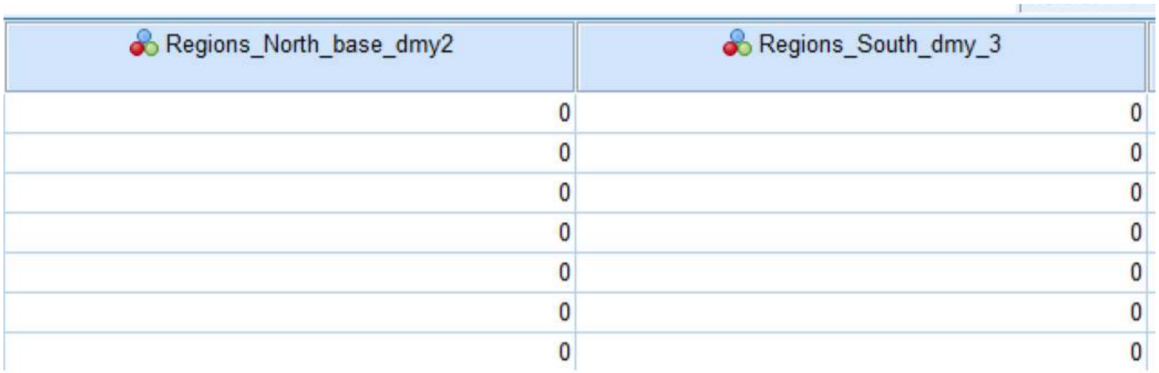
Interview Questions 17 and 18 asked buyer company executives whether they had upcoming initiatives and plans that may require issuing a new RFP, and if so, whether the seller would be included in these initiatives. Cases were invalid if the buyer did not have upcoming initiatives or if no answer was given to this question. Cases were identified as “Yes” for willingness to include seller in a strategic initiative if a near-term RPF is anticipated if the buyer gave a direct affirmative response to this question, and as “No” if their response was negative.

DV5: Effectiveness of Sales Collaboration

As a measure of the effectiveness of sales collaboration, I combined the answers to interview questions 21 and 22, which asked buyers to rate sellers on a scale of 1 to 10, as captured in DVs 1 and 2 above (Likelihood of Renewing Without an RFP and Likelihood to be a Reference). Therefore, this construct was an average of DV1 and DV2, captured using the Mean function in SPSS. Where ratings were missing in answer to either of those questions, those cases were excluded from DV5.

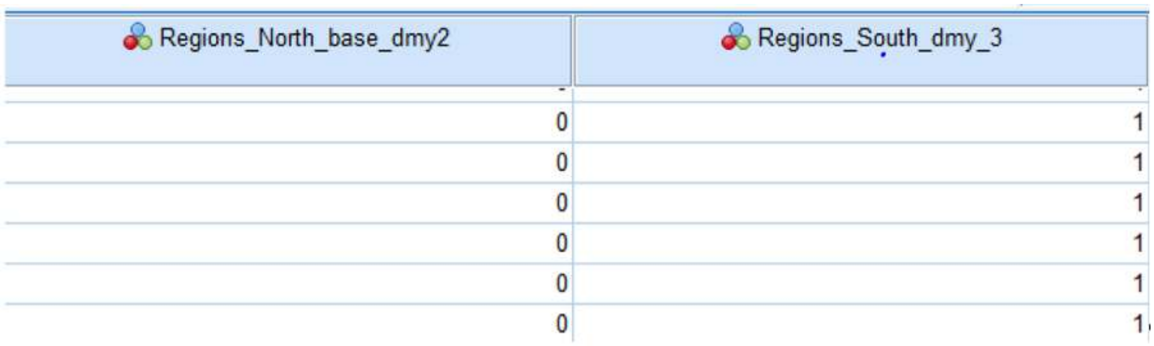
Dummy Coding

Dummy coding is used to enable regression analysis of categorical variables. In dummy coding, a value of one is assigned to one subcategory, and a value of zero is assigned to all other subcategories. The researcher identifies one of the subcategories as the base unit of analysis; the value of zero is used for the base. The base is identified by experience, or arbitrarily. Using the North as the base subcategory, I recoded North as 0, 0. An example of the final dummy coding used for this process is shown below in Figure 6 and Figure 7.



Regions_North_base_dmy2	Regions_South_dmy_3
0	0
0	0
0	0
0	0
0	0
0	0
0	0

Figure 6: Dummy Code 1



Regions_North_base_dmy2	Regions_South_dmy_3
0	1
0	1
0	1
0	1
0	1
0	1

Figure 7: Dummy Code 2

Codebook

I created one Microsoft Excel workbook, called AskForensics, to house all the codes (the codebook: Table 28, Table 29, Table 30). In that workbook, I created tabs for all variables that were recoded (South, North, domestic, international, initiator, collaborator, supplier company, buyer company).

VI.2 Exploration with Descriptive Statistics

Equipped with the clean and coded data, to continue further exploration, I conducted the following analysis to better understand the behavior of the data. Specifically, I was looking for any signals from the descriptive statistics that would help answer my research questions:

RQ1: ***What factors influence the effectiveness of interorganizational B2B selling?***

SRQ1.1: ***Does collaboration influence the effectiveness of interorganizational B2B selling?***
SRQ1.2: ***Does who (buyer, seller, equal partner) initiates influence the effectiveness of interorganizational B2B selling?***
SRQ1.3: ***Does market segment influence the effectiveness of interorganizational B2B selling?***
SRQ1.4: ***Does product or service influence the effectiveness of interorganizational B2B selling?***
SRQ1.5: ***Does location (domestic versus international) influence the effectiveness of interorganizational B2B selling?***

SRQ1.6: ***Does US culture (North versus South) influence the effectiveness of interorganizational B2B selling?***

VII ANALYSIS AND RESULTS

VII.1 Univariate Analysis

Table 14 summarizes the statistics for DVs 1, 2 and 5. A close inspection of the statistics showed that all DVs had reasonable variance relative to the central tendencies (mean). I checked whether the data followed a reasonably normal distribution; no non-normal distributions were detected. This conclusion was supported by the histograms for each of the 11 variables.

DV1: Likelihood of Renewing Without RFP (if possible)

DV2: Likelihood to be a Reference

DV3: Seller is Strategically Aligned with Buyer Company

DV4: Willingness to Include Seller in a Strategic Initiative

DV5: Effectiveness of Sales Collaboration

IV1: Collaboration

IV2: Initiator

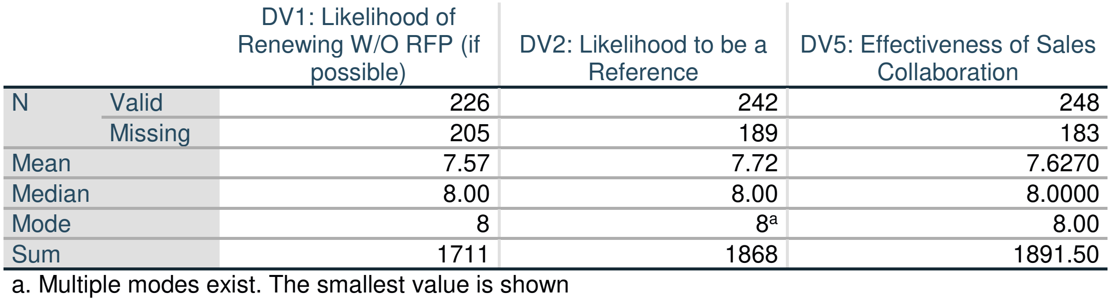
IV3: Market Segment

IV4: Products and Services

IV5: Location: Domestic versus International

IV6: US Culture (North versus South)

Table 14: Descriptive Statistics for Continuous DVs (DV1, DV2, DV5)



		DV1: Likelihood of Renewing W/O RFP (if possible)	DV2: Likelihood to be a Reference	DV5: Effectiveness of Sales Collaboration
N	Valid	226	242	248
	Missing	205	189	183
Mean		7.57	7.72	7.6270
Median		8.00	8.00	8.0000
Mode		8	8[a]	8.00
Sum		1711	1868	1891.50

a. Multiple modes exist. The smallest value is shown

IV1: Collaboration

I considered collaboration to have occurred if a proposal involved problem solving, aimed to increase productivity or efficiency, involved reduction of waste, or attempted to help create a competitive advantage. Out of 431 total cases, 265 cases were valid for the construct collaboration, and 166 cases were either unidentifiable or indiscernible as involving sales collaboration. After removing unidentifiable and indiscernible cases, 235 cases remained as “Yes” for collaboration, and 30 as “No.” (Figure 27)

IV2: Initiator Type

Using informant responses to interview Question 7, I coded each valid case as involving either seller-initiated, buyer-initiated, or equal partner-initiated sales collaboration. Out of 431 total cases, 187 cases were either unidentifiable or indiscernible as to initiating party. This led to 244 valid cases for coding by initiator type. In total, 90 cases were coded as “Buyer-Initiated,” 141 cases were coded as “Seller-Initiated,” and 13 cases were coded as “Equal-Partner-Initiated” for this construct. (Figure 28)

IV3: Market Segment

The final coding of market segments by NAICS, after combining government entities into a segment entitled “Government” and professional service companies into a segment labeled ‘Professional Services,’ resulted in six distinct market segments. Of the 431 total cases, there were no unidentifiable or indiscernible cases in relation to market segment. 156 cases were coded as “Government,” 9 cases were coded as “Education Private,” 10 cases were coded as “Transportation & Utilities,” 40 cases were coded as “Retailer,” 188 cases were coded as “Professional Services,” and 28 cases were coded as “Manufacturing” for this construct. (Figure 29)

IV4: Product and Service Type

Bundling of Product and Service types resulted in 10 categories for this construct. Of the 431 cases, there were no unidentifiable or indiscernible cases in relation to Product and Service type. Ten cases were coded as “Charity,” 13 were coded as “Cleaning and Waste Services,” 16 were coded as “Consulting and Professional Services,” 58 were coded as “Facilities,” 83 were coded as “Financial Services,” 140 were coded as “Food and Beverage Products and Services,” 14 were coded as “Food Events and Facilities,” 5 were coded as “Products General,” 53 were coded as “Services General,” and 39 cases were coded as “Technology.” (Figure 30)

IV5: Location: Domestic versus International

To assess whether US and international markets behaved differently in terms of B2B interactions and collaboration, I examined the data according to location of the buyer company. In total, there were 15 International cases and 416 domestic cases. (Figure 32)

IV6: US Culture: North versus South

Each case was associated with a US State or with another country. The final geographic coding classified US cases as Southern or Northern. Of the 431 cases, 416 were located in the United States. Of these, 201 cases were coded as "US (North)," and 215 cases were coded as "US (South)." (Figure 31)

DV1: Likelihood of Renewing Without RFP (If Possible)

Cases were coded as positive or negative for likely to renew without an RFP according to buyer company responses to interview question 21. Out of 431 total cases, there were 226 valid cases; 205 cases were not discernable in relation to this construct because no answer was given to this interview question. Of the 226 valid cases, 187 cases were identified as positive ("Yes") for Likelihood of Renewing Without an RFP (If Possible), and 39 cases were identified as negative ("No"). (Figure 22)

DV2: Likelihood to be a Reference

Cases were coded as positive or negative for likelihood of the buyer to provide a reference for the seller, according to buyer company responses to interview question 22. Out of 431 total cases, 189 cases were missing an answer to this interview question, leaving 242 valid cases. Of the 242 valid cases, 204 cases were identified as positive ("Yes") and 38 cases were identified as negative ("No") for Likelihood to be a Reference. (Figure 23)

DV3: Seller is Strategically Aligned with Buyer Company

I examined buyer responses to interview question 4, which asked whether the seller's solution was aligned with the buyer's strategic objectives. Out of 431 total cases, 267 cases were valid; 164 cases were not identifiable or discernable in relation to this construct. Of the 267 valid cases, 238 cases were identified as positive ("Yes"), and 29 cases were identified as negative ("No") for Seller is Strategically Aligned with Buyer Company. (Figure 24)

DV4: Willingness to Include Seller in a Strategic Initiative

The AskForensics interviewers asked buyer company executives to state whether they would include the seller in any upcoming strategic initiatives that would involve a new RFP. Out of 431 total cases, there were 260 valid cases; this construct did not apply in 143 cases because the buyer did not have a near-term RPF. In addition, 28 cases were missing an answer to this question. In total, 251 cases were identified as positive ("Yes") for Willingness to Include Seller in a Strategic Initiative (If Near-term RPF), and 9 cases were identified as negative ("No"), in direct response to this interview question. (Figure 25)

DV5: Effectiveness of Sales Collaboration

Recall from the coding section that I combined DV1 and DV2 to obtain the global measure Effectiveness of Sales Collaboration as DV5. Out of 431 total cases, there were 246 valid cases for this combined measure. The remaining 183 cases were not identifiable or discernable because ratings were missing in answer to interview questions 21 and 22; these cases were excluded from DV5. Two additional cases were excluded because their average rating was

5.5. In total, 211 cases were identified as positive for Effectiveness of Sales Collaboration, and 35 were identified as negative. (Figure 26)

VII.2 Bivariate Analyses

Below, Figure 8, Figure 9 and Figure 10 show the models that discuss the relationships between variables assessed with bivariate analyses.

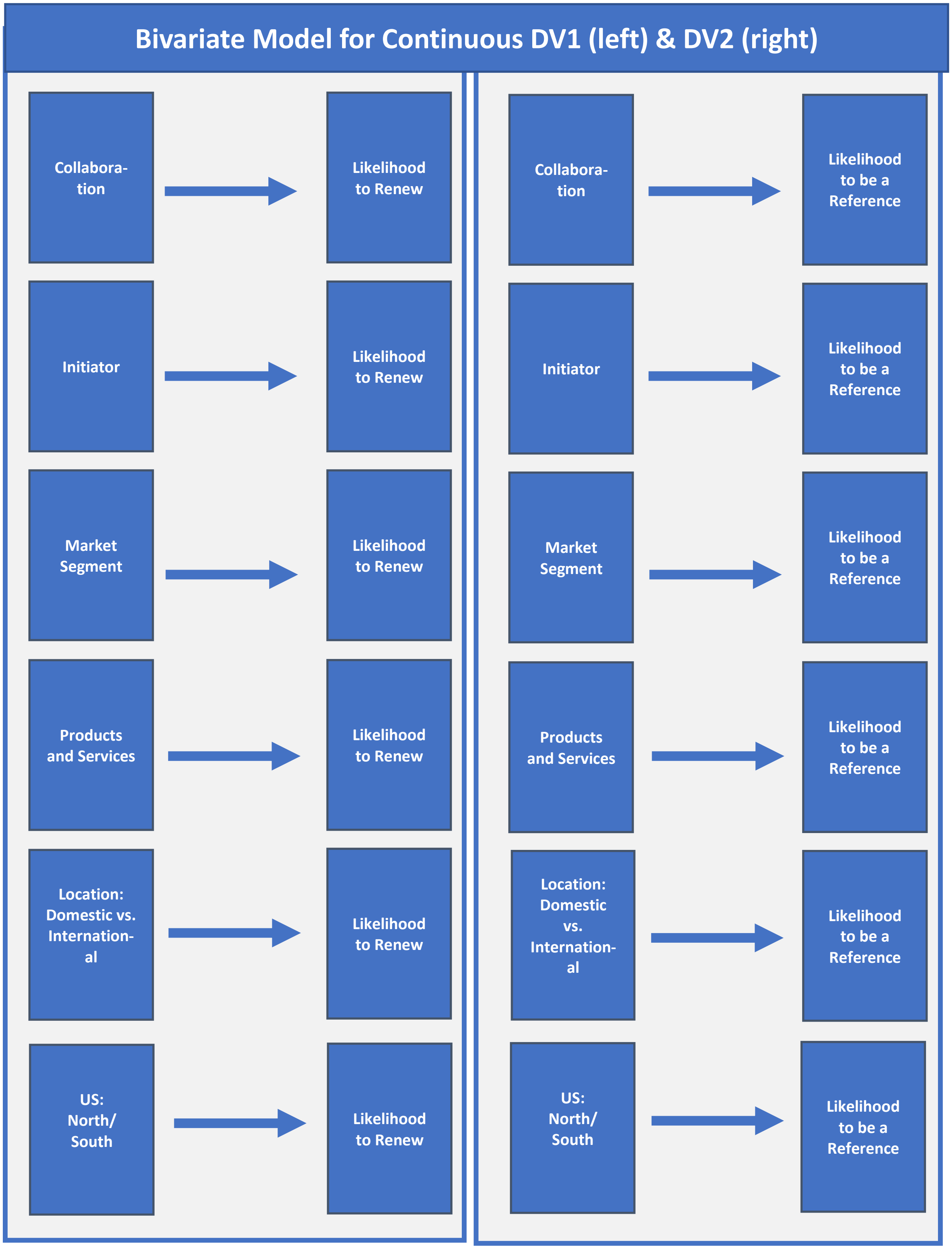

Bivariate Model for Continuous DV1 (left) & DV2 (right)
Collaboration
Likelihood to Renew
Initiator
Likelihood to Renew
Market Segment
Likelihood to Renew
Products and Services
Likelihood to Renew
Location: Domestic vs. International
Likelihood to Renew
US: North/ South
Likelihood to Renew
Collaboration
Likelihood to be a Reference
Initiator
Likelihood to be a Reference
Market Segment
Likelihood to be a Reference
Products and Services
Likelihood to be a Reference
Location: Domestic vs. International
Likelihood to be a Reference
US: North/ South
Likelihood to be a Reference

Figure 8: Bivariate model, DV1 and DV2

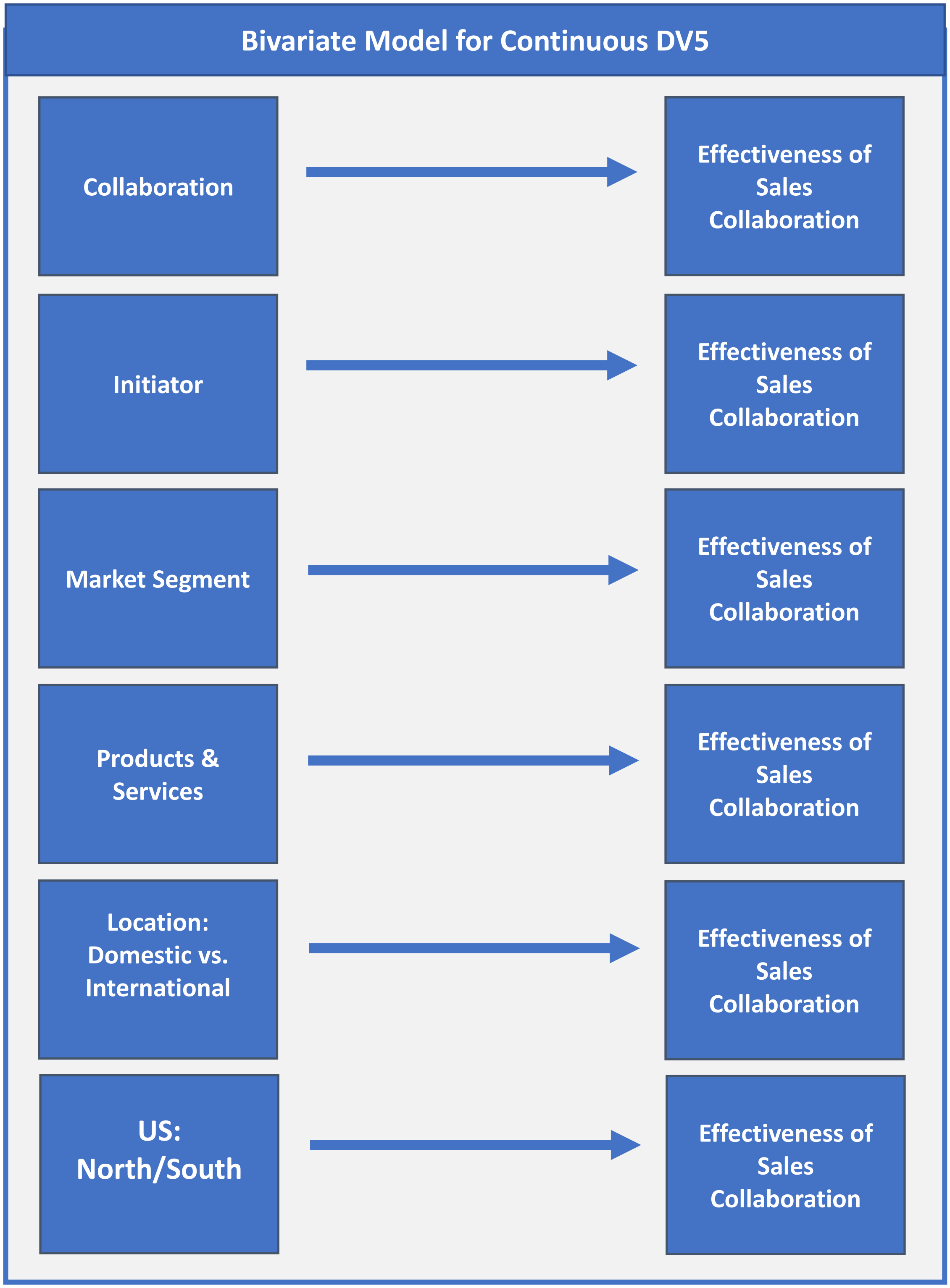

Bivariate Model for Continuous DV5
Collaboration
Effectiveness of Sales Collaboration
Initiator
Effectiveness of Sales Collaboration
Market Segment
Effectiveness of Sales Collaboration
Products & Services
Effectiveness of Sales Collaboration
Location: Domestic vs. International
Effectiveness of Sales Collaboration
US: North/South
Effectiveness of Sales Collaboration

Figure 9: Bivariate model, DV5

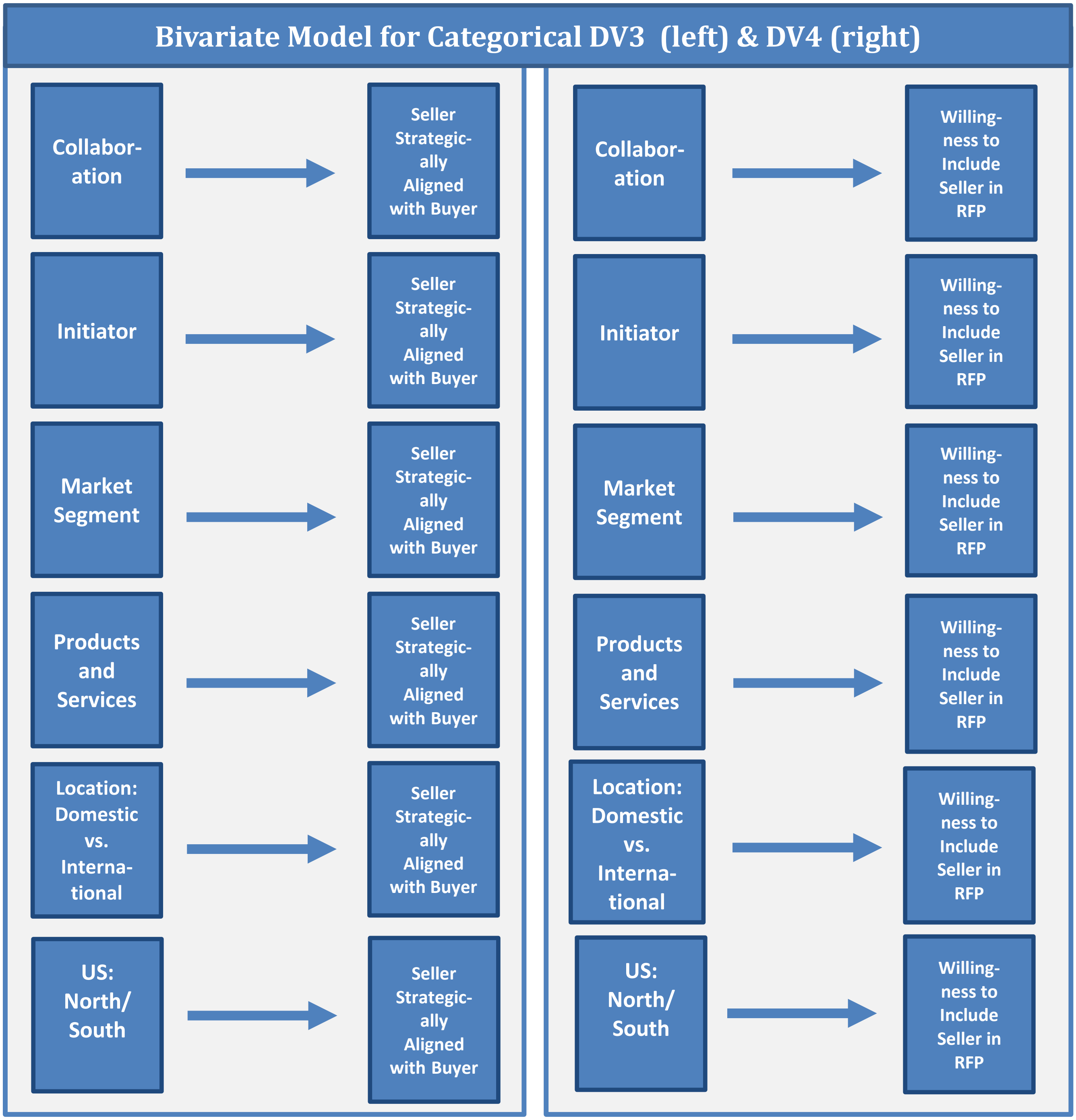

Bivariate Model for Categorical DV3 (left) & DV4 (right)
Collaboration
Seller Strategically Aligned with Buyer
Initiator
Seller Strategically Aligned with Buyer
Market Segment
Seller Strategically Aligned with Buyer
Products and Services
Seller Strategically Aligned with Buyer
Location: Domestic vs. International
Seller Strategically Aligned with Buyer
US: North/ South
Seller Strategically Aligned with Buyer
Collaboration
Willingness to Include Seller in RFP
Initiator
Willingness to Include Seller in RFP
Market Segment
Willingness to Include Seller in RFP
Products and Services
Willingness to Include Seller in RFP
Location: Domestic vs. International
Willingness to Include Seller in RFP
US: North/ South
Willingness to Include Seller in RFP

Figure 10: Bivariate model, DV3 and DV4

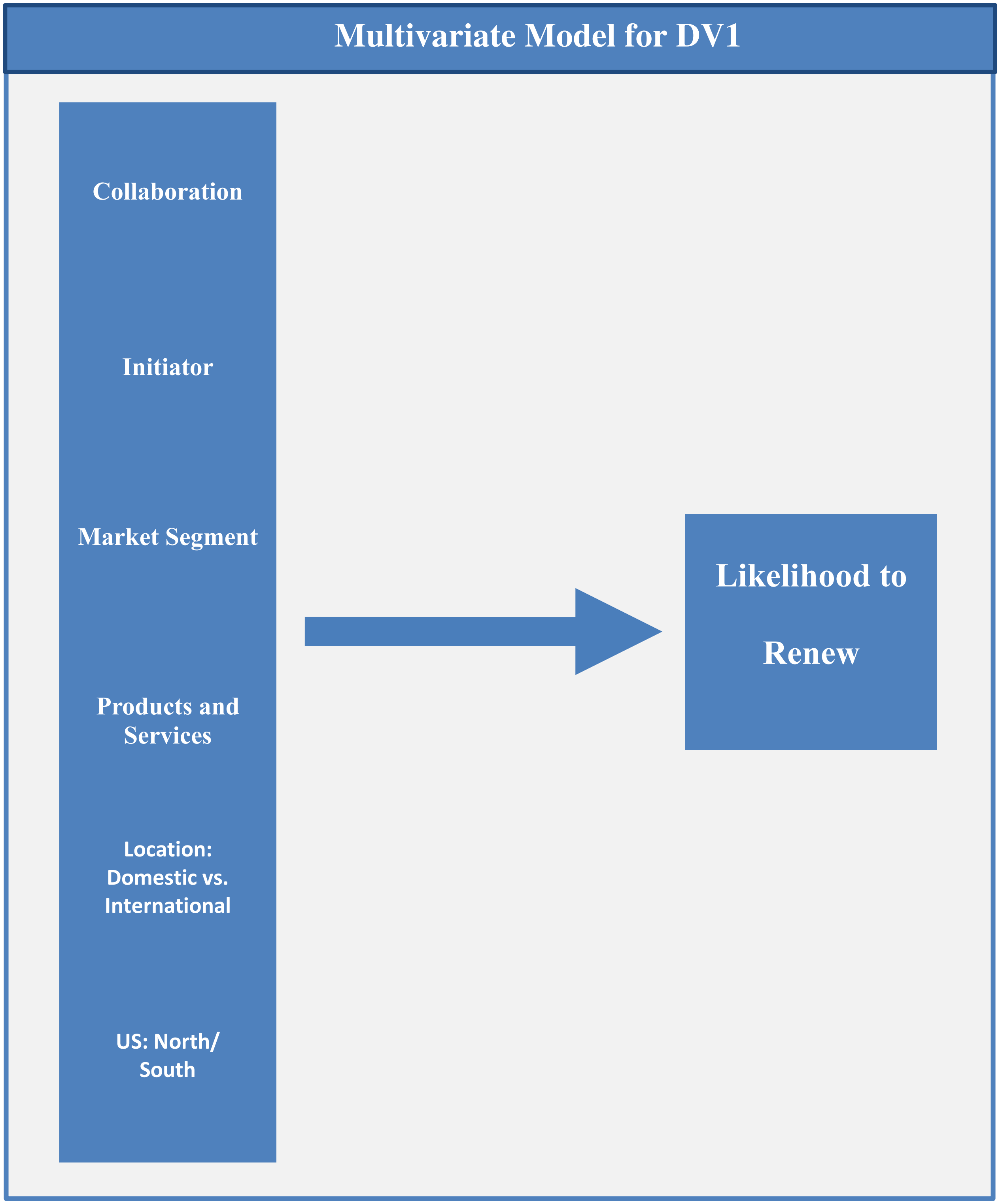

Multivariate Model for DV1
Collaboration
Initiator
Market Segment
Products and Services
Location: Domestic vs. International
US: North/ South
Likelihood to Renew

Figure 11: Multivariate Model, DV1

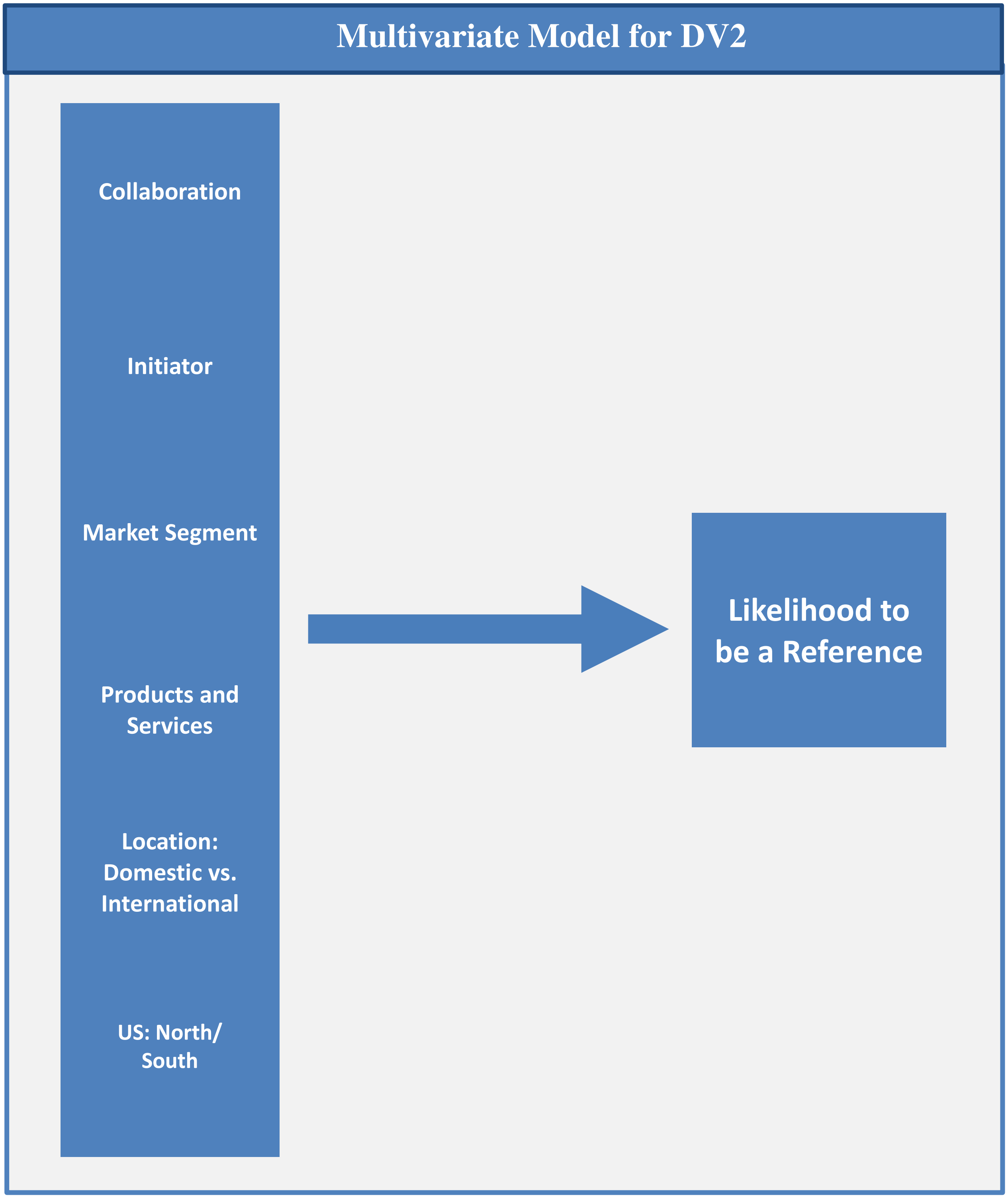

Multivariate Model for DV2
Collaboration
Initiator
Market Segment
Products and Services
Location: Domestic vs. International
US: North/ South
Likelihood to be a Reference

Figure 12: Multivariate Model, DV2

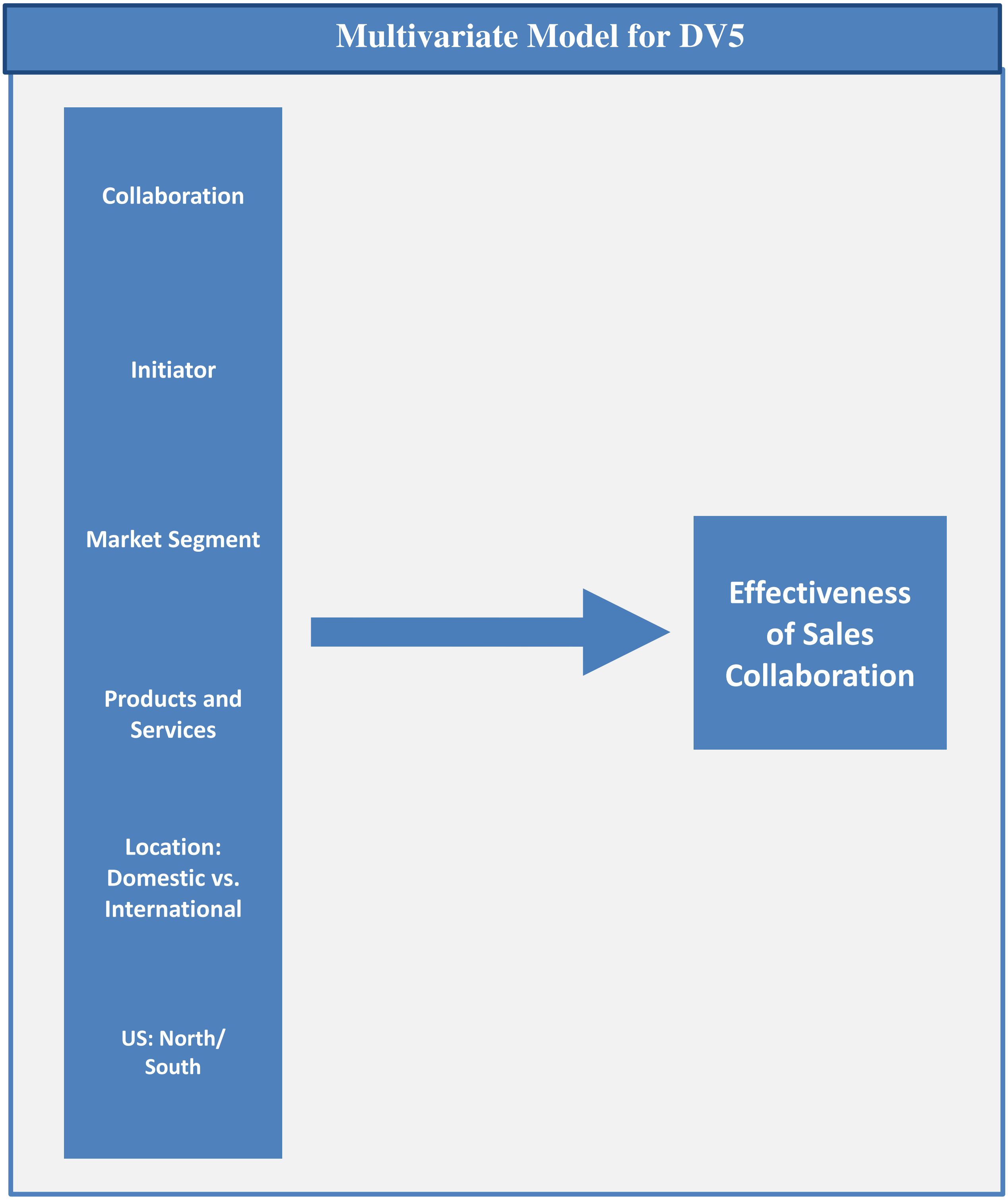

Multivariate Model for DV5
Collaboration
Initiator
Market Segment
Products and Services
Location: Domestic vs. International
US: North/ South
Effectiveness of Sales Collaboration

Figure 13: Multivariate Model, DV5

Scatter Plots. The next step in my exploration of the data was to find any relationships that might exist between each of the five DVs and six IVs. Scatter plots were drawn between individual DVs and IVs to help detect patterns in the relationships between variables. A total of 30 scatter plots (5 DVs × 6 IVs) were drawn (APPENDIX 4: B). The scatter plots showed a number of signals related to each potential pairwise (bivariate) relationship (Table 15). Overall, it appeared that a strong or weak relationship existed for most of the bivariate relationships; however, DV4 had the fewest moderate to strong relationships, and IV5 had the least propensity to show a relationship to the other dependent variables.

Table 15: Interpretation of the scatter plots

DV	IV	Potential Relationship?
DV1: Likelihood of Renewing Without RFP (if possible)	IV1: Collaboration	Yes - moderate
	IV2: Initiator	Yes - strong
	IV3: Market Segment	Yes - strong
	IV4: Products and Services	Yes - weak
	IV5: Location: Domestic versus International	No
	IV6. US Culture North/South	Yes -strong
DV2: Likelihood to be a Reference	IV1: Collaboration	Yes -moderate
	IV2: Initiator	Yes -moderate
	IV3: Market Segment	Yes -strong
	IV4: Products and Services	Yes -moderate
	IV5: Location: Domestic versus International	No
	IV6: US Culture North/South	Yes -moderate
DV3: Seller is Strategically Aligned with Buyer Company	IV1: Collaboration	Yes -strong
	IV2: Initiator	Yes -strong
	IV3: Market Segment	Yes -moderate
	IV4: Products and Services	Yes -moderate
	IV5: Location: Domestic versus International	No
	IV6: US Culture North/South	Yes -strong
DV4: Willingness to Include Seller in a Strategic Initiative	IV1: Collaboration	Yes -strong
	IV2: Initiator	No
	IV3: Market Segment	Yes -strong
	IV4: Products and Services	No
	IV5: Location: Domestic versus International	No
	IV6: US Culture North/South	Yes -strong

DV5: Effectiveness of Sales Collaboration	IV1: Collaboration	Yes -strong
	IV2: Initiator	Yes -strong
	IV3: Market Segment	Yes -strong
	IV4: Products and Services	Yes -strong
	IV5: Location: Domestic versus International	Yes -weak
	IV6: US Culture: North/South	Yes -strong

Simple Regression. Encouraged by these early results from the scatter plots, I continued my bivariate analysis by conducting regression analysis on the three continuous DVs (DV1, DV2 and DV5) and 6 IVs for a total of 18 continuous DV–IV relationships. The results are summarized below in Table 16,

*$p \leq .05$
**$.05 < p \leq .10$
*** $.10 < p \leq .15$

Table 17 & Table 18. Their relationships are modeled and summarized in Figure 14 and Figure 16. All relationships were statistically significant with the exception of DV2 with IVs 2 and 5.

Chi Square. I also performed Chi square analysis on the two categorical DVs (DV3 and DV4) and six IVs for a total of 12 categorical relationships. The results are summarized in Table 19 and

Table 20. Their relationships are modeled and summarized in Figure 15. All bivariate relationships were statistically significant, except for IV2 with DV4, IV4 with DV4, and IV5 with DVs 3 and 4.

Table 16: Bivariate Simple Regression with DV1 and IV1-IV6

Simple Regression #	Independent Variable	R² (%)	β	F	*p* value†
1	Collaboration	19.4	0.440	37.249	*.000
2	Initiator	3.1	Seller-initiated = .213 Buyer-initiated = .152 Equal partner = .088	2.403	*.034
3	Market Segment	6.2	Professional Services = –.213 Education = –.086 Transportation = –.076	2.889	*.008
4	Products & Services	10.2	Technology = .227 Food & Beverage = .203	3.066	*.002
5	Location: Domestic versus International	--	--	--	.183
6	US Culture: North/ South	2.2	–.149	4.787	*.015

†All *p* values have been multiplied by 0.5 because the values returned by the regression are two-tailed.

$*p \leq .05$
$**.05 < p \leq .10$
$*** .10 < p \leq .15$

Table 17: Bivariate Simple Regression w/ DV2 and IV1–IV6

Simple Regression #	Independent Variable	R^2 (%)	β	F	*p* value[†]
1	Collaboration	18.1	.426	36.36	*.000
2	Initiator	4.1	.238	3.427	*.009
3	Market Segment	5.7	–.204	2.873	*.008
4	Products & Services	7.6	.276	2.405	*.008
5	Location: Domestic versus International	--	--	.--	.417
6	US Culture: North/South	.9	–.094	2.029	**.078

[†] All *p* values have been multiplied by 0.5 because the values returned by the regression are two-tailed.

$*p \leq .05$

$**.05 < p \leq .10$

$*** .10 < p \leq .15$

Table 18: Bivariate Simple Regression with DV5, Effectiveness of Sales Collaboration, and IV1–IV6

Simple Regression #	Independent Variable	R² (%)	β	F	*p* value†
1	Collaboration	20.4	.451	42.451	*.000
2	Initiator	.1	Seller-initiated = .243 Buyer-initiated = .110 Equal partner = .079	3.501	*.008
3	Market Segment	5.7	Professional Services = –.212 Transportation = –.088 Manufacturing = –.074	2.934	*.007
4	Products & Services	8.0	Consulting & Professional Services = –.074 Food & Beverage Products & Services = .245 Technology = .163 Food Events & Facilities = –.073	2.583	*.005
5	Location: Domestic versus International	–	–	–	.225
6	US Culture: North/South	1.3	–.115	3.105	*.040

†All *p* values have been multiplied by 0.5 because the values returned by the regression are two-tailed.

$*p \leq .05$
$**.05 < p \leq .10$
$***\ .10 < p \leq .15$

Table 19: Chi-square test, DV3- Seller is Strategically Aligned with Buyer

Variable	Type	Test	$\mathcal{X}^2$	*p* value	Degrees of Freedom	Number
Collaboration	IV	Continuity Correction	245.26	*.000	1	265
Initiator	IV	Pearson $\mathcal{X}^2$	5.5	*.032	2	177
Market Segment	IV	Pearson $\mathcal{X}^2$	7.08	***.108	5	267
Product Type	IV	Pearson $\mathcal{X}^2$	12.172	***.102	9	267
Location: Domestic versus International	IV	Continuity Correction	--	.203	--	--
US: North/South	IV	Continuity Correction	8.098	*.003	1	254

*p ≤ .05
**.05 < p ≤ .10
*** .10 < p ≤ .15

Table 20: Chi-square test, DV4- Willingness to Include Seller in Strategic Initiative

Variable	Type	Test	$\mathcal{X}^2$	*p* value	Degrees of Freedom	Number
Collaboration	IV	Continuity Correction	6.721	*.039	1	170
Initiator	IV	Pearson $\mathcal{X}^2$	Not Significant	.194	2	168
Market Segment	IV	Pearson $\mathcal{X}^2$	9.28	**.049	5	260
Product Type	IV	Pearson $\mathcal{X}^2$	Not Significant	.300	8	260
Location: Domestic versus International	IV	Pearson $\mathcal{X}^2$	Not Significant	.261	1	260
US: North/South	IV	Pearson $\mathcal{X}^2$	6.194	*.007	1	249

*p ≤ .05
**.05 < p ≤ .10
*** .10 < p ≤ .15

Encouraged by the bivariate analysis, I performed multivariate analyses on Continuous DVs 1, 2 and 5. Above, Figure 11, Figure 12 and Figure 13 depict the models that discuss the relationships between variables assessed with multivariate analyses.

The results are summarized in Table 21,

Table 22 &Table 23. Their results are modeled and summarized in Figure 17, Figure 18 & Figure 19.

Table 21: Multivariate Hierarchical Regression: Likelihood to Renew

Variable	β	*p* value
Financial Services	β = –.415	****p* = .105
Retail	β = .263	**p* = .034
Collaboration (Yes)	β = .193	***p* = .078
Final Model (Steps 4 through 6) R² = 30.9%		**p* = .017

$*p \leq .05$
$**.05 < p \leq .10$
$*** .10 < p \leq .15$

Table 22: Multivariate Hierarchical Regression: Likelihood to Refer

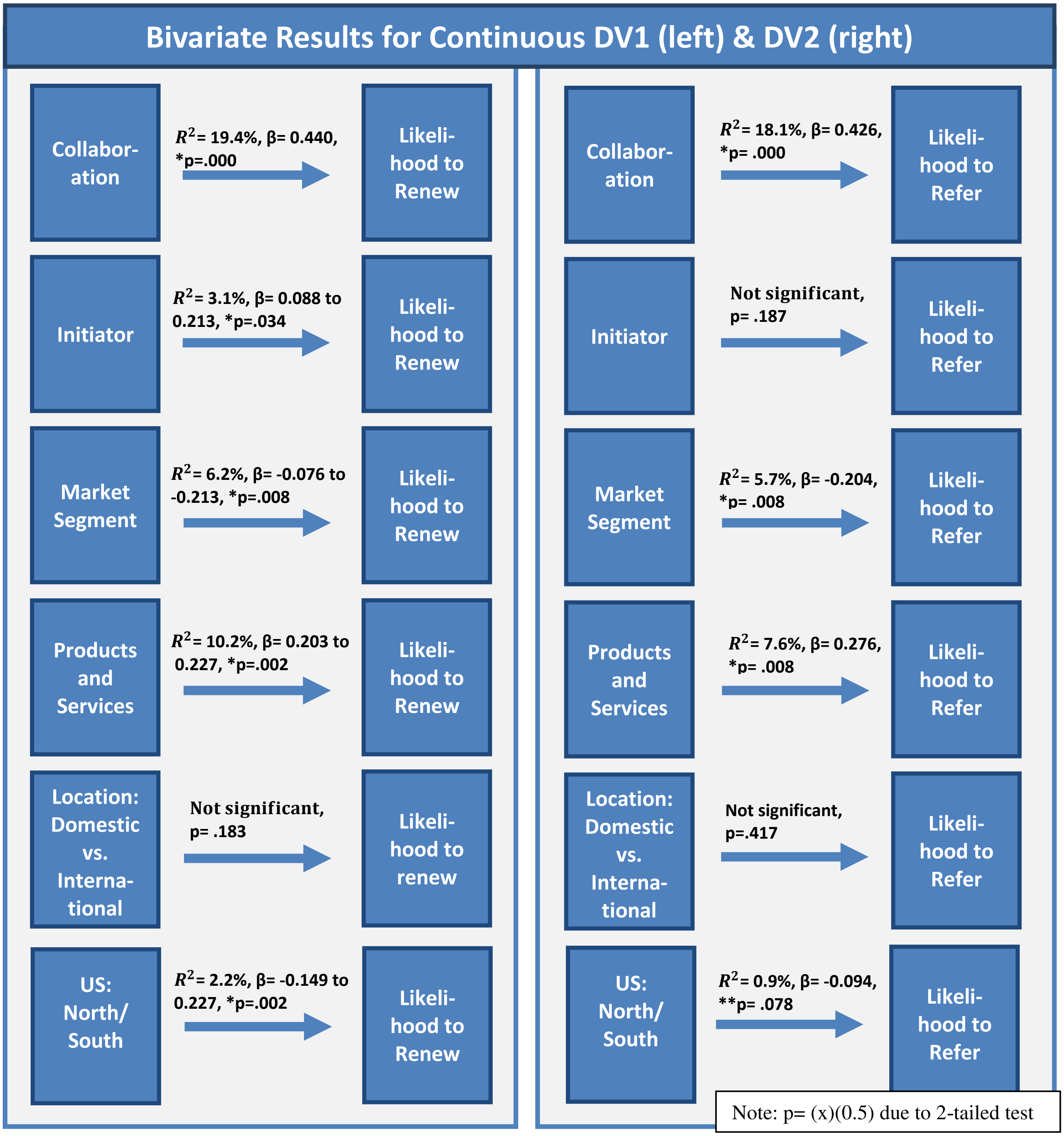
Variable	β	*p* value
Financial Services	β = –.403	***p* = .094
Collaboration (Yes)	β = .311	**p* = .002
Retail	β = .224	**p* = .031
Final Model (Steps 4 through 6) R² = 36.7%		**p* = .001

$^{*}p \leq .05$
$^{**}.05 < p \leq .10$
$^{***}\ .10 < p \leq .15$

Table 23: Multivariate Hierarchical Regression: Effectiveness of Sales Collaboration

Variable	β	*p* value
Financial Services	β = –.402	***p* = .096
Collaboration (Yes)	β = .271	**p* = .007
Retail	β = .229	**p* = .028
Final Model (Steps 4 through 6) R² = 35.4%		**p* = .001

$^{*}p \leq .05$
$^{**}.05 < p \leq .10$
$^{***}\ .10 < p \leq .15$


Bivariate Results for Continuous DV1 (left) & DV2 (right)
Collabor-ation
R^2= 19.4%, β= 0.440, *p=.000
Likeli-hood to Renew
Initiator
R^2= 3.1%, β= 0.088 to 0.213, *p=.034
Likeli-hood to Renew
Market Segment
R^2= 6.2%, β= -0.076 to -0.213, *p=.008
Likeli-hood to Renew
Products and Services
R^2= 10.2%, β= 0.203 to 0.227, *p=.002
Likeli-hood to Renew
Location: Domestic vs. Interna-tional
Not significant, p= .183
Likeli-hood to renew
US: North/ South
R^2= 2.2%, β= -0.149 to 0.227, *p=.002
Likeli-hood to Renew
Collabor-ation
R^2= 18.1%, β= 0.426, *p= .000
Likeli-hood to Refer
Initiator
Not significant, p= .187
Likeli-hood to Refer
Market Segment
R^2= 5.7%, β= -0.204, *p= .008
Likeli-hood to Refer
Products and Services
R^2= 7.6%, β= 0.276, *p= .008
Likeli-hood to Refer
Location: Domestic vs. Interna-tional
Not significant, p=.417
Likeli-hood to Refer
US: North/ South
R^2= 0.9%, β= -0.094, **p= .078
Likeli-hood to Refer
Note: p= (x)(0.5) due to 2-tailed test

*$p \leq .05$
**$.05 < p \leq .10$
*** $.10 < p \leq .15$

Figure 14: Regression results, DV1 and DV2

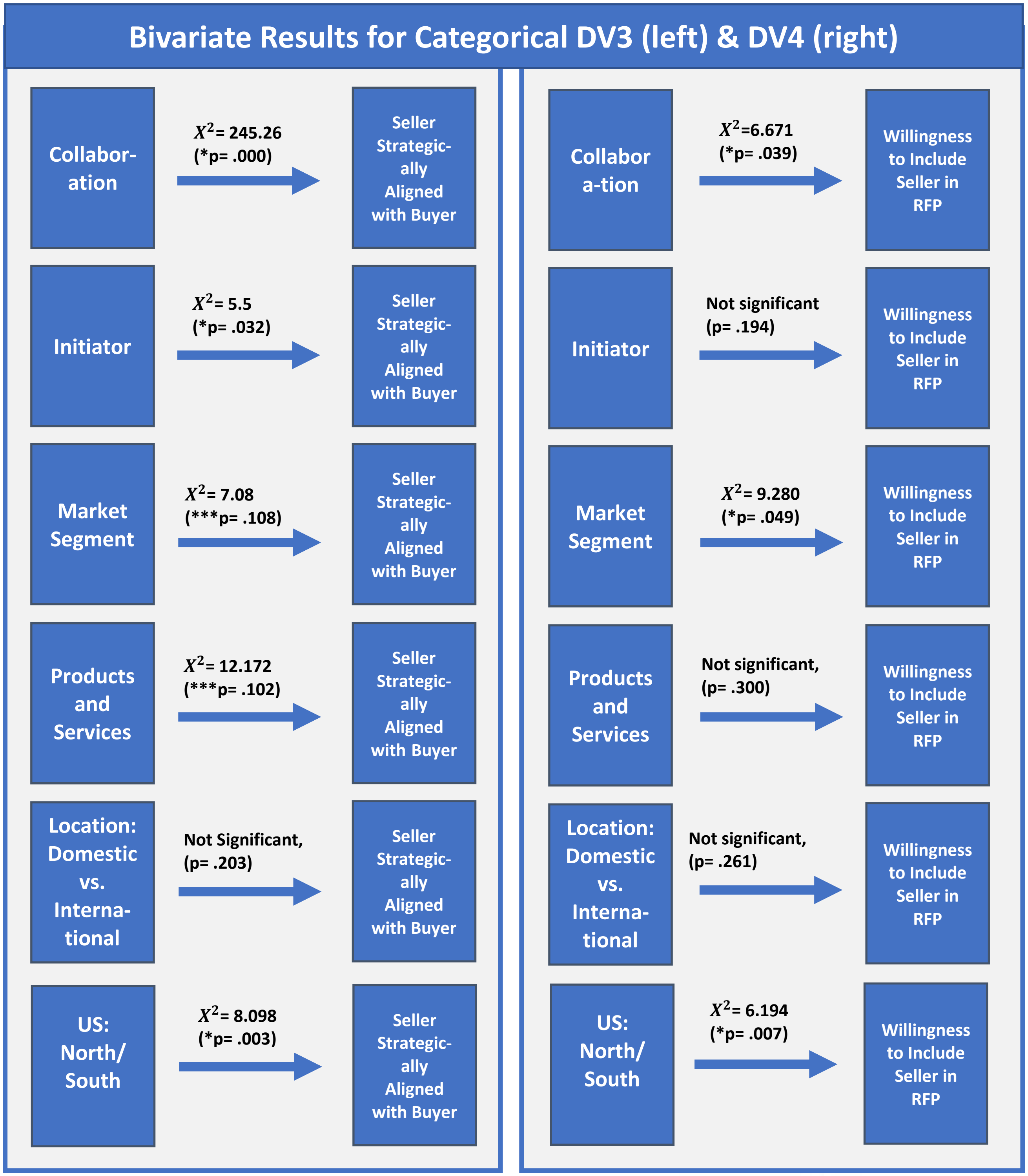

Bivariate Results for Categorical DV3 (left) & DV4 (right)
Collabor-ation
X^2= 245.26
(*p= .000)
Seller Strategic-ally Aligned with Buyer
Initiator
X^2= 5.5
(*p= .032)
Seller Strategic-ally Aligned with Buyer
Market Segment
X^2= 7.08
(***p= .108)
Seller Strategic-ally Aligned with Buyer
Products and Services
X^2= 12.172
(***p= .102)
Seller Strategic-ally Aligned with Buyer
Location: Domestic vs. Interna-tional
Not Significant,
(p= .203)
Seller Strategic-ally Aligned with Buyer
US: North/ South
X^2= 8.098
(*p= .003)
Seller Strategic-ally Aligned with Buyer
Collabora-tion
X^2=6.671
(*p= .039)
Willingness to Include Seller in RFP
Initiator
Not significant
(p= .194)
Willingness to Include Seller in RFP
Market Segment
X^2= 9.280
(*p= .049)
Willingness to Include Seller in RFP
Products and Services
Not significant,
(p= .300)
Willingness to Include Seller in RFP
Location: Domestic vs. Interna-tional
Not significant,
(p=.261)
Willingness to Include Seller in RFP
US: North/ South
X^2= 6.194
(*p= .007)
Willingness to Include Seller in RFP

Figure 15: Chi square results, DV3 and DV4

$*p \leq .05$

$**.05 < p \leq .10$

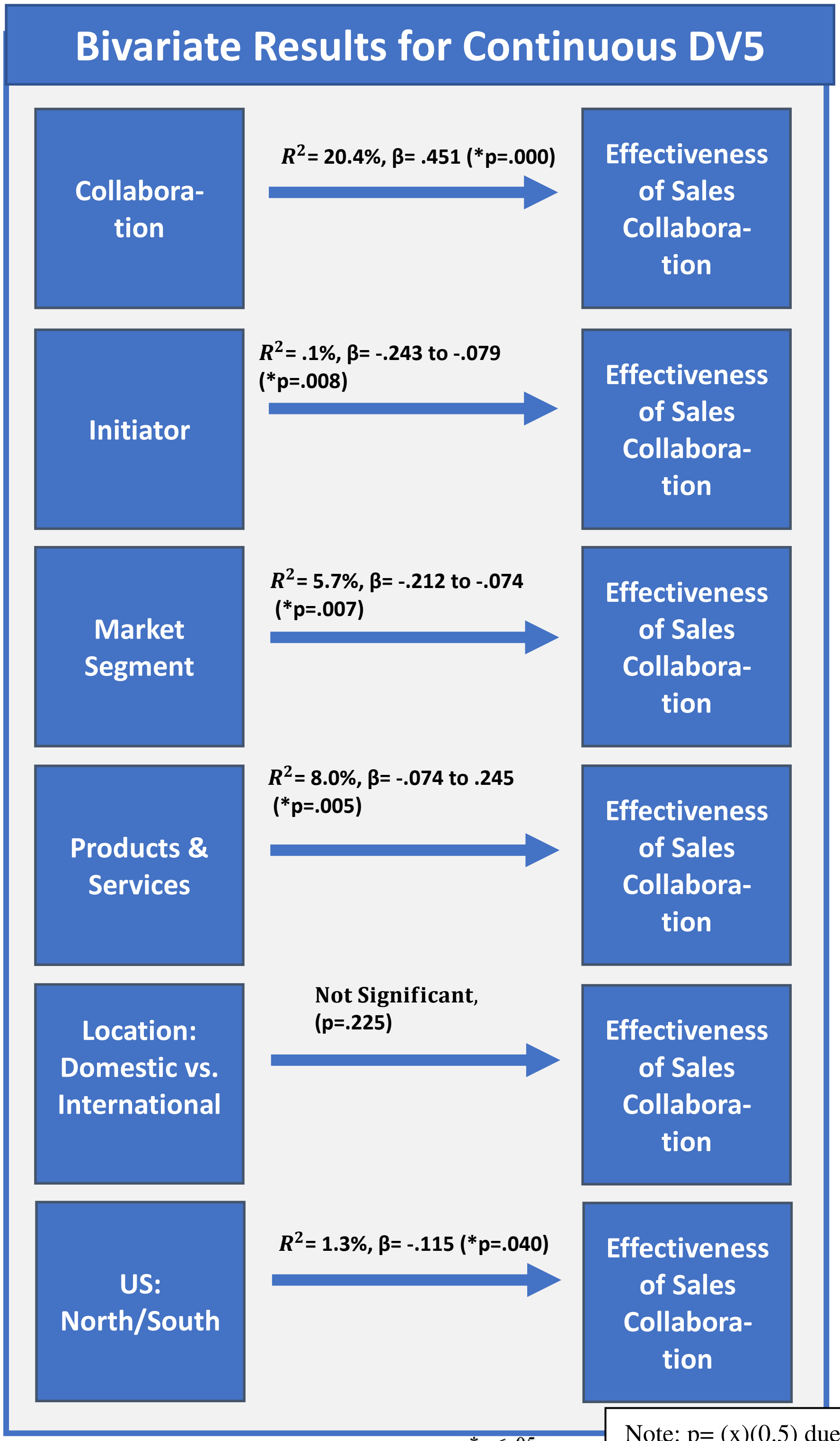
$***\ .10 < p \leq .15$

$**.05$

$< p \leq .10$

$***$

$.10 < p \leq .15$


Bivariate Results for Continuous DV5
Collabora-tion
R^2= 20.4%, β= .451 (*p=.000)
Effectiveness of Sales Collabora-tion
Initiator
R^2= .1%, β= -.243 to -.079 (*p=.008)
Effectiveness of Sales Collabora-tion
Market Segment
R^2= 5.7%, β= -.212 to -.074 (*p=.007)
Effectiveness of Sales Collabora-tion
Products & Services
R^2= 8.0%, β= -.074 to .245 (*p=.005)
Effectiveness of Sales Collabora-tion
Location: Domestic vs. International
Not Significant, (p=.225)
Effectiveness of Sales Collabora-tion
US: North/South
R^2= 1.3%, β= -.115 (*p=.040)
Effectiveness of Sales Collabora-tion

Note: p= (x)(0.5) due to 2-tailed test

$*p \leq .05$
$**.05 < p \leq .10$
$***\ .10 < p \leq .15$

Figure 16: Regression results, DV5

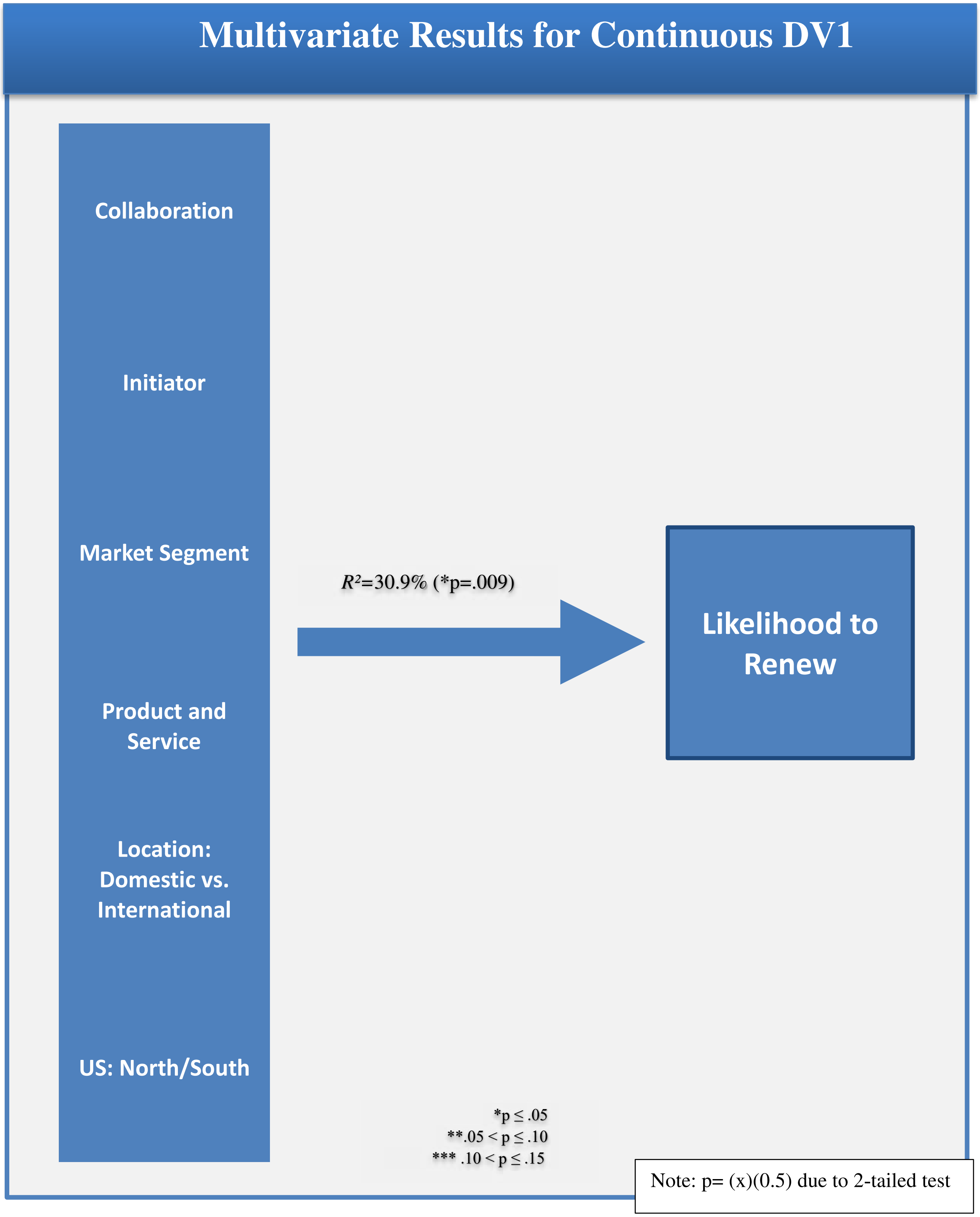

Multivariate Results for Continuous DV1
Collaboration
Initiator
Market Segment
Product and Service
Location: Domestic vs. International
US: North/South
R^2=30.9% (*p=.009)
Likelihood to Renew
*p ≤ .05
**.05 < p ≤ .10
*** .10 < p ≤ .15
Note: p= (x)(0.5) due to 2-tailed test

Figure 17: Hierarchical Multiple Regression, Likelihood to Renew

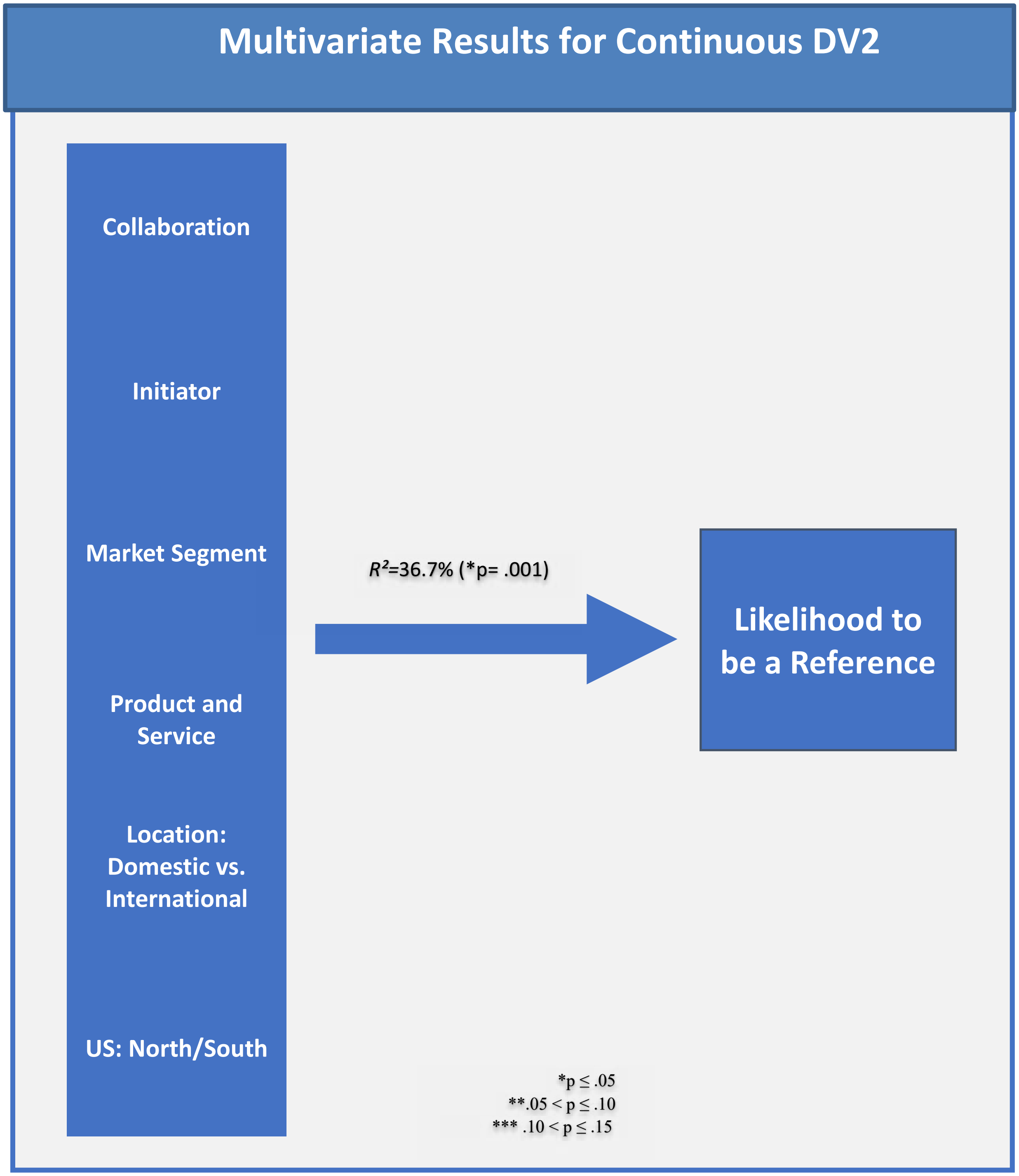
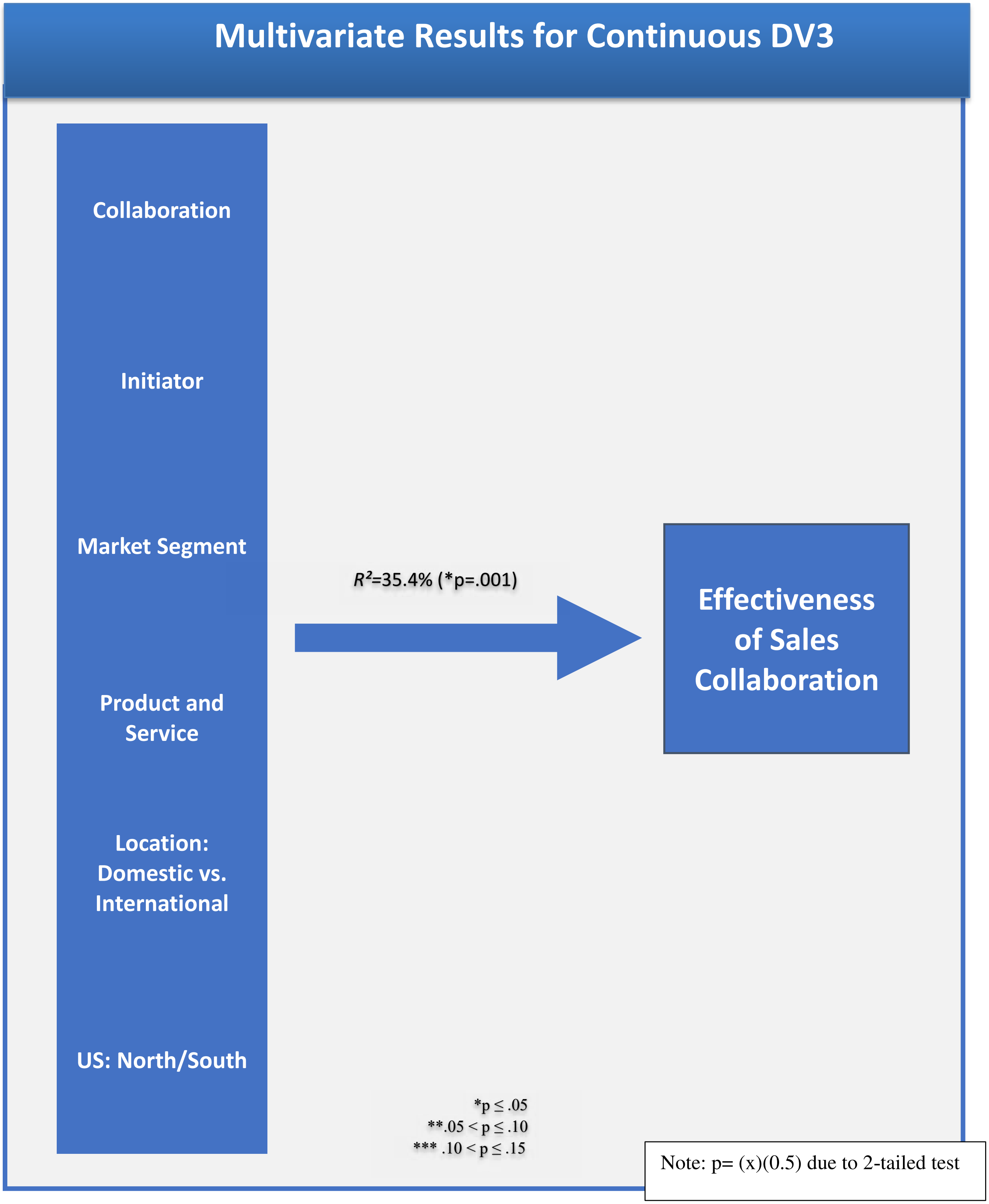

Multivariate Results for Continuous DV2
Collaboration
Initiator
Market Segment
Product and Service
Location: Domestic vs. International
US: North/South
R^2=36.7% (*p= .001)
Likelihood to be a Reference
*p ≤ .05
**.05 < p ≤ .10
*** .10 < p ≤ .15

Figure 18: Hierarchical Multiple Regression, Likelihood to be a Reference

Note: p= (x)(0.5) due to 2-tailed test


Multivariate Results for Continuous DV3
Collaboration
Initiator
Market Segment
Product and Service
Location: Domestic vs. International
US: North/South
R^2=35.4% (*p=.001)
Effectiveness of Sales Collaboration
*p ≤ .05
**.05 < p ≤ .10
*** .10 < p ≤ .15

Note: p= (x)(0.5) due to 2-tailed test

Figure 19: Hierarchical Multiple Regression, Effectiveness of Sales Collaboration

DVI: Likelihood to Refer

Note: all *p*-values in the regression analyses below have been multiplied by 0.5 because the values returned by the regression are two-tailed.

IV1: Collaboration

Simple regression analysis was used to evaluate whether interorganizational collaboration significantly influenced the likelihood of a buyer to renew a contract with the seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that collaboration explained 19.4% of the variance in the likelihood of a buyer to renew the contract with the seller ($R^2 = .194$, F(1, 155) = 37.249, **p* = .000). Compared to the response “No,” the existence of collaboration (a “Yes” rating) significantly increased the likelihood of the buyer renewing a contract with the seller (β = .440, **p* = .000). (Table 31, Table 32 & Table 33)

IV2: Initiator

Simple regression analysis was used to evaluate whether initiator type significantly influenced the likelihood of a buyer to renew a contract with the seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that initiator type explained 3.1% of the variance ($R^2 = .031$, F(3, 222) = 2.403, **p* = .034). The type of initiation was significantly predictive of the likelihood of a buyer to renew a contract with the seller: seller-initiated β = .213, **p* = .010; buyer-initiated β = .152, **p* = .030; and equal partner β = .088, ****p* = .103. (Table 34, Table 35 &

Table 36)

IV3: Market Segmentation

Simple regression analysis was used to evaluate whether market segment significantly influenced the likelihood of a buyer to renew a contract with the seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that market segment explained 6.2% of the variance ($R^2 = .062$, $F(5, 220) = 2.889$, $*p = .008$). Compared to the base ("Government"), the following market segments had significant predictive power for likelihood of a buyer to renew the contract with the seller: Professional Services ($\beta = –.213$, $*p = .001$); Education ($\beta = –.086$, $**p = .096$), Transportation ($\beta = –.076$, $***p = .123$). (Table 37, Table 38 & Table 39)

IV4: Products and Services

Simple regression analysis was used to evaluate whether product and service type significantly influenced the likelihood of a buyer to renew a contract with the seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that product and service type explained 10.2% of the variance ($R^2 = .102$, $F(8, 217) = 3.066$, $*p = .002$). Compared to the base, Technology ($\beta = .227$, $**p = .053$), and Food & Beverage ($\beta = .203$, $***p = .134$) were significant predictors of likelihood of a buyer to renew a contract with a seller. (Table 40, Table 41 & Table 42)

IV5: Location: Domestic/International

Simple regression analysis was used to evaluate whether location (domestic/international) significantly influenced the likelihood of a buyer to renew a contract with the seller company. The regression results indicated that location did not explain the likelihood of a buyer to renew a contract with the seller company. (Table 46, Table 47 & Table 48)

IV6: US Culture: North/South

Simple regression analysis was used to evaluate whether US culture (North/South) significantly influenced the likelihood of a buyer to renew a contract with the seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that US culture explained 2.2% of the variance ($R^2 = .022$, $F(1, 211) = 4.787$, $*p = .030$). Compared to the North, the South was a significant negative predictor of likelihood of a buyer to renew a contract with a seller ($\beta = -.149$, $*p = .015$). (Table 43, Table 44 & Table 45)

DV2: Likelihood to be a Reference

Note: all p-values in the regression analyses below have been multiplied by 0.5 because the values returned by the regression are two-tailed.

IV1: Collaboration

Simple regression was used to assess the ability of the existence of collaboration (“Yes,” “No,”) to influence the likelihood of the buyer to be a reference for a seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The results indicated that the existence of collaboration explained 18.1% of the variance (R^2 = .181, F(1, 164) = 36.36, *p = .000). Compared to the base ("no collaboration"), collaboration was significant: (β = .426, *p = .000). (Table 49, Table 50 & Table 51)

IV2: Initiator

Simple regression analysis was used to evaluate whether initiator type significantly influenced the likelihood of a buyer providing a reference for the seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that initiator type explained 4.1% of the variance (R^2 = .041, F(3, 238) = 3.427, *p = .009). Only one initiator type was significant: seller-initiated (β = .238, *p = .002). (Table 52, Table 53 & Table 54)

IV3: Market Segment

Simple regression was used to assess the ability of market segment type to influence the likelihood of the buyer to be a reference for a seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The results indicated that market segment type explained 5.7% of the variance (R^2 = .057, F(5, 236) = 2.873, *p = .008). Compared to the base ("Government"), the ability of "professional services" to predict likelihood of the buyer to be a reference was negative (β = –.204, *p = .001). (Table 55, Table 56 & Table 57)

IV4: Products & Services

Simple regression was used to assess the ability of product and service type to influence the likelihood of the buyer to be a reference for a seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that product and service type explained 7.6% of the variance ($R^2 = .076$, $F(8, 233) = 2.405$, $*p = .008$). Compared to the base ("General products and services"), "Food and beverage" was a significant predictor of likelihood to provide a reference ($\beta = .276$, $**p = .069$). (Table 58, Table 59 & Table 60)

IV5: Location: Domestic vs. International

Simple regression analysis was used to evaluate whether location (domestic/international) significantly influenced the likelihood of a buyer to be a reference for a seller company. The regression results indicated that location does not explain the likelihood of a buyer to be a reference for a seller company. (Table 64, Table 65 & Table 66)

IV6: US Culture: (North/South)

Simple regression analysis was used to evaluate whether US (North/South) significantly influenced the likelihood of a buyer to be a reference for a seller company. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that US (North/South) explained 0.9% of the variance ($R^2 = .009$, $F(1,228) = 2.029$, $**p = .078$). Compared to the base (north), the south was a significant negative predictor of likelihood of a buyer to be a reference for a seller company ($\beta = –.094$, $**p = .078$). (Table 61, Table 62 & Table 63)

DV3: Seller is Strategically Aligned with Buyer Company

Out of 431 total cases, 238 cases were identified as positive for Seller is Strategically Aligned with Buyer Company, 29 were identified as negative for Seller is Strategically Aligned with Buyer, and 164 lacked sufficient information to make a determination.

IV1: Collaboration

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between collaboration and a supplier’s strategic alignment with the buyer, X^2 (1, n = 265) = 245.26, *p = .000. (Table 84, Table 85 &

Table 86)

IV2: Initiator

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between initiator type and a supplier's strategic alignment with the buyer, X^2 (2, n = 177) = 5.5, *p = .032. (

Table **87**,

Table **88** & Table 89)

IV3: Market Segment

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between the market segment of the buyer and the supplier’s strategic alignment with the buyer, X^2 (5, n = 267) = 7.08, ****p* = .108. (Table 90, Table 91, &

Table 92)

IV4: Products & Services

A Chi-square test for independence (with Yates Continuity Correction) indicated a significant association between products and services and the supplier's strategic alignment with the buyer, X^2 (9, n = 267) = 12.172, ****p* =.102. (Table 93, Table 94 & Table 96)

IV5: Location: Domestic vs. International

A Chi-square test for independence (with Yates Continuity Correction) indicated no statistically significant association between location and a supplier's strategic alignment with the buyer, *p* = .203. (Table 99, Table 100 & Table 101)

IV6: US Culture (North/South)

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between US culture and a supplier's strategic alignment with the buyer, X^2 (1, n = 254) = 8.098, **p* = .002. (Table 96, Table 97 & Table 98)

DV4: Willingness to Include Seller in a Strategic Initiative

Out of 431 total cases, 251 cases were identified as positive for Willingness to Include Seller in a Strategic Initiative, 9 were identified as negative for Willingness to Include Seller in a Strategic Initiative, and 271 lacked sufficient information to make a determination.

IV1: Collaboration

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between collaboration and a buyer's willingness to include seller in a near-term RFP if one existed, X^2 (1, n = 170) = 6.721, *p = .039. (Table 103 & Table 104)

IV2: Initiator

A Chi-square test for independence (with Yates Continuity Correction) found no statistical significance in the association between initiator type and a buyer's willingness to include a seller in a near-term RFP if one exists, p = .194. (Table 105 & Table 106)

IV3: Market Segment

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between customer market segment and a buyer's willingness to include a seller in a near-term RFP if one existed, X^2 (5, n = 260) = 9.28, *p = .049. (Table 107, Table 108 & Table 109)

IV4: Products & Services

A Chi-square test for independence (with Yates Continuity Correction) found no statistical significance in the association between products and services and a buyer's willingness to include seller in a near-term RFP if one exists, p = .300. (Table 110, Table 111, Table 112, Table 113 & Table 114)

IV5: Location: Domestic vs. International

A Chi-square test for independence (with Yates Continuity Correction) found no statistical significance in the association between location and a buyer's willingness to include seller in a near-term RFP if one exists, $p = .261$. (Table 118, Table 119 & Table 120)

IV6: US Culture (North/South)

A Chi-square test for independence (with Yates Continuity Correction) indicated a statistically significant association between US culture (North/South) and a buyer's willingness to include seller in a near-term RFP if one exists, X^2 (1, n = 249) = 6.194, $*p = .007$. (Table 115, Table 116 & Table 117)

DV5: Effectiveness of Sales Collaboration

Out of 431 total cases, 394 cases were identified as positive for Effectiveness of Sales Collaboration, 35 were identified as negative for Effectiveness of Sales Collaboration, and two were undetermined because they lacked sufficient information to categorize the response and were therefore omitted.

IV1: Collaboration

Simple regression was used to assess the ability of the existence of collaboration ("Yes," "No,") to influence the effectiveness of sales collaboration. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The results indicated that the existence of collaboration explained 20.4% of the variance ($R^2 = .204$, F(1, 166) = 42.451, *p = .000). Compared to the base ("no collaboration"), collaboration was significant: (β = .451, *p = .000). (Table 67, Table 68 & Table 69)

IV2: Initiator

Simple regression analysis was used to evaluate whether initiator type significantly influenced the effectiveness of sales collaboration. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that initiator type explained .10% of the variance (R^2 = .001, F(3, 244) = 3.501, *p = .008). All three initiator types were significant: seller-initiated had the largest effect (β = .243, *p = .001); buyer-initiated followed (β = .110, ***p = .072) and equal partner had the least effect (β = .079, **p = .115). (Table 70, Table 71 & Table 72)

IV3: Market Segment

Simple regression was used to assess the ability of market segment type to influence the effectiveness of sales collaboration. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The results indicated that market segment type explained 5.7% of the variance (R^2 = .057, F(5, 242) = 2.934, *p = .007). Compared to the base ("Government"), there were three market segments of statistical significance (negative): Professional Services was the largest negative predictor (β = –.212, *p = .001), followed by Transportation (β = –.088, **p = .079) and Manufacturing at (β = –.074, ***p = .119). (Table 73, Table 74 & Table 75)

IV4: Products & Services

Simple regression was used to assess the ability of product and service type to influence the effectiveness of sales collaboration. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that product and service type explained 8.0% of the variance ($R^2 = .080$, $F(8, 239) = 2.583$, $*p = .005$). Compared to the base ("General Products & Services"), Food & Beverage had the largest positive effect of predicting the effectiveness of sales collaboration at ($\beta = .245$, $**p = .092$). The next largest positive predictor was Technology at ($\beta = .163$, ***p = .115). Consulting & Professional Services was the third positive predictor at ($\beta = .074$, $***p = .131$). Food, Events & Facilities was a negative predictor ($\beta = -.073$, $***p = .148$). (Table 76, Table 77 & Table 78)

IV5: Location: Domestic vs. International

Simple regression analysis was used to evaluate whether location (domestic/international) significantly influenced the effectiveness of sales collaboration. The regression results indicated that location was not a statistically significant indicator of the effectiveness of sales collaboration ($p = .225$). (Table 82 &

Table 83)

IV6: US Culture: (North/South)

Simple regression analysis was used to evaluate whether US (North/South) significantly influenced the effectiveness of sales collaboration. Preliminary analysis was performed to check the assumption of normality and test for multicollinearity and homoscedasticity. The regression results indicated that US culture (North/South) explained 1.3% of the variance ($R^2 = .013$, $F(1, 233) = 3.105$, $*p = .039$). Compared to the base (North), the South was a significant negative predictor of the effectiveness of sales collaboration ($\beta = -.115$, $**p = .039$). (Table 79, Table 80 & Table 81)

VII.3 Multivariate Analysis

Multivariate Hierarchical Regression: Likelihood to Renew

Each of the IVs, 1-6 [Collaboration, Initiator Type, Market Segment, Products & Services, Location (Domestic vs. International) and US (North/South)], were entered manually and in sequential order. The variance explained by the final model was 30.9%, $F(13, 65) = 2.238$, $*p = .009$, and only three IVs were statistically significant: Collaboration, Market Segment and Products and Services. (Table 24) The categories within the IVs which were statistically significant include: Financial Services, Retail, Technology and Collaboration (Yes), with Financial Services recording the strongest beta value ($\beta = -.415$, $B = -2.095$, $**p = .053$). The other statistically significant results include: Retail ($\beta = .263$, $B = 3.133$, $*p = .017$), Technology ($\beta = .213$, $B = 1.320$, $***\ p = .137$) and Collaboration (Yes) ($\beta = .193$, $B = 1.646$, $*p = .039$), all as predictors of Likelihood to Renew. The IVs that did not predict Likelihood to Renew were

Initiator (IV2), Location (Domestic vs. International) (IV5) and US North/South (IV6). The categories within the IVs which showed no statistical significance include: Equal Partner (β = .038, B = .253, *p* = .390); Seller (β = .120, B = .450 , *p* = .207); Buyer (β = .150, B = .670, *p* = .153); Manufacturing (β = .081 , B = .574, *p* = .297), Cleaning & Waste Services (β = -.120, B = -.851 , *p* = .256); Consulting & Professional Services (β = .035 , B = .593 , *p* = .383); Facilities (β = -.037, B = -.194 , *p* = .432); Food & Beverage (β = .083 , B = .314, *p* = .383) and Food, Events & Facilities (β = .108, B = 1.814, *p* = .185). (Table 121, Table 122 & Table 123)

Table 24:Hierarchical Regression IVs 1-6 to DV1

Hierarchical Regression DV1 (Likelihood to Renew)

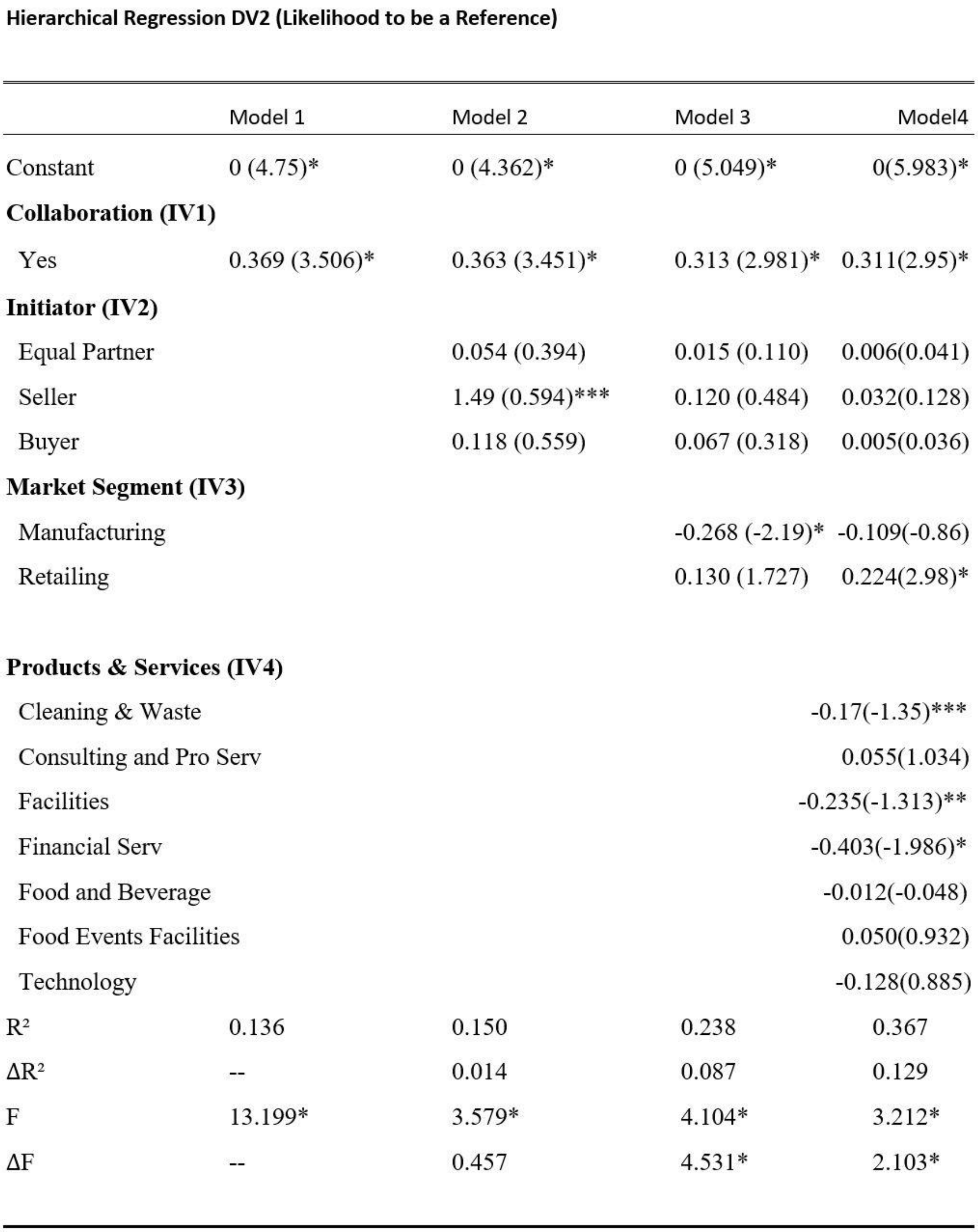
	Model 1	Model 2	Model 3	Model 4
Constant	0 (6.250)*	0 (5.584)*	0 (6.142)*	0 (6.091)*
Collaboration (IV1)				
Yes	0.221 (1.883)*	0.211 (1.803)*	0.172(1.471)**	0.193(1.646)*
Initiator (IV2)				
Equal Partner		0.110 (0.728)	0.069 (0.455)	0.038(0.253)
Seller		0.238 (0.890)**	0.201 (0.751)**	0.120(0.450)
Buyer		0.234 (1.047)*	0.180 (0.803)**	0.150(0.670)
Market Segment (IV3)				
Manufacturing			-0.223 (-1.576)*	0.081(0.574)
Retailing			0.085(1.012)	0.263(3.133)*
Products & Services (IV4)				
Cleaning & Waste				-0.12(-0.851)
Consulting and Pro Serv				0.035(0.593)
Facilities				-0.037(-0.194)
Financial Serv				-0.415(-2.095)*
Food and Beverage				-0.083(-0.314)
Food Events Facilities				0.108(1.814)
Technology				0.213(1.320)***
R^2	0.049	0.088	0.143	0.309
ΔR^2	--	0.039	0.055	0.167
F	3.937*	1.774***	1.997*	2.238*
ΔF	--	1.051	2.316**	2.238*

Multivariate Hierarchical Regression: Likelihood to Refer

Each of the IVs, 1-6 [Collaboration, Initiator Type, Market Segment, Products & Services, Location (Domestic vs. International) and US (North/South)], were entered manually and in sequential order. The variance explained by the final model was 36.7%, F(13, 72) = 3.212, *p = .001, and only 3 IVs were statistically significant: Collaboration, Market Segment and Products & Services. (

Table 25) The categories within the IVs which were statistically significant include: Financial Services, Collaboration (Yes), Facilities, and Retail, with Financial Services recording the strongest beta value (β = –.403, B = -1.986, **p* = .047), followed by Collaboration (β = .311, B = 2.957, **p* = .001), Facilities (β = -2.35, B = -1.313, ****p* = .126) and Retail (β = .224, B = 2.982, **p* = .015), all as predictors of Likelihood to Refer. Equal Partner (β = .006, B = .041, *p* = .482); Seller (β = .032, B = .128, *p* = .401); Buyer (β = .005, B = .026, *p* = .483); Manufacturing (β = -.109, B = -.858, *p* = .178); Cleaning & Waste Services (β = -.171, B = -1.348, *p* = .154); Consulting & Professional Services (β = .055, B = 1.034, *p* = .305); Food & Beverage (β = -.012, B = -.048, *p* = .482); Food, Events & Facilities (β = .050 , B = .932 , *p* = .324) and Technology (β = -.128, B = -.885, *p* = .234) were all found not statistically significant. (Table 124, Table 125 & Table 126)

Table 25:Hierarchical Regression IVs 1-6 to DV2



Hierarchical Regression DV2 (Likelihood to be a Reference)

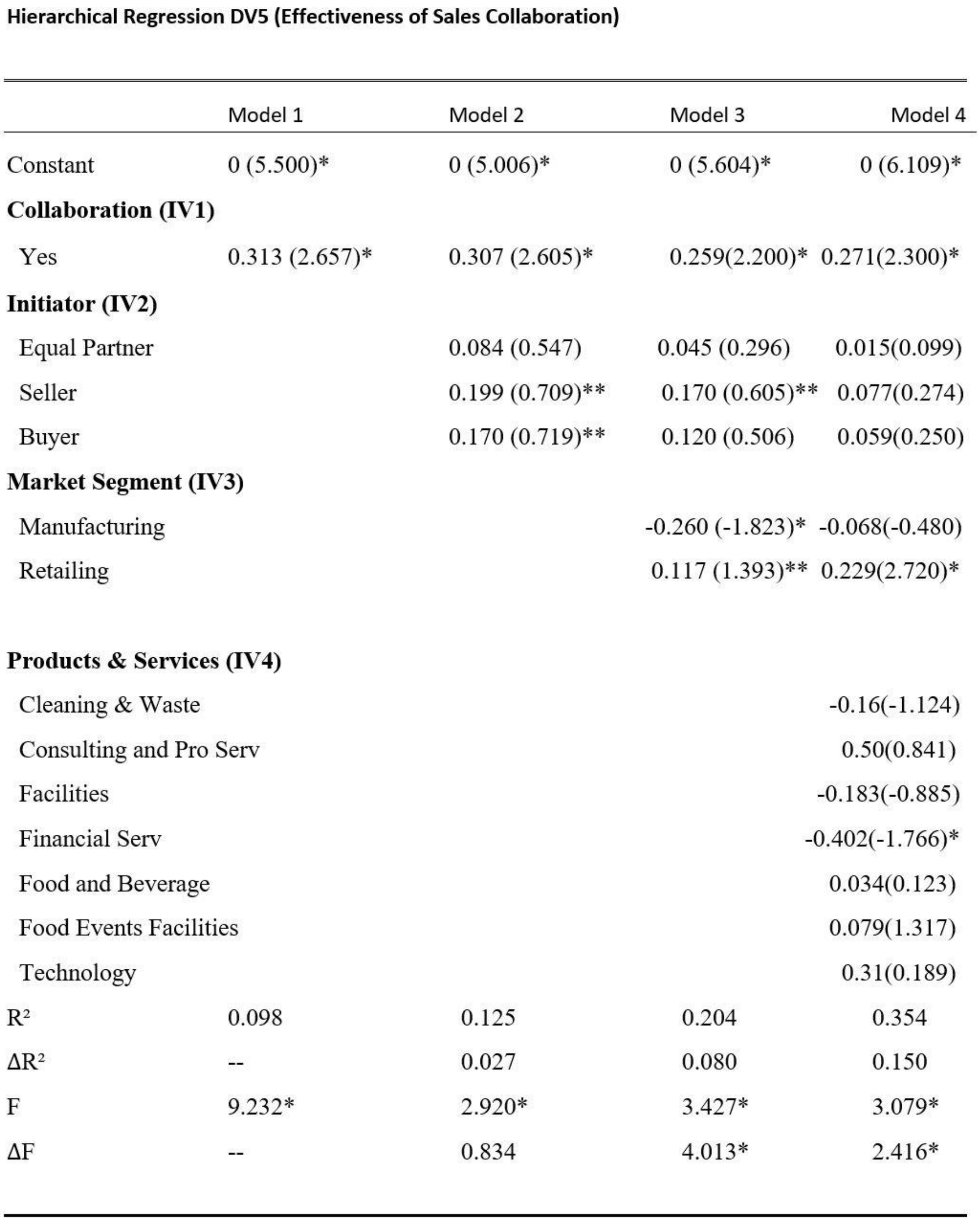
	Model 1	Model 2	Model 3	Model4
Constant	0 (4.75)*	0 (4.362)*	0 (5.049)*	0(5.983)*
Collaboration (IV1)				
Yes	0.369 (3.506)*	0.363 (3.451)*	0.313 (2.981)*	0.311(2.95)*
Initiator (IV2)				
Equal Partner		0.054 (0.394)	0.015 (0.110)	0.006(0.041)
Seller		1.49 (0.594)***	0.120 (0.484)	0.032(0.128)
Buyer		0.118 (0.559)	0.067 (0.318)	0.005(0.036)
Market Segment (IV3)				
Manufacturing			-0.268 (-2.19)*	-0.109(-0.86)
Retailing			0.130 (1.727)	0.224(2.98)*
Products & Services (IV4)				
Cleaning & Waste				-0.17(-1.35)***
Consulting and Pro Serv				0.055(1.034)
Facilities				-0.235(-1.313)**
Financial Serv				-0.403(-1.986)*
Food and Beverage				-0.012(-0.048)
Food Events Facilities				0.050(0.932)
Technology				-0.128(0.885)
R^2	0.136	0.150	0.238	0.367
ΔR^2	--	0.014	0.087	0.129
F	13.199*	3.579*	4.104*	3.212*
ΔF	--	0.457	4.531*	2.103*

Multivariate Hierarchical Regression: Effectiveness of Sales Collaboration

Each of the IVs, 1-6 [Collaboration, Initiator Type, Market Segment, Products & Services, Location (Domestic vs. International) and US (North/South)], were entered manually and in sequential order. The variance explained by the final model was 35.4%, F(13, 73) = 3.079, **p* = .001 and only 3 IVs were statistically significant: Collaboration, Market Segment and Products & Services. (

Table 26) The categories within the IVs which were statistically significant include: Financial Services, Collaboration (Yes) and Retail, with Financial Services recording the strongest beta value (β = –.402, B = -1.766, **p* = .034), followed by Collaboration (Yes) (β = .271, B = 2.300, **p* = .004), and Retail (β = .229, B = 2.720, **p* = .014), all as predictors of Effectiveness of Sales Collaboration. Equal Partner (β = .015, B = .099, *p* = .451); Seller (β = .077, B = .274, *p* = .273); Buyer (β = .059, B = .250, *p* = .320); Manufacturing (β = -.068, B = -.480, *p* = .282); Cleaning & Waste Services (β = -.160, B = -1.124, *p* = .171); Consulting & Professional Services (β = .050, B = .841, *p* = .321); Facilities (β = -.183 , B = -.885, *p* = .192); Food & Beverage (β = .034, B = .123, *p* = .449); Food, Events & Facilities (β = .079, B = 1.317, *p* = .236) and Technology (β = .031, B = .189, *p* = .431) were all found not statistically significant. (Table 127, Table 128 & Table 129)

Table 26:Hierarchical Regression IVs 1-6 to DV5



Hierarchical Regression DV5 (Effectiveness of Sales Collaboration)

	Model 1	Model 2	Model 3	Model 4
Constant	0 (5.500)*	0 (5.006)*	0 (5.604)*	0 (6.109)*
Collaboration (IV1)				
Yes	0.313 (2.657)*	0.307 (2.605)*	0.259(2.200)*	0.271(2.300)*
Initiator (IV2)				
Equal Partner		0.084 (0.547)	0.045 (0.296)	0.015(0.099)
Seller		0.199 (0.709)**	0.170 (0.605)**	0.077(0.274)
Buyer		0.170 (0.719)**	0.120 (0.506)	0.059(0.250)
Market Segment (IV3)				
Manufacturing			-0.260 (-1.823)*	-0.068(-0.480)
Retailing			0.117 (1.393)**	0.229(2.720)*
Products & Services (IV4)				
Cleaning & Waste				-0.16(-1.124)
Consulting and Pro Serv				0.50(0.841)
Facilities				-0.183(-0.885)
Financial Serv				-0.402(-1.766)*
Food and Beverage				0.034(0.123)
Food Events Facilities				0.079(1.317)
Technology				0.31(0.189)
R^2	0.098	0.125	0.204	0.354
ΔR^2	--	0.027	0.080	0.150
F	9.232*	2.920*	3.427*	3.079*
ΔF	--	0.834	4.013*	2.416*

VIII DISCUSSION

IV1: Collaboration

Recall from the results section that “Collaboration” was a statistically significant *predictor* of: 1) the likelihood of a buyer to renew a seller’s contract without issuing an RFP if the supplier had the authority to do so (“Likelihood to Renew,” DV1); 2) a manager or senior executive in a buying firm to be likely to refer the supplier to a peer both internally and externally (“Likelihood to Refer,” DV2); and 3) the “Effectiveness of Sales Collaboration” (DV5). Also recall that a statistically significant *relationship* existed between “Collaboration” and 1) the strategic alignment of the seller as perceived by the buyer (“Buyer-Seller Strategic Alignment,” DV3); and 2) the willingness of the buyer to include the seller in a near-term RFP if one existed (“Willingness to Include in an RFP,” DV4).

Per the literature and my personal experience, collaboration was expected to be a significant predictor of a buyer’s likelihood to renew. Likelihood to renew is an indication of repurchase intention, and emerging literature discusses a buyer’s likelihood to renew as a form of behavioral loyalty. This study confirms the established research on collaboration (Merz, Zarantonello, & Grappi, 2018) and indicates that suppliers and salespeople should engage in dialog that leads to problem-solving activities and value creation. This is significant for the sales practitioner in that it highlights activities that can lead to repurchase decisions. It also complements the emerging research on B2B sales collaboration.

When sellers engage in activities that are associated with problem solving, increasing buyer productivity and efficiency, reducing resource waste, or attempting to create a competitive advantage (collaborative behaviors), buyers are also more likely to provide a reference for the seller, compared to buyers involved in non-collaborative relationships with suppliers. These results provide additional confirmation that collaboration matters. Likelihood to provide a reference is an example of attitudinal loyalty. This should be of significant interest to practitioners, who may underutilize word-of-mouth promotion. Word-of-mouth research continues to develop in the marketplace of large B2B sales; such efforts can shed light on the potential impact of word of mouth on this market.

The existence of collaborative behaviors was a significant indicator of sales effectiveness in terms of a buyer's likelihood to *both* renew a proposal without an RFP and to provide a reference. Consistent with corporate practice, academic research in the sales domain has often used objective and subjective measures to evaluate performance (Avila, Fern and Man, 2013). Qualitative and quantitative analysis of the interview data suggest that collaboration (problem solving and value creation) enhances a supplier's effectiveness at selling in the B2B space. This is one of the first studies to measure the impact of sales collaboration and the effective use of engaged problem solving and value creation. Wagner et al. (2010) found that customer firms only perceive value creation as a benefit:

> if they appropriate a larger slice of the bigger value pie (p. 840).

In contrast to Wagner et al. (2010), the current study found that customers embraced sales collaboration if the seller was engaged in problem solving or value creation, irrespective of whether the customer received a disproportionate appropriation of value. This study extends the collaboration work of Samaddar & Kadiyala (2006), Vargo & Lusch (2004) and Prahalad & Ramaswamy (2004) and provides new insights in the areas of sales and marketing. These findings suggest that suppliers should focus proposals on collaboration-based activities.

Buyers speak to the importance of problem solving, as in the following examples from an IT manufacturer (Company 22) and a communications company (Company 21):

> In terms of their level of support for the products, they are heads and shoulders above the other vendors. They get problems resolved (Enterprise Architect and Project Manager, "Buying Co. #22").
>
> They did that when they brought proposals forward for things like [product]. They did that, because they have a very good understanding of our environment and the challenges we face. So, they brought up [product] and brought in people that could talk to the various layers of our organization and explain why [product] would be a viable solution for us and why it was a potential fit (Enterprise Architect, "Buying Co. #21").

Helping a buyer to increase their productivity is also highly valuable, as noted by the following purchaser from a staffing company:

> So in a sense, they are exceeding our expectations not against hard requirements, but by being able to sustain the performance over years. I think that's impressive. A great example of that is that they have dropped turnover of the front line people from 50% a year to about 5% to 7% a year, which is excellent in a high pressure and high stress environment (VP Support Services, "Buying Co. #72").

An example of a supplier helping a customer to improve efficiency is provided by the following buyer from a medical instruments company:

> And on top of that, they put a system in place that streamlined everything we are doing, provided accountability, JCHO … regulatory assurances and requirements … to make sure we were in compliance, and do a 'damn good job' of the work that they do on a day to day basis Executive Director, "Buying Co. #58").

Waste reduction is an area in which suppliers can often provide significant value for their customers, as noted by a medical instruments company buyer (Company 58) and an Internet services provider (Company 42):

> We started out in a situation where we were spending $10.5 million a year in managing our clinical equipment here on campus, and even with all the growth we have had over the number of years they have been here managing … since 2000 … so about six years … we are still only back up to about $8.2 million. Literally in

> those six years they have probably saved us $25 million (Executive Director, “Buying Co. #58”).
>
> Sure. For example, it is typical to change out the lights in a deck every six years, but they said that instead of doing that, we could spend a little more and convert everything to LEDs, which will save a lot of energy, something we deeply care about of course as we are trying to be as sustainable as we can, but also it would save us money in the long-run. And they make a lot of smaller suggestions all of the time (President and CEO, “Buying Co. #42”).

An example of a seller helping to create a competitive advantage for a customer is provided by the following buyer from a cellular and data service provider:

> So, I think they have done a great job to make sure we are staying engaged and aware of what is happening in the open-source community and recommending process improvements that we can implement (IT Director, “Buying Co. #6”).

These results have significant practical implications as to the importance of collaboration. The fact that the over-preponderance of sellers were engaged in collaboration confirms that many practitioners are doing a good job in this regard. They need to continue doing so. The results show that these behaviors are not a waste of time and resources; they are valued in the market:

> [B]usiness marketing research has placed greater emphasis on creating customer value as a path for building a highly satisfied and loyal customer base (Blocker, Cannon, Panagopoulos, & Sager, 2012, p. 15).

As noted above, a relationship exists between collaboration and the perceived strategic alignment of the seller with the buyer. A further look into the results suggested that 89% of all relationships were collaborative. Due to the high dollar amount, the complexity of the sales deals and the length of time required for the sales transactions to be executed, I would expect that most of these relationships would have been collaborative. Only one case that was non-collaborative was found to be strategically aligned with the buyer. These insights are important for sales practitioners and provide positive proof of the importance of engaging in collaborative behaviors when strategic alignment with the buyer is sought. This confirms the extant literature on collaboration in marketing, new product development and organizational behavior, while expanding it into the sales domain.

Considering that collaboration was a predictor of a buyer's likelihood to renew, it was not surprising to find a relationship between collaboration and "Willingness to Include in an RFP." Willingness to include in an RFP implies that the perceived performance of the seller was satisfactory to the extent that the seller would be considered for an upcoming RFP. Although willingness to include in an RFP is not as definitive or strong an indicator of buyer loyalty as likelihood to renew, it captures informants who did not have the ability to renew the contract without issuing an RFP. Had this study used primary data, it may have been interesting to ask those who did not have the ability to renew if they would have, if that had been an option. This is one of the limitations of this study, which used an opportunistic sample, and may be an interesting area for future research on collaboration.

IV2: Initiator Type

Recall from the results section that "Initiator Type" was a statistically significant *predictor* of a buyer's likelihood to renew (DV1) and a buyer's likelihood to refer (DV2), and the effectiveness of sales collaboration (DV5). In addition, there was a significant *relationship* between initiator type and buyer-seller strategic alignment (DV3).

All three initiator types—buyer, seller, equal partner—were found to predict the likelihood to renew, which represents behavioral loyalty. The seller as initiator was the largest predictor, followed by the buyer, and lastly equal partner. This suggests that suppliers and salespeople who initiate one or more of the following behaviors: problem solving, increasing buyer productivity and efficiency, reducing resource waste, or attempting to create a competitive advantage, are more likely to have their contracts renewed. Practitioners who seek to maintain and grow market share with existing customers should exhibit at least one of these initiating "collaborative behaviors." Some might argue that as long as collaboration takes place, the buyer's perception of who initiated the collaborative behaviors does not matter. The current study revealed that initiation of collaboration by the seller has a significant positive impact on a buyer's likelihood to renew, i.e., is a meaningful predictor of repurchase intentions. That finding sheds new light on the importance of initiator type in B2B sales collaboration, confirming and building on O'Hern and Rindfleish's (2010) claim that initiator type matters, by showing *why* and *how* it matters. The finding expands our understanding of the integral role of initiator type in collaborative B2B sales and presents a novel opportunity for a new stream of research.

The results further indicated that "Seller" was the only initiator type to be a significant predictor of likelihood to refer. Research suggests that word-of-mouth references can be a persuasive tool to promote a seller's product to additional customers. Normally, sellers use their product and industry knowledge and their understanding of the market, coupled with the customer's wants and needs, to craft a well-defined, persuasive case to convince buyers to select their product. However, research shows that word of mouth is far more effective than a salesperson's own claims about a product. Incorporating a customer reference into the sales armamentarium will help sellers to be more effective. The current study highlights the buyer's likelihood of using word of mouth to discuss the seller's performance, a tool that has been underutilized by sellers and researchers alike. In my experience, practitioners do not regularly ask buyers for a reference, and in reality, this is a huge lost opportunity to drive influence and expand sales. For researchers, it provides an opportunity to measure the impact that word of mouth references can provide.

Given that both the bivariate relationship with the likelihood to renew and likelihood to refer were positively associated with seller initiation of collaboration, it was not surprising that the combined measure, effectiveness of sales collaboration, was also positively associated with seller initiation. Although all three initiator types were significant positive predictors of the effectiveness of sales collaboration, seller initiated was the largest predictor, with more than a two-fold greater positive impact compared to buyer or equal partner. Although the sales, marketing and new product development literature has discussed initiator type as being an important aspect of collaboration and value co-creation (OHern & Rindfleisch, 2010; Prahalad & Ramaswamy, 2004; S. Samaddar & S. S. Kadiyala, 2006; Wotruba, 1991), to my knowledge, this is the first study to validate the important effect of initiator type on sales outcomes, and to explain *why* it is important. This research has confirmed that seller initiation leads to positive outcomes for both buyer and seller, and therefore contributes new knowledge to the domains of B2B sales collaboration.

The establishment of a correlation between buyer–seller strategic alignment and initiator type is an important finding. Research in the strategy domain suggests that buyers and sellers who are strategically aligned have a greater propensity to drive value creation over the long term. This implies benefits to both buyers and sellers. The existence of an established relationship involves a modus operandi—a means of conducting business, with systems and processes in place that, for example, avoid the need to create new vendor agreements and contracting terms, thus reducing the expense of legal and processing resources. Both parties in such a relationship also have key contacts in place. Established relationships enable greater efficiency of time and resource use. Buyers do not need to review other sellers' offerings, thereby reducing opportunity costs (Ulaga, 2003).

IV3: Market Segment

The education and transportation market segments, in relation to the constant, government, were statistically significant indicators of performance. However, the impact of either education or transportation was much smaller than that of the government segment in predicting the likelihood to renew (DV1). In addition, I would have intuited that government would have been only moderately associated with likelihood to renew. Government proposals normally require an RFP for items over a given dollar value. However, once a supplier is in the system, further RFPs may not be required. Government proposals are also intermediate in terms of customization. However, the results showed that once a supplier earned a contract with the government, most players in the government space perceived the buyer to be strategically aligned (DV3). This suggests that doing business with government may be an advantageous approach for suppliers. It appears that it is easier to establish a strategic alliance and to obtain a renewed contract without initiating an RFP once a supplier is established with a government entity, as government buyers are less likely to require an RFP-based rebid from established suppliers. The finding that the government market segment is less likely to issue an RFP when an incumbent is involved is a unique finding that should be of interest to suppliers and salespeople.

My results showed that buyers' market segment was a statistically significant predictor of a buyer firm executive being likely to provide a reference for the seller. All market segments were associated with a positive likelihood to provide a reference. However, the relationship was largest for the government segment (the base for the analysis). A further review suggested that transportation, manufacturing and professional services were much lower predictors of the likelihood of a buyer to refer the seller compared to government; suppliers in these market segments may thus be significantly less able to leverage relationships with buyers using word of mouth.

The negative correlation (compared to government) between transportation and manufacturing and likelihood of a buyer to provide a reference for the seller may be because these segments may be viewed as commodity-oriented market segments. Commodities are generally not well branded; they are likely to fulfill an RFP, often serving as ingredients or raw materials that go into a final branded product. Commodity-based segments are more focused on price compared to customizable products and services. In contrast, I would have expected professional services to be positively related to likelihood of a buyer to provide a reference for the seller because professional services are highly customizable, and thus should lend themselves to collaboration. This makes a significant contribution to practice as it sheds new light on which industries are more likely or less likely to benefit from the trickle-down impact of references from buyers.

Market segment was a positive predictor of the effectiveness of sales collaboration. Further, transportation and manufacturing were statistically and negatively associated with the base, government, which indicates that these commodity segments may have less impact on effective sales collaboration. However, MacDonald et al. (2016) note that in markets that are becoming commoditized, providing additional solutions that complement the product can provide a source of competitive advantage to sellers.

A statistically significant relationship was found between market segments and the perceived strategic alignment between a buyer and seller and the buyer's willingness to include the seller in a near-term RFP. These results suggest that the market segments to which suppliers sell make a difference in B2B sales. The mixed results for market segment show that the value of engaging in interorganizational collaboration may not be generalizable across all customer market segments, which contradicts statements that focusing on value creation for customers will globally enhance competitive advantage (Wang, Liang, & Joonas, 2009).

IV4: Products and Services

Recall from the results section that "Products and Services" was a statistically significant *predictor* of a buyer's likelihood to renew (DV1), a buyer's likelihood to refer (DV2), and the effectiveness of sales collaboration (DV5). In addition, there was a significant *relationship* between products and services and buyer-seller strategic alignment (DV3).

The results indicated that Food & Beverage and Technology had a statistically significant effect on the likelihood to renew, with Technology having the stronger effect. Consulting and Professional Services and Food & Beverage were statistically significant predictors of the likelihood to refer, with Food & Beverage having the stronger effect.

In the combination performance variable, effectiveness of sales collaboration, four product areas were statistically significant: Food & Beverage; Technology; Consulting; and Food, Events, & Facilities, with the Technology and Food & Beverage categories being the largest contributors to the effectiveness of sales collaboration. These findings suggest that there is a meaningful relationship between products and services and the effectiveness of sales collaboration. This is especially true for products and services that are highly customizable, such as Technology, Consulting & Professional Services, and Food & Beverage.

Products and services that are more customizable are more conducive to differentiation through branding. Therefore, I would anticipate that such branded products and services would be more amenable to tailoring to the buyer, and thus may more easily inspire attitudinal loyalty.

IV5: Location: Domestic vs. International

No relationship was found between location and the likelihood to renew (DV1), or the likelihood to refer (DV2), and there was no significant effect of location on the effectiveness of sales collaboration (DV5). No relationship was found between location and buyer-seller strategic alignment (DV3) or a buyer's willingness to include the seller in a near-term RFP, if relevant (DV4).

Based on these results it appears that international sellers have a greater propensity to have their contracts renewed than domestic sellers (US based). However, caution should be used in interpreting the results for IV6 due to the limited number of international cases (15) compared to domestic cases (416). This is an opportunity for further research as it indicates that B2B selling practices vary among countries.

IV6: US Culture (North/South)

There was an approximately even split in the number of cases between South (201) and North (215). Recall that the culture (North/South) of the selling situation was a statistically significant *predictor* of a buyer's likelihood to renew (DV1), a buyer's likelihood to refer (DV2), and the effectiveness of sales collaboration (DV5). In addition, there was a significant *relationship* between culture and buyer-seller strategic alignment (DV3) and a buyer's willingness to include the seller in a near-term RFP, if relevant (DV4). Location in the South was statistically significant negative predictor of all three continuous measures of performance (DV1, DV2 and DV5).

The results also revealed a statistically significant relationship between culture and the strategic alignment of the seller to the buyer and the buyer's willingness to include the seller in a near-term RFP. Although various researchers have examined differences in B2B dynamics between countries (Ahn et al., 2017; Chwen et al., 2006; Dina Ribbink, 2014; Graca et al., 2017), few studies have examined how cultural differences between the North and the South may affect B2B relationships in the US.

In practice, I have observed that business is done differently in the North versus the South. In the North, people tend to want you get to the point, to tell them what you have and to not waste their time. In contrast, in the South, people tend to seek to establish personal connections. To illustrate, in the North, buyers often respond to a greeting of "How are you today?" with "What do you have for me today?" It is common for northern buyers to prefer to dispense with the pleasantries and get down to business. With a buyer in the South, it is customary and expected that the parties will get to know one another before deciding to do business. One's history is important. Typical questions that may be asked of the seller would include inquiries about their training and background, about their family, where they went to school, and what they like to do outside of work.

These findings were the reverse of what I would have anticipated; I would have expected collaboration to be more strongly associated with the South than with the North. Therefore, I re-examined my coding schema to ensure that each case was coded properly as either North or

South. I next reviewed the literature to determine whether other studies supported this finding; I did not find any studies that either supported or rejected my expectations. I then considered that some of the differences between the expected and actual findings might be explained by ticket price (price of the RFP). My hunch was that price may have influenced how northern versus southern deals behaved. To explore this, I first needed to determine whether there was a correlation between the size of the deal and DVs 1, 2, and 5. If there was a correlation between size of the deal and likelihood to refer, to renew, or the effectiveness of sales collaboration, I would then perform multiple regression. If there was no correlation, my hunch was not supported. I then performed simple regression to understand the relationship between DV1 and the size of the deal, and DV2 and the size of the deal. The results of that analysis showed no statistically significant differences in likelihood to renew or to refer according to the size of the deal (Appendix 5). Therefore, I did not further pursue whether differences between North and South were related to the size of the deal.

In this paper, I have defined collaboration as problem solving and value creation. I would intuit that by this definition, both parties, the buyer and the seller, are more task-oriented, with less time spent on non-value-add discussions such as personal conversations; therefore, the parties may be able to be more effective. Conversely, much of the sales literature suggests that striking a personal connection will help to drive sales. Additional studies should be conducted to evaluate how these relationships manifest.

DV1: Likelihood to Renew

Recall that independent variables 1 through 5 (Collaboration, Initiator, Market Segment, Products and Services, and US Culture (North/South) were positively associated with

"Likelihood to Renew," which is a meaningful predictor of repurchase intentions and an example of behavioral loyalty. The finding that collaborative behaviors are associated with increased likelihood to renew is important for practitioners who seek to maintain and grow market share with existing customers. Behavioral loyalty is illustrated in the following examples from industrial buyers whose interviews were included in the secondary data set:

> We always just renew (SVP, Banking Institution, "Buying Co. #362").
>
> I have renewed with XYZ supplier 4 times already and would do it again the 5th time (Director of Operations, Public School District, "Buying Co. # 177").
>
> I would love to renew with 'supplier' because it's easy (Finance Leader, Public School District, "Buying Co. #213").

Although repurchase intentions may appear on the surface to indicate that the supplier's account with the buyer is secure, these accounts may actually be vulnerable. Repurchase intentions may be driven by habit rather than by a purchaser's choice of the best solution. Buyers may renew because it is more convenient to do so, rather than out of a commitment to the supplier. Potential vulnerability on the part of buyers whose accounts were being renewed is illustrated in the following statements from buyers:

> I don't think we have a choice for the time being. We need the support (Engineering Manager, Large Internet Company, "Buying Co. #23").
>
> [Here, buyer is referring to the rating scale of 1 to 10, where 10 is highest] It's not a 10, but not a 1, and changing is not easy, so I would probably [rate them] an 8 (CEO, Banking Institution, "Buying Co. #380").
>
> As bad as it sounds, it is the devil you know vs. the devil you don't know (SVP, Banking Institution, "Buying Co. #356").

DV2: Likelihood to Refer

As with Likelihood to Renew, independent variables 1 through 5 (Collaboration, Initiator, Market Segment, Products & Services, and US Culture [North/South]) were positively associated with "Likelihood to Refer," which is an indication of a buyer's perceptions and attitudes toward the seller, and thus is an example of attitudinal loyalty. Attitudinal loyalty may be a better indicator of customer perceptions compared to behavioral loyalty (e.g., Likelihood to Renew), because providing a reference requires additional action from the buyer, whereas renewing a contract can be a way for the buyer to avoid needing to make a change. Attitudinal loyalty speaks to a buyer's true thoughts and feelings about a supplier; some researchers suggest that attitudinal loyalty is a better measure of how a buyer feels than behavioral loyalty.

Compare the following examples of attitudinal loyalty, from executives who were likely to refer a supplier, to the examples of behavioral loyalty given above from executives who were likely to renew:

> It's because of the relationship we have (Director of Operations, Public School, "Buying Co. #163").
>
> Whenever we are at meetings, people ask always ask us about 'supplier' and we always recommend (Business Admin Education Institution, "Buying Co. #183").
>
> You always run into people that ask, especially at Credit Union functions. It's very common to get into conversations about who one uses for Credit Card processing or Debit Card processing and what one's experience with that company is. And I always recommend 'supplier' (SVP Member Services Operations, Banking Institution, "Buying Co. #367").

Likelihood to refer is a strong statement of buyer loyalty because it is unsolicited and is driven by the buyer's satisfaction with the supplier. In addition, there is more at risk for the person providing the referral compared to an individual purchase decision. For example, a buyer puts their professional judgment on the line when making a referral, and thus their integrity may be questioned. In addition, if the product or service was merely adequate, it is less likely that an executive would be willing to put their reputation at risk. Therefore, likelihood to refer may be a better indication of customer delight compared to likelihood to renew a contract, because it reflects belief in or positive attitudes toward the product and the supplier.

These insights could help practitioners delineate when to elicit feedback on sales performance versus buyer attitudes. For example, a supplier may believe that all is well with an account because the buyer continues to purchase the supplier's products; however, the buyer may be repurchasing out of convenience rather than from optimal needs satisfaction and may be interested in competitors' offerings. Suppliers and sales and marketing practitioners should seek feedback to verify their assumptions, as the buyer feedback may not be what they expect. Patterns in buyer feedback can provide valuable insights into what is needed (or not needed) from the seller.

DV3: Buyer–Seller Strategic Alignment

Recall from the results section and the earlier independent variable discussions that Collaboration (IV1), Initiator (IV2), Market Segment (IV3), Product and Service (IV4) and US Culture – North/South (IV5) all had a statistically significant and meaningful relationship with buyer–seller strategic alignment. Since this data was categorical in nature, no other inferences can be made about this relationship. Therefore, further studies are warranted to better understand these phenomena.

DV4: Willingness to Include in an RFP

Collaboration (IV1), Initiator (IV2), Market Segment (IV3) and Product and Service (IV4) all had a statistically significant and meaningful relationship with buyer's willingness to include the seller in a near-term RFP, if relevant. This information suggests that there is an opportunity for enhanced interorganizational sales effectiveness for the seller to engage in IVs 1 through 4.

DV5: Effectiveness of Sales Collaboration

The dependent variable Effectiveness of Sales Collaboration is predicted by the independent variables 1 through 5 (Collaboration, Initiator, Market Segment, Products and Services and US Culture [North/South]). These findings provide proof of the impact of IV1 through IV5 on interorganizational B2B selling. This further suggests the role that Market Segment (IV3) and Products and Services (IV4) have on the B2B relationship. The study lastly showed that buyers in the northern US were more inclined to renew and to refer than buyers in the south.

Multivariate Analysis: Likelihood to Renew

There were three IVs that were statistically significant predictors of likelihood to renew: Collaboration (IV1), Market Segment (IV3), and Product Type (IV4). The other three IVs (Initiator Type–IV2, Location–IV5, and US Culture–IV6) were not statistically significant predictors of likelihood to renew. Further investigation showed that the existence of collaboration and Retail were positive predictors. These findings confirm that collaboration matters in interorganizational B2B sales, consistent with the extant literature on collaboration

(Prahalad & Ramaswamy, 2000; Vargo & Lusch, 2008) and extending the emerging literature on sales collaboration (Wagner et al., 2010).

Interestingly, there was a negative relationship between the supplier category Financial Services and the likelihood of a buyer to renew. This may be due to buyers' perceptions of financial services as a commodity. The positive association between the buyer market segment Retail and Likelihood to Renew may be due to high service quality of the retail sector represented in the data. In addition, the specific retail segments represented may have been highly customizable, which would also lend to collaboration. Also note that these results are based on high-dollar RFPs and may not be generalizable to retailers as a whole.

Multivariate Analysis: Likelihood to Refer

As for likelihood to renew, three IVs were statistically significant predictors of likelihood to refer: Collaboration (IV1), Market Segment (IV3), and Product Type (IV4), while Initiator Type, Location, and US Culture were not significant predictors of this metric. Specifically, the existence of collaboration and Retail were positive predictors, and Facilities and Financial Services were negative predictors of the likelihood to refer. In general, sellers who offer problem-solving and value-added behaviors may realize strong benefits, especially when engaged with customers in the retail arena. In this data set, collaboration was negatively associated with customers' likelihood to engage in positive word of mouth for providers associated with Facilities (i.e., MRO—maintenance, repair or operations) or Financial Services. Again, if these products and services are viewed as readily available commodities, they may be difficult to differentiate, and therefore, buyers may be less likely to perceive an overall benefit of one provider over another.

Multivariate Analysis: Effectiveness of Sales Collaboration

Because the effectiveness of sales collaboration was a combined measure of a customer's likelihood to renew and to refer, it was not surprising that the same independent variables—Collaboration, Market Segment, and Product Type—were statistically significant for the effectiveness measure. Specifically, the existence of collaboration and the customer segment Retail were positive predictors of the effectiveness of sales collaboration, and the product category Financial Services was a negative predictor. Unlike the results for likelihood to refer, Facilities was neither positively or negatively associated with effectiveness. This may have been due to Facilities having no correlation (either positive or negative) with likelihood to renew. This finding would be worthy of additional investigation.

IX LIMITATIONS

This study focused on identifying interorganizational (B2B) collaboration as perceived by customer companies, and perceived differences in customer value associated with different approaches to collaboration. Multiple interview sources within each organization and across companies were used. Because this study used secondary data, additional methods of verifying informant observations were not available.

I identified buyer-initiated, seller-initiated, and equal-partner-initiated collaboration by evaluating and coding the interview responses. The process of assigning responses that consisted of qualitative data to categories may have biased the findings because the coding was performed according to my interpretation. For example, I defined responses that described the seller as "proactive" as seller-initiated collaboration. However, I attempted to minimize subjective bias by taking a grounded theory approach based in my many years of experience in high-level sales, and by analyzing multiple cases from which common themes emerged. Johnston, Leach and Liu (1999) note that researchers need to carefully address potential sources of weakness in their methodological approach. To enhance the qualitative analysis, I attempted to add rigor by using quantitative analysis to increase the validity of the findings. As a practitioner researcher, I may also be biased toward solving real-world B2B problems, and therefore not just focused on the theoretical implications. In summary, the results of this exploratory study suggest that other rigorous studies using primary data to address specific research questions, such as the willingness of a buyer to include the seller in a future RFP, would be warranted. This would enable additional follow-up questions to be asked that probe interviewees' responses for deeper insights. Such an approach could triangulate the findings by, for example, integrating company documents, by seeking feedback from the selling firm regarding final purchase decisions, and by verifying the deal dollar values.

This study was limited to B2B sales in the large industrial deal space; all buyers were Fortune companies. However, the suppliers varied in size. Therefore, the findings may not be generalizable to small- or medium-sized B2B sales or B2C contexts, and the findings may vary according to the size of the supplier. Large B2B sales contain a buying center and may use more sophisticated means of deal evaluation (Hutt et al., 1985); customer relationship dynamics may differ according to the size of the deal, the buyer and the supplier. Johnston and Lewin (1996) note that:

> Interfirm (buyer-seller) relationships and communication networks become increasingly important in higher risk purchase situations (p. 10).

Finally, the data included feedback from buyers only. It would be interesting to examine the dyadic relationship through the lens of both the buyer and the seller.

X CONCLUSIONS AND FUTURE DIRECTIONS

This study has provided interesting insights into customer perceptions of collaboration in large B2B sales, and it confirms the established literature by supporting that collaboration matters. The findings extend the collaboration literature by showing that sellers of certain product and service offerings may actually experience negative consequences of collaborative behaviors and initiatives. This is a significant finding for practitioners and researchers. It appears that products and services that are highly customizable are more positively associated with interorganizational sales collaboration, while collaborative behaviors may not be advisable for products and services that are view as commodities. In fact, providers of commodities may experience negative repercussions of collaborative initiatives, by failing to have their contracts renewed or to receive referrals.

The study also leaves us with several questions. For example, more respondents were likely to refer a buyer than likely to renew a contract with a buyer. Some may view likelihood to refer as a stronger indicator of performance than likelihood to renew, since providing a reference requires a buyer to take extra steps and to put their credibility on the line, while renewing may be a more passive approach, simply based on past behaviors. Why were more respondents likely to refer than likely to renew? Which is the better measure of performance? It may be useful to examine these questions through the lens of attitudinal and behavioral loyalty theory. There is tension between practitioners and researchers as to whether behavioral or attitudinal loyalty is more favorable for suppliers. Researchers may mistakenly draw conclusions about behaviors from attitudes that are expressed. Conversely, we must be cautious about drawing conclusions about attitudes based on observed behaviors.

The results presented here were based on repurchase intentions; the suppliers had previously sold the buyers a solution, and the interviews aimed to assess buyer loyalty and perceptions of the suppliers. Some buyers may continue to buy out of habit, not solely based on performance, which would be an example of behavioral rather than attitudinal loyalty. Is the strength of one form of loyalty superior to the other in terms of long-term sales performance? Johnston et al. (1981) state that new buy purchases may behave differently than rebuy situations. Therefore, the conclusions presented here cannot be generalized to new buy purchase situations.

In designing research, the *what* questions should be driven by the *why* questions. If researchers or practitioners are interested in measuring quality or particular attributes of a company or product, they should ask attitudinal questions and measure variables that lead to attitudinal loyalty. However, if they are looking to evaluate sales and purchase decisions, customer behaviors and behavioral loyalty may be better predictors. Although there may be overlap between the two, one is based on what the buyer thinks and feels, while the other is based on how the buyer acts. From a practitioner perspective, suppliers should be aware that the best mousetrap might not lead to the most market share. It may be more important to achieve behavioral loyalty, which this study suggests can occur through strong sales collaboration.

Krathu et al. (2012) discuss the use of tools such as the Balanced Scorecard to evaluate and monitor the effectiveness of interorganizational relationships. In collaborative B2B relationships, it may be advantageous for sellers to share information in a Balanced Scorecard format during business reviews to help illustrate the global value they are providing. Different stakeholders will be concerned with different aspects of the value proposition. To the extent that the supplier is adding value across the buyer organization, this technique can provide a systematic way to give stakeholders a perspective on the global impact of the proposition, not just the impact on a particular department or function. It would be interesting to measuring the effects of the use of the Balanced Scorecard on perceived performance and sales outcomes in interorganizational B2B collaboration.

It would also be interesting to examine how collaboration evolves over time within B2B relationships, whether it tends to progress through defined stages, and whether there is a point of diminishing returns to the buyer or to the supplier. Additional questions of interest include: What inputs are required to maintain a collaborative selling relationship, and how do those inputs vary with market segment and industry? How does the interorganizational relationship break down? Which specific behaviors used by initiators of collaboration have the strongest positive impact on buyer perceptions? Future studies could also examine how suppliers can grow and extend their business with particular buyers using sales collaboration, rather than just maintaining contract renewal.

Given the importance of collaboration in large B2B sales involving Fortune company buyers, it would be worthwhile to examine whether similar results occur in small- to medium-sized B2B relationships. In addition, it would be interesting to explore whether the relationship differs according to the size of the supplier.

APPENDICES

APPENDIX 1: Case Descriptives

Table 27: Industries and Market Segments Studied

INDUSTRY	MARKET SEGMENT
Education	Higher Education
Education	Public School
Education	School District
Financial	Business Services
Financial	Data Services
Financial	Insurance Services
Financial	Retail Services
Government	City
Government	County
Government	State
Hospitality	Hotel
Hospitality	Restaurant
Legal	Legal Firm
Manufacturing	Durable Goods
Manufacturing	Electronics
Manufacturing	Non-Durable Goods
Medical	Hospital
Real Estate	Facility Services
Real Estate	Holding
Retail	Retail
Service	Consulting
Service	Software and Web Services
Utility	Communications/Utilities

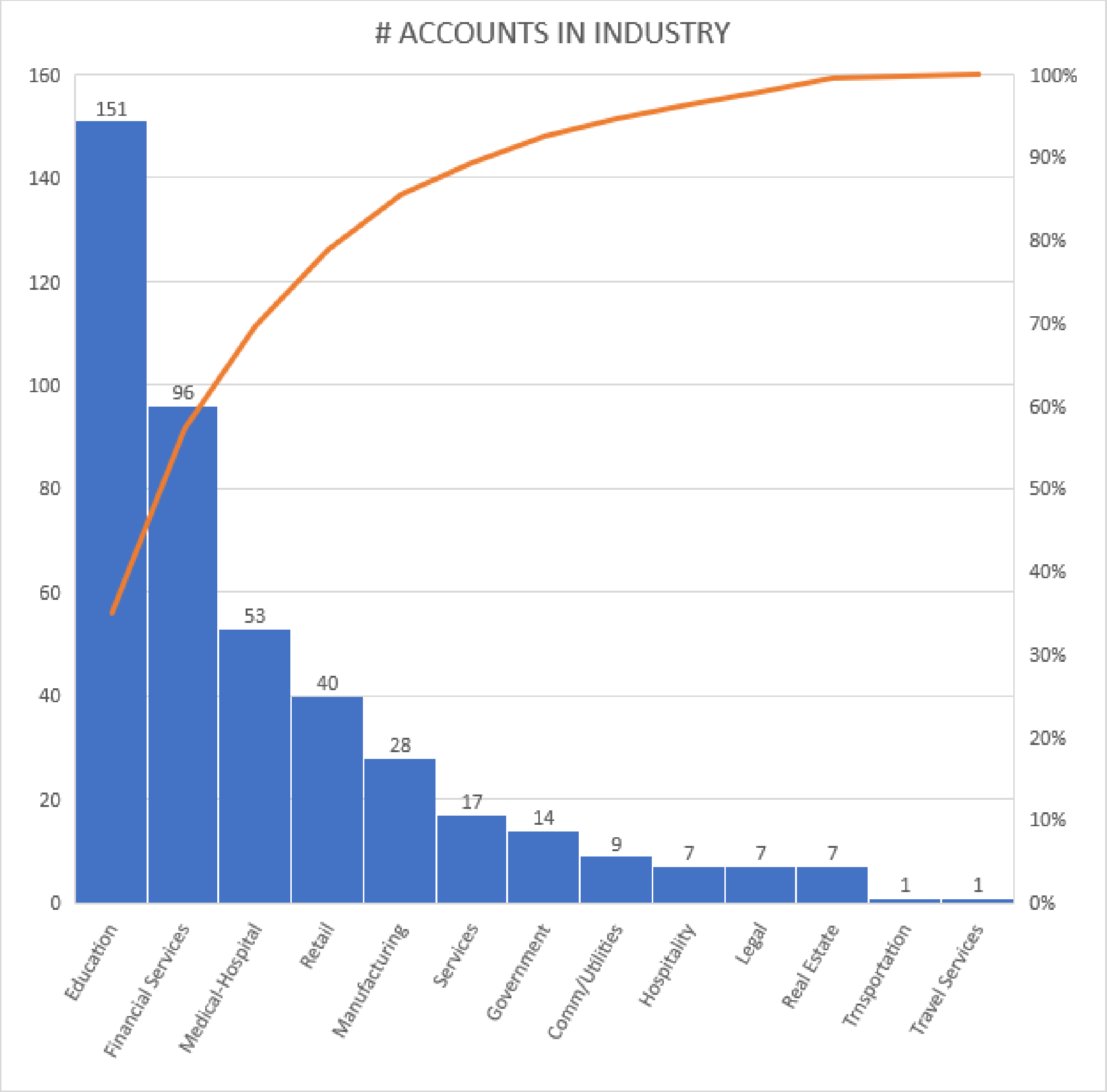


Figure 20: Paredo Analysis of Accounts by Industry

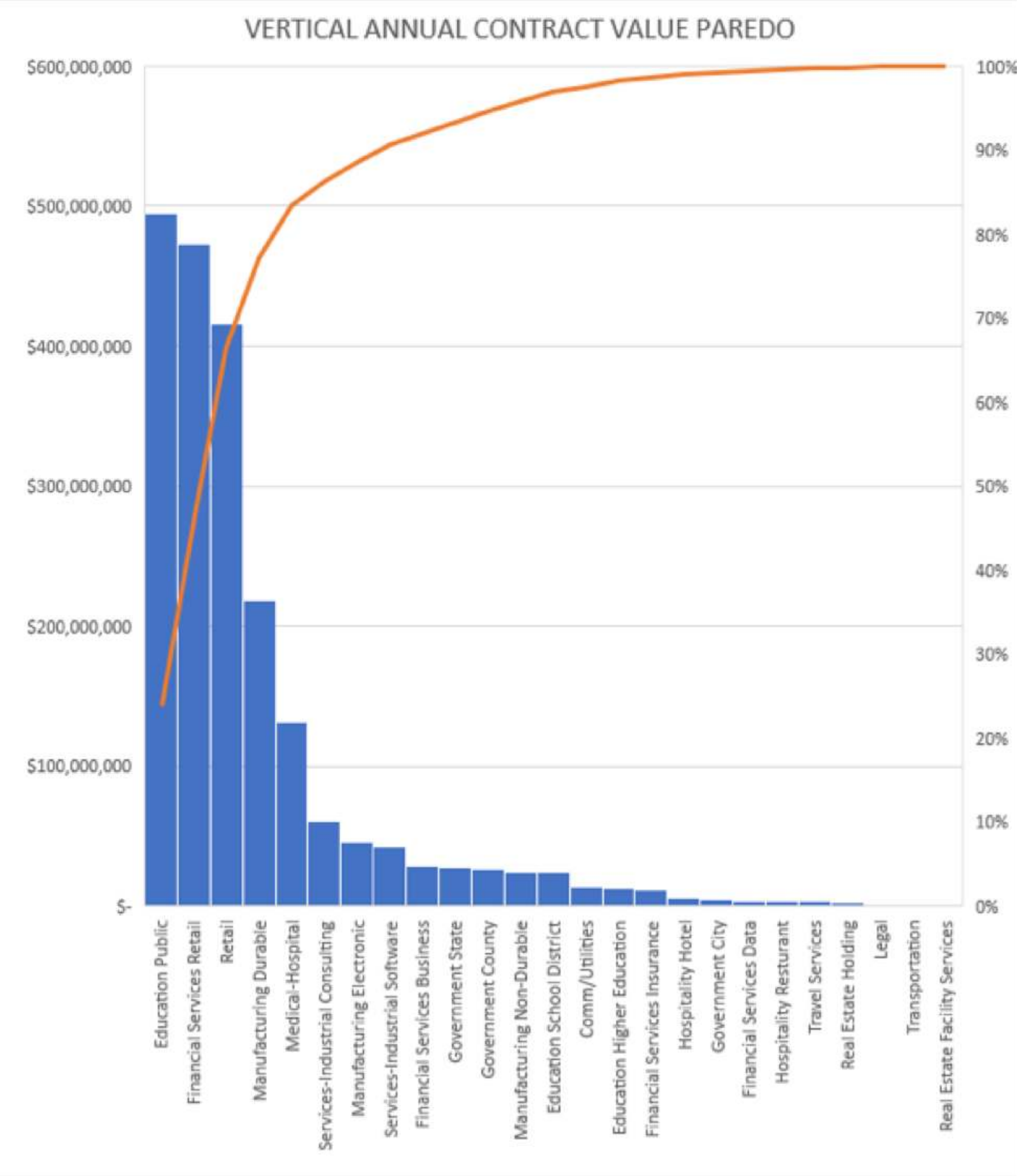


Figure 21: Paredo Annual Segment Contract Value

APPENDIX 2: Coding

Table 28: Buying Company Anonymization

Client ID	**Client_Company Name**
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Table 29: Supplier Cleansing

company_id	Product/Service Offering
A	Software
B	HR Consulting
C	Building Construction/Consulting 1
D	Vehicle Rental
E	Food Services
F	Medical Device/Capital Equipment
G	Shipping
H	Consumer Packaged Goods Drinks
I	Flooring 1
J	Hotel
K	HR Staffing
L	Education Consultant
M	Recruiting/Staffing
N	Digital Security
O	Building Construction/Consulting 2
P	Financial Consulting
Q	Healthcare Consulting
R	Hotel 2
S	Audio Visual
T	MRO Company
U	Banking
V	Flooring 2
W	Waste Solutions

Table 30: NVIVO Coding

Coding Nodes	Examples-ONLY
Question Q7 Comments Proactive Improvements (CL) AF Master Data	
Proactive recommendations provided during (any/all) contract discussions	Yes, when we first engaged them or (during contract renewal), better than competitors
Proactive recommendations provided at contract renewal	Yes, during contract review
Proactive solutions in the beginning, but not since then	Yes, that is why we first engaged them, however no further recommendations
Proactive recommendations provided during "new" proposal acquisition	Yes, that is why we first engaged them, however no further recommendations
Proactive recommendations provided during modified rebuy	Instead of just renewing the contract, we included these features which helped us…
Cost benefit analysis conducted	Not supported quantitatively
Cost neutral solution	We were okay with the solution because the increased cost was offset by the profits that were gained
Lost mitigation	Yes, we had a situation that they were able to alert us to that prevented…
Responsive vs. Reactive recommendations	whenever we ask for something, they are responsive
Proactive recommendation provided once competition is involved	only after they found what the competition was doing
Recommendation helped us beat the competition	Their recommendation gave us a competitive advantage over XYZ company
Recommendations increase revenue or profit	They are a real partner, they helped us increase revenue
Recommendations decrease revenue	Their recommendation cost us more than the ROI
Recommendations viewed as investment vs. cost	Their recommendation cost us more than the ROI
Question not asked	(Blank)
Not applicable	This question did not apply; N/A
Salesy	The recommendation was expensive and lacked a positive ROI, they were just trying to sell us stuff
Recommendation reduced waste	The solution helped us minimize resources

APPENDIX 3: Univariate Analysis

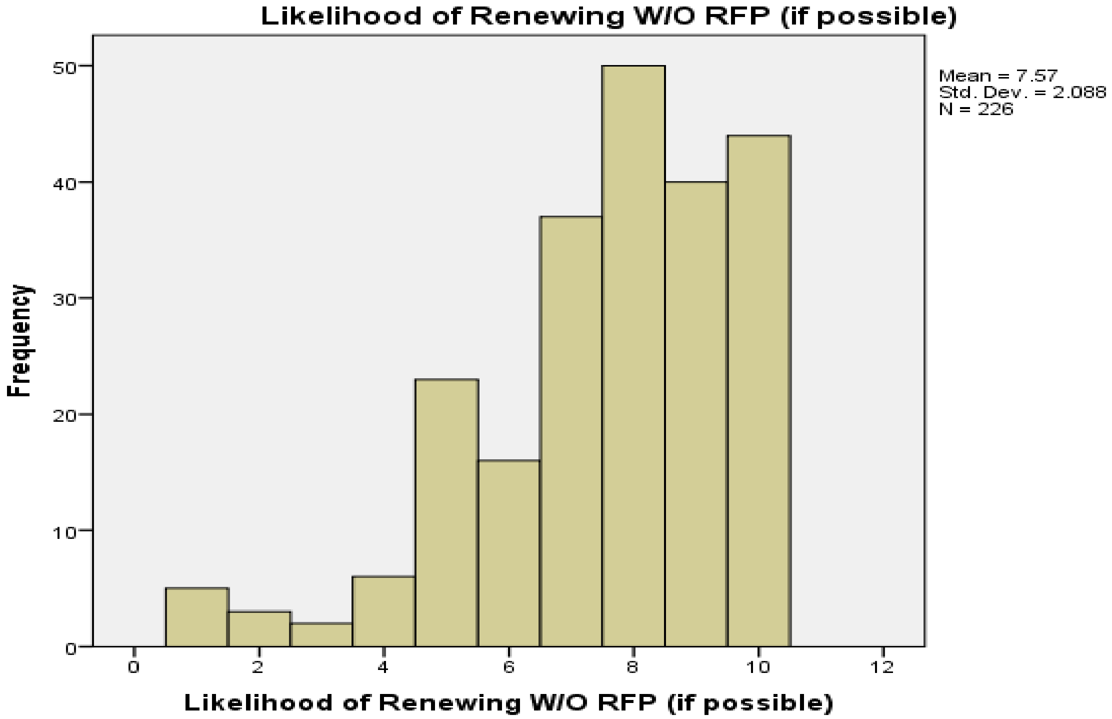


Figure 22: Renew vs. Frequency

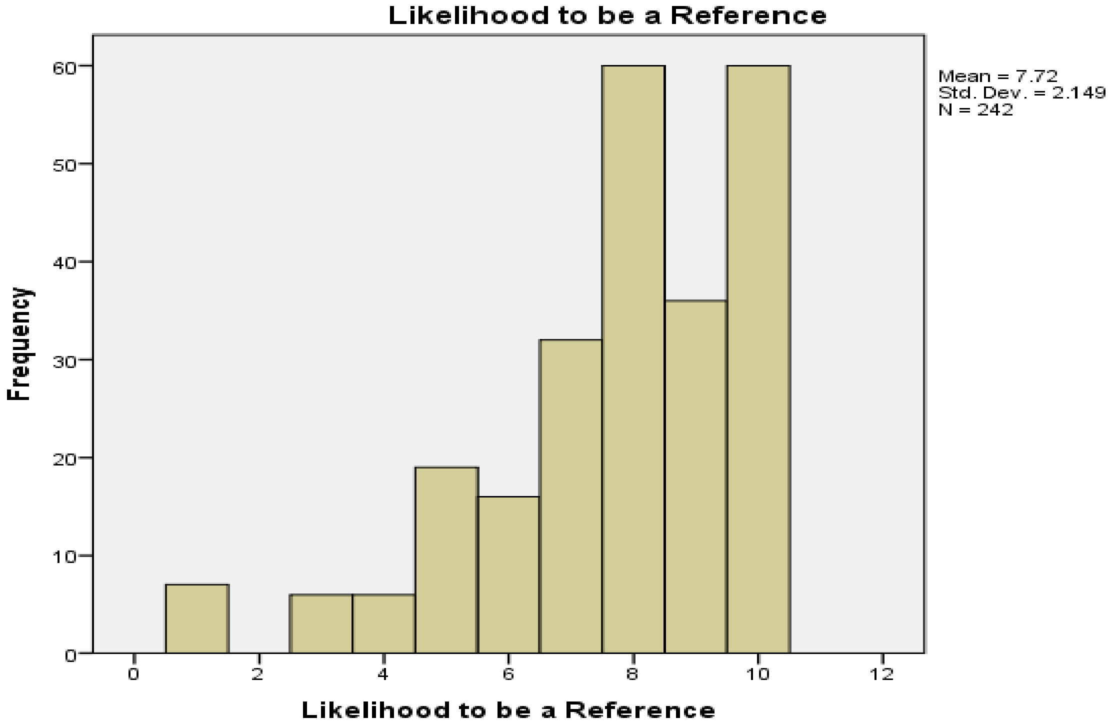


Figure 23: Reference vs. Frequency

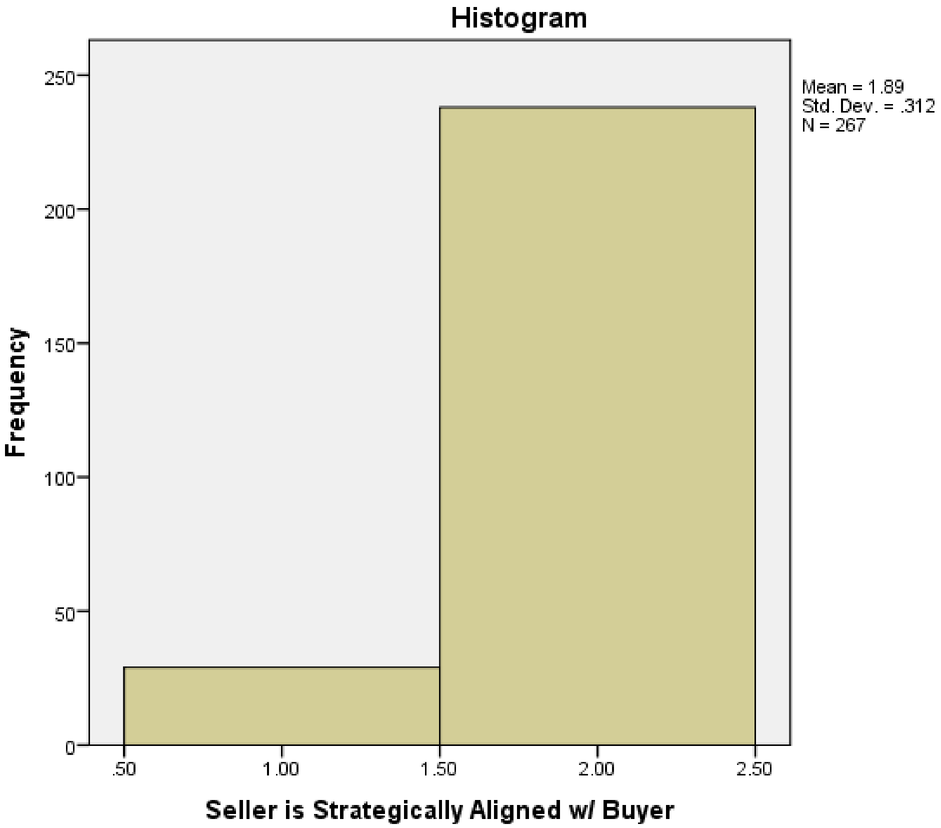


Figure 24: Seller is Strategically Aligned vs. Frequency

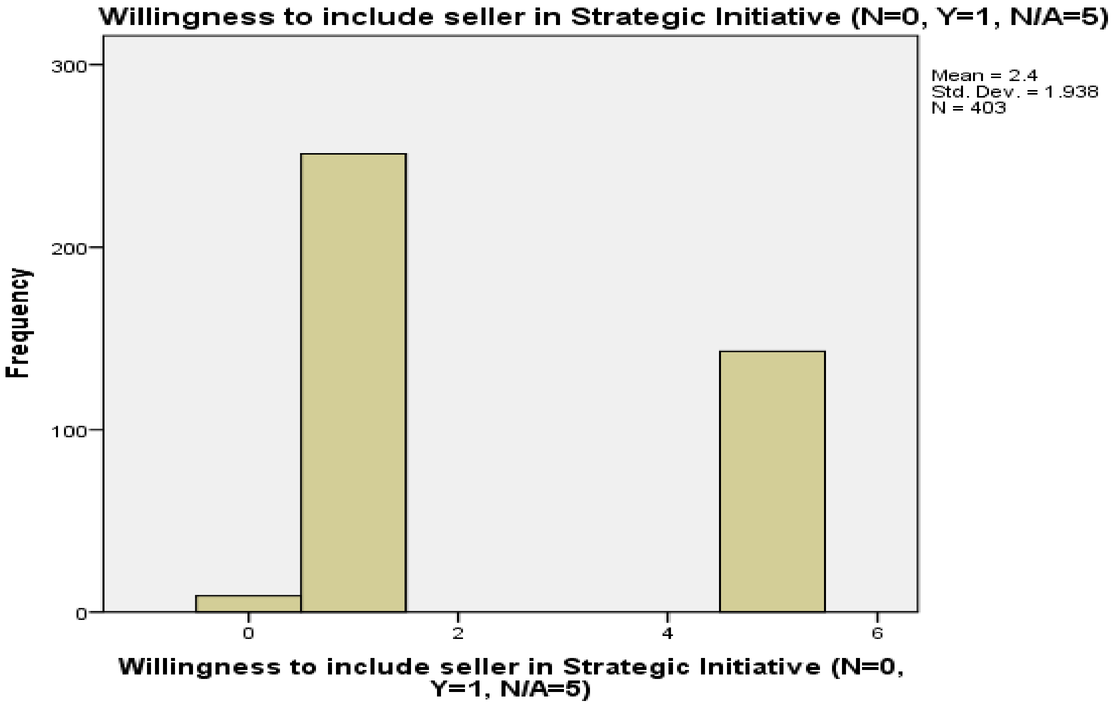


Figure 25: Willingness to Include Seller vs. Frequency

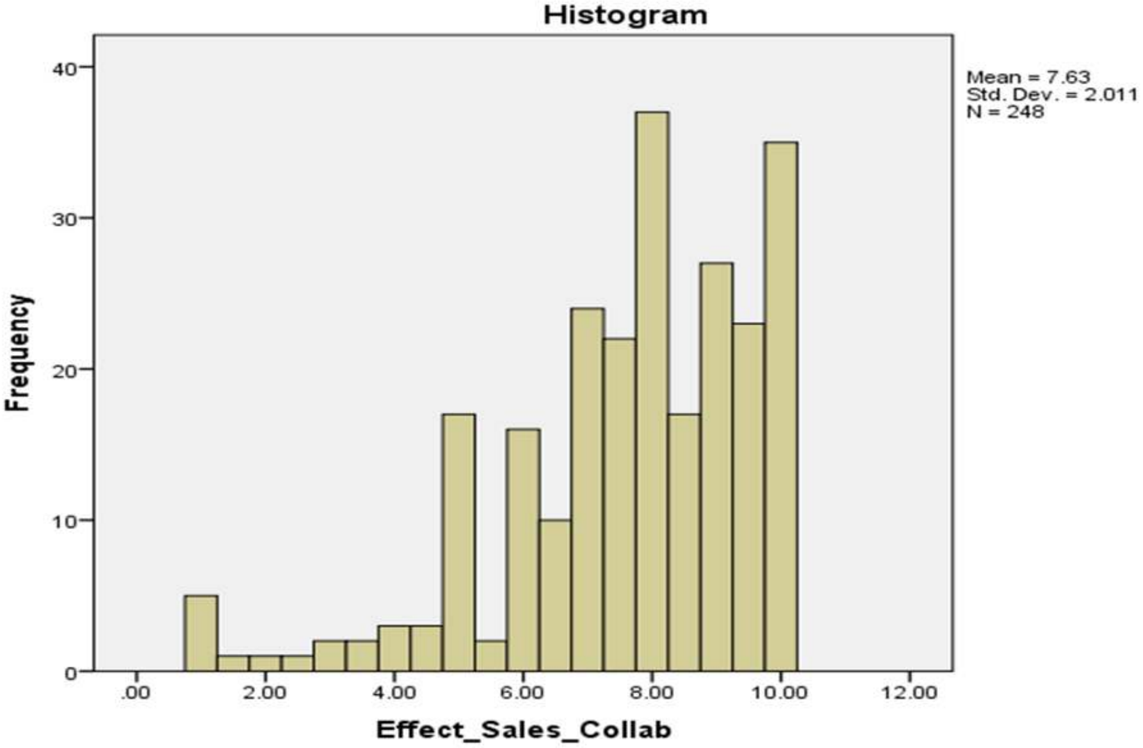


Figure 26: Effectiveness of Sales Collaboration vs. Frequency

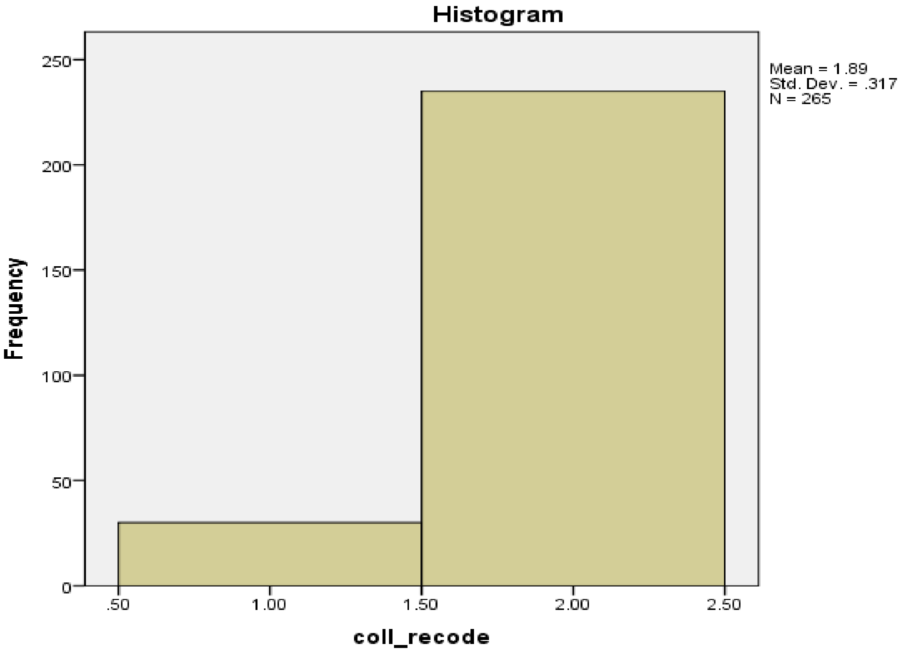


Figure 27: Collaboration vs. Frequency

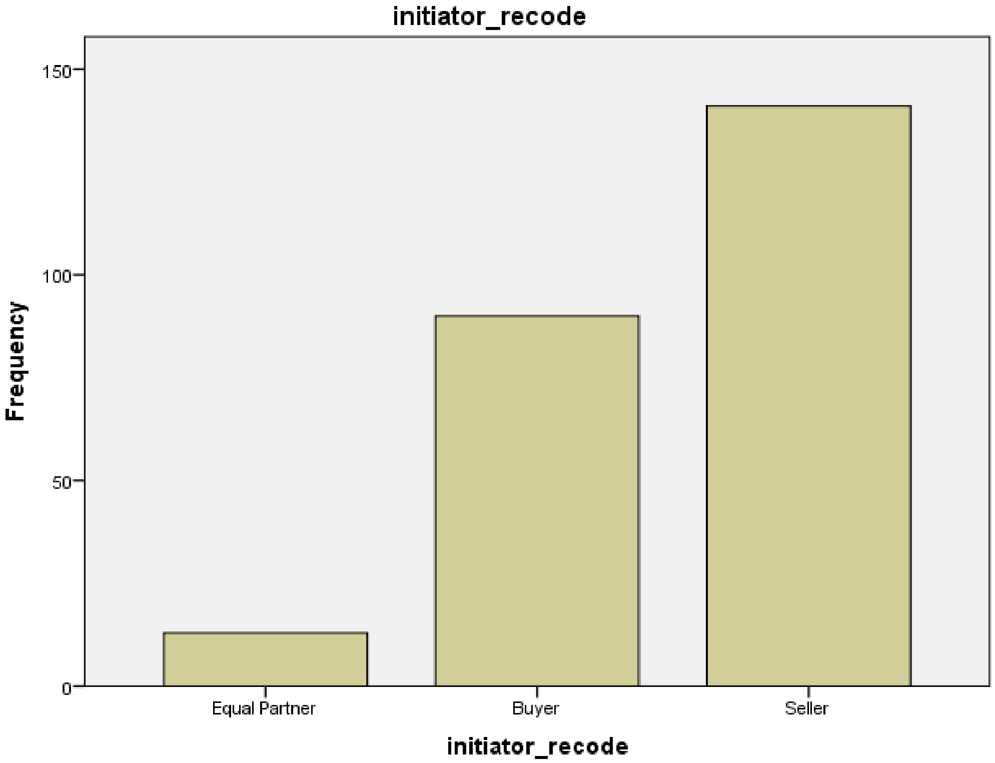


Figure 28: Initiator vs. Frequency

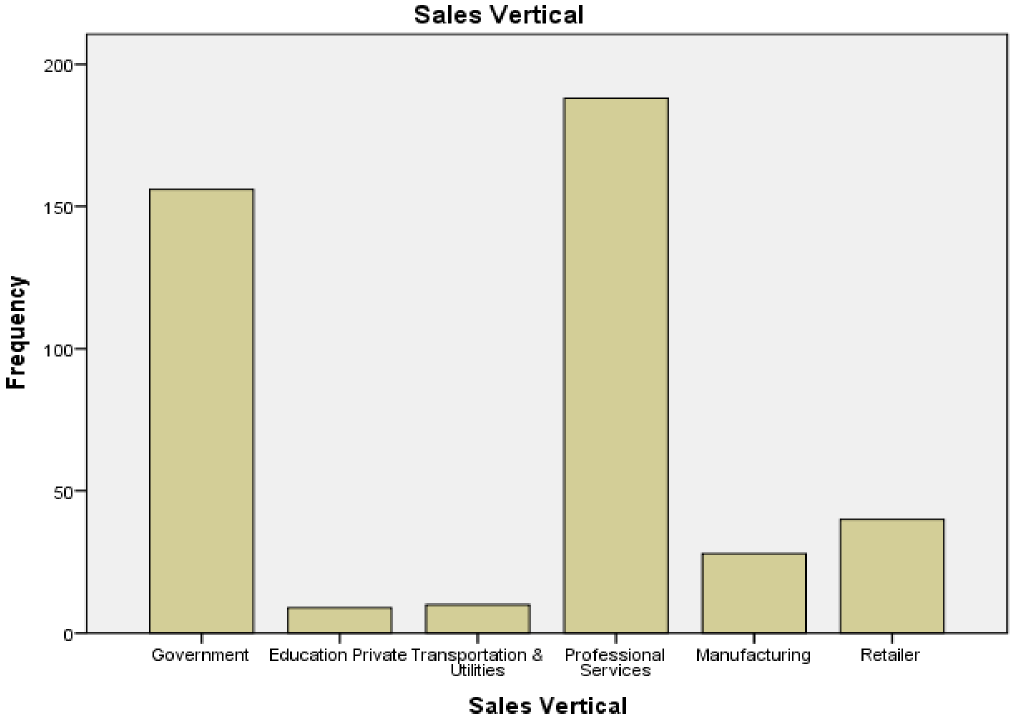


Figure 29: Market Segment vs. Frequency

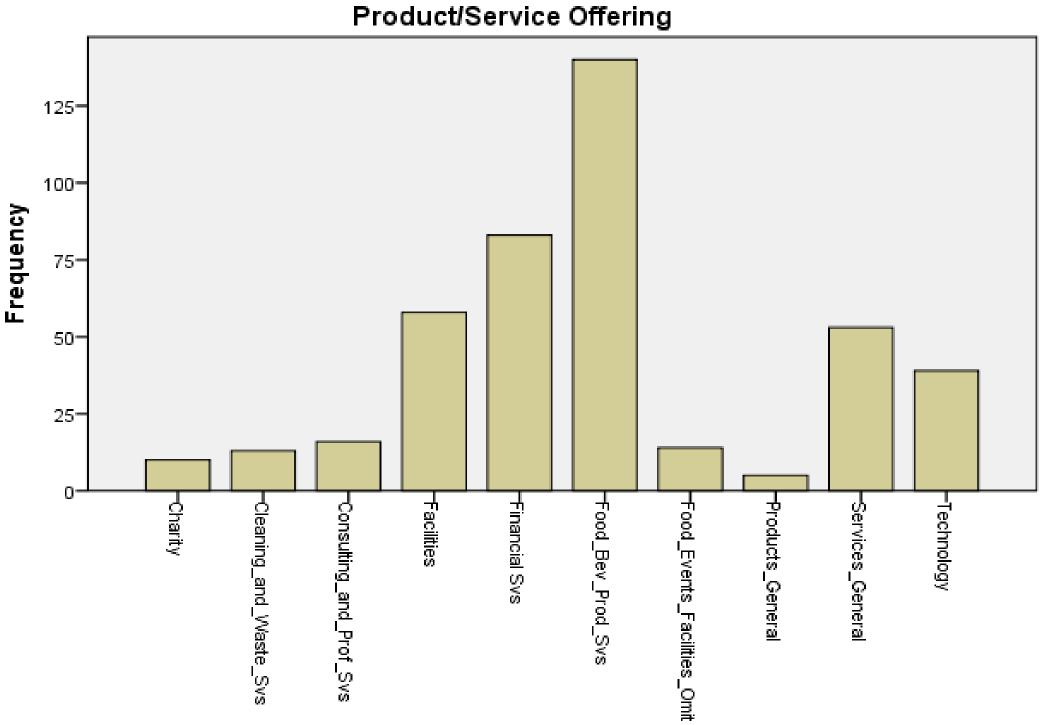


Figure 30: Product and Service vs. Frequency

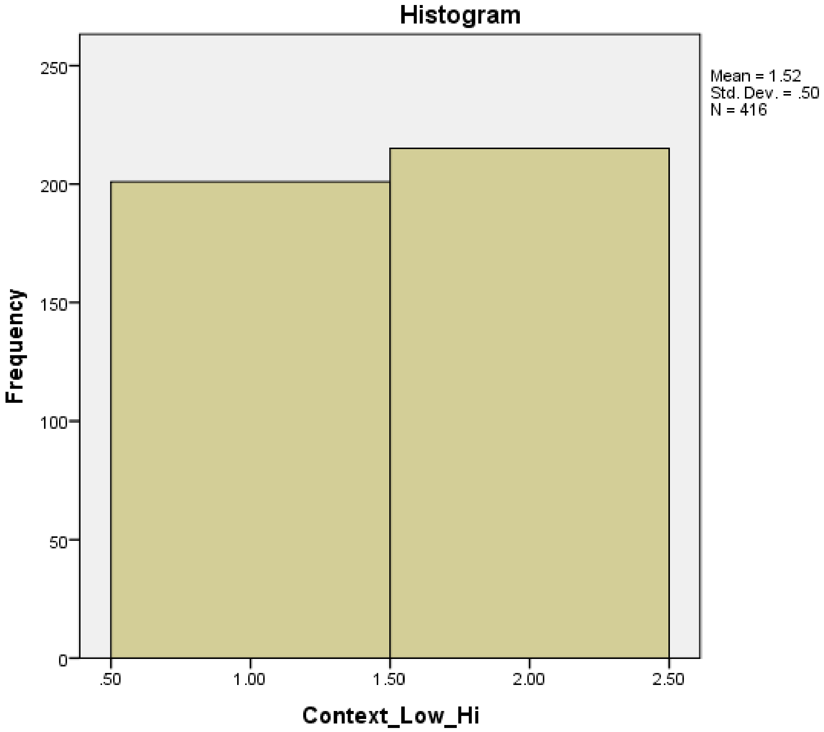


Figure 31: US, North/South vs. Frequency

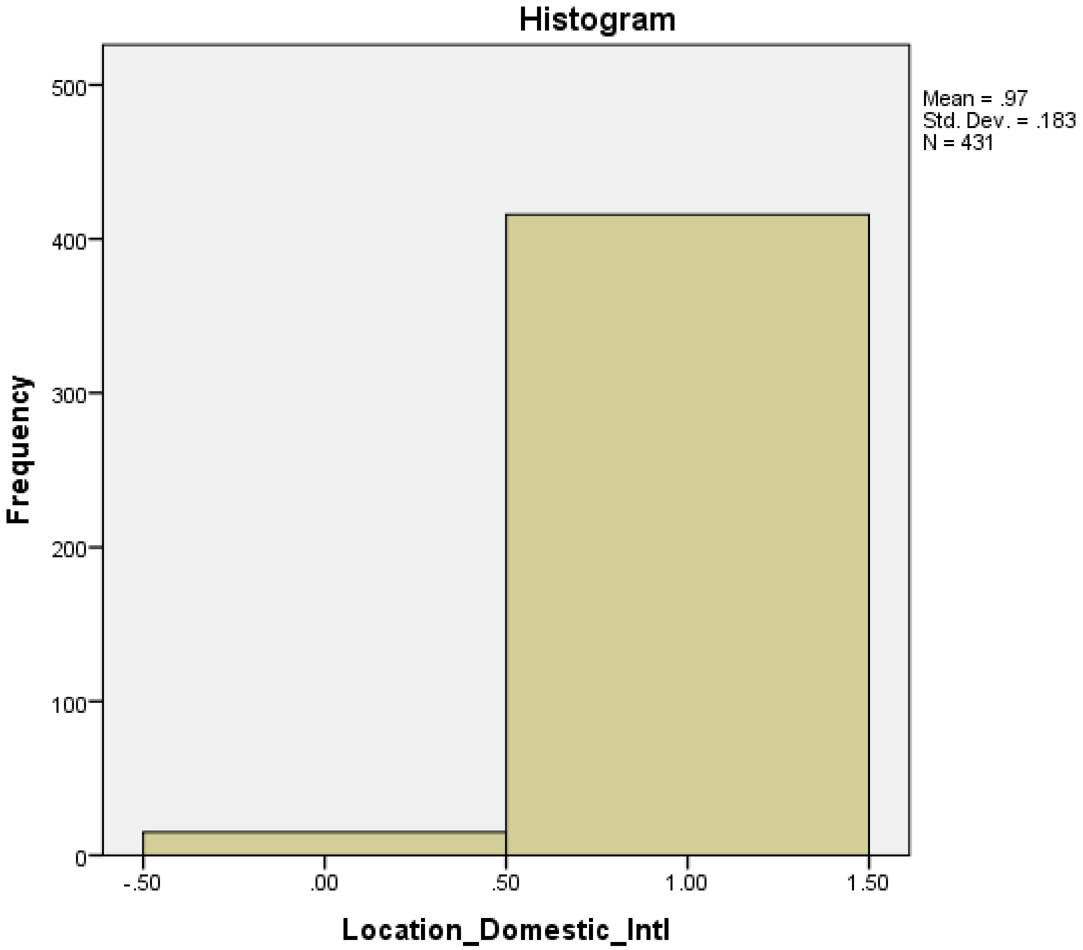


Figure 32: Location: Domestic/International vs. Frequency

APPENDIX 4: Bivariate Analysis

Bivariate Analyses: Continuous DVs (DV1, DV2, and DV5)

Scatter Plots

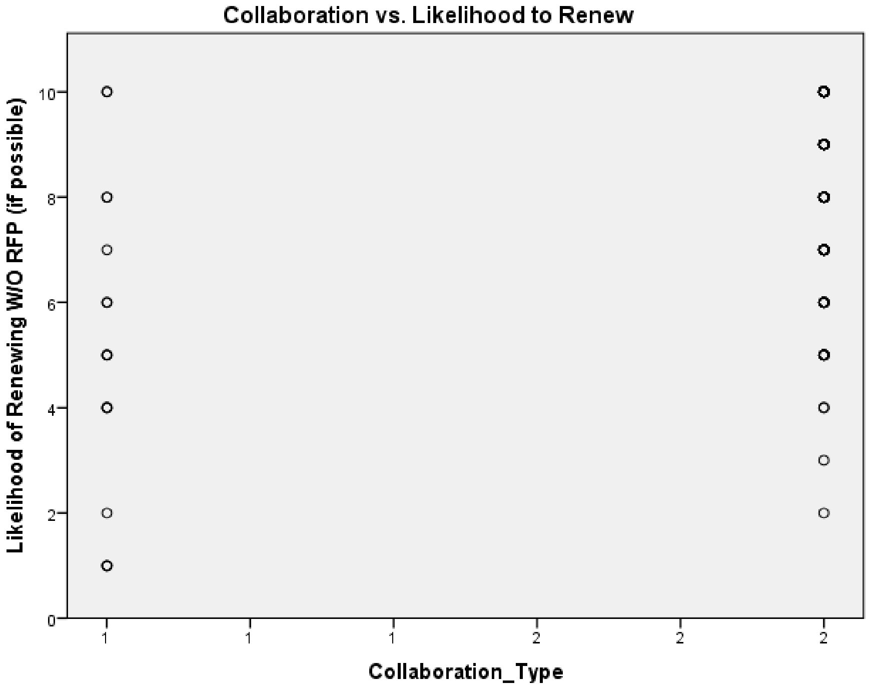


Figure 33: Collaboration vs. Renew Scatter

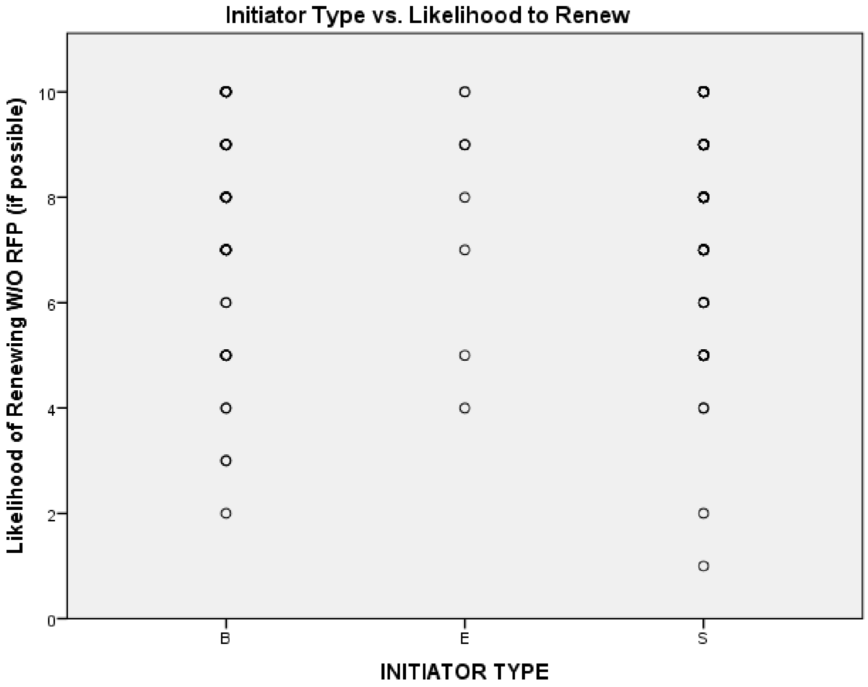


Figure 34: Initiator vs. Renew Scatter

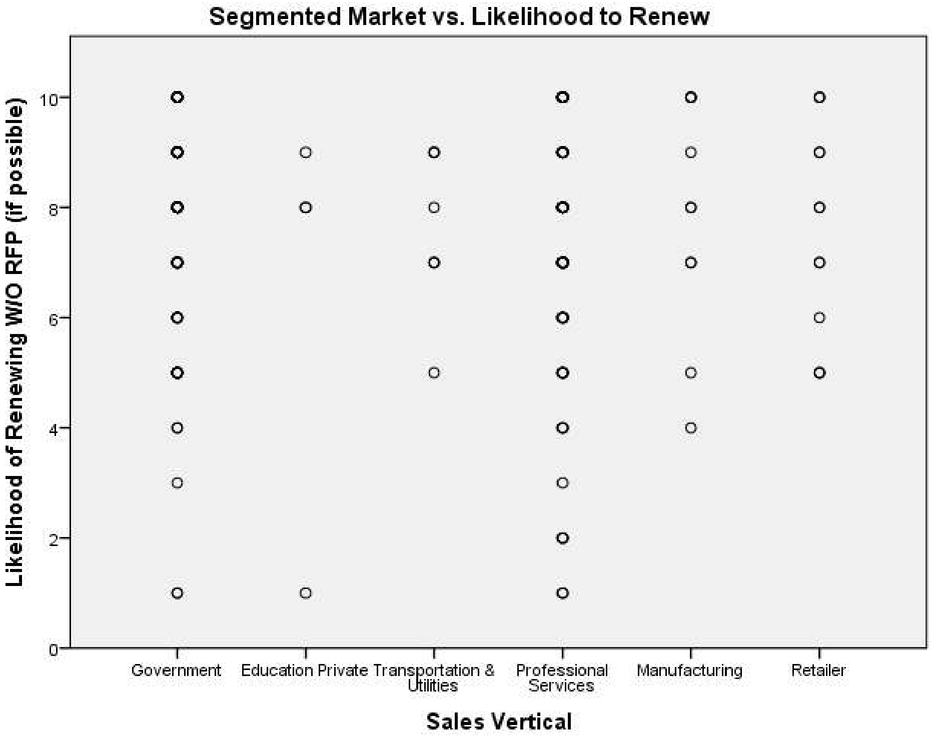


Figure 35: Market Segment vs. Renew Scatter

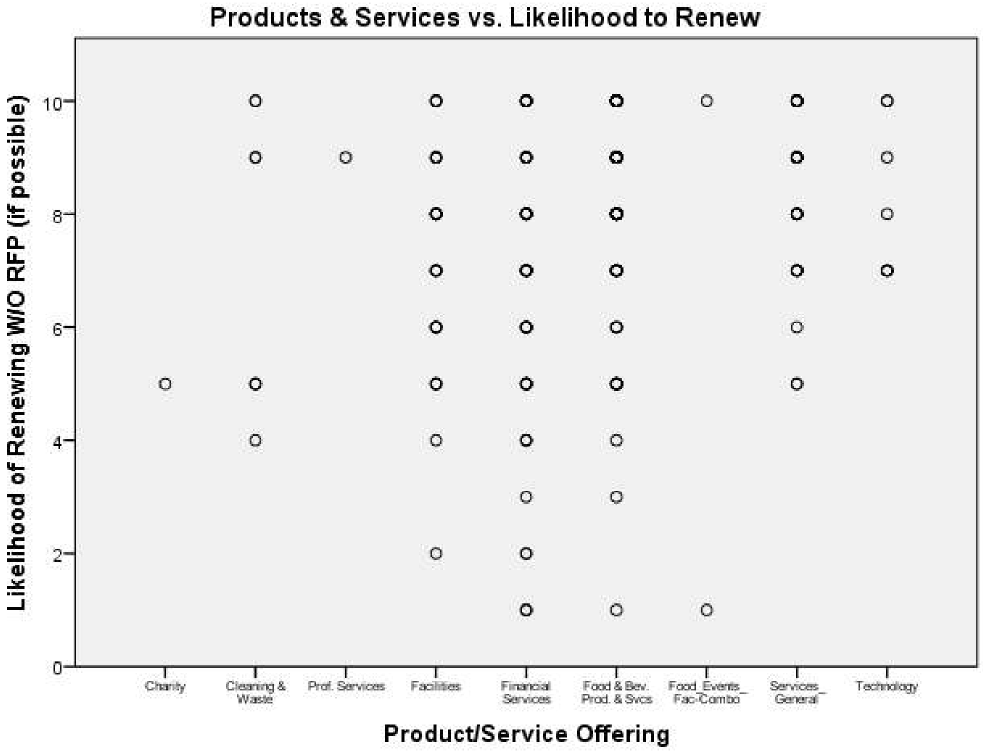


Figure 36: Product and Service vs. Renew Scatter

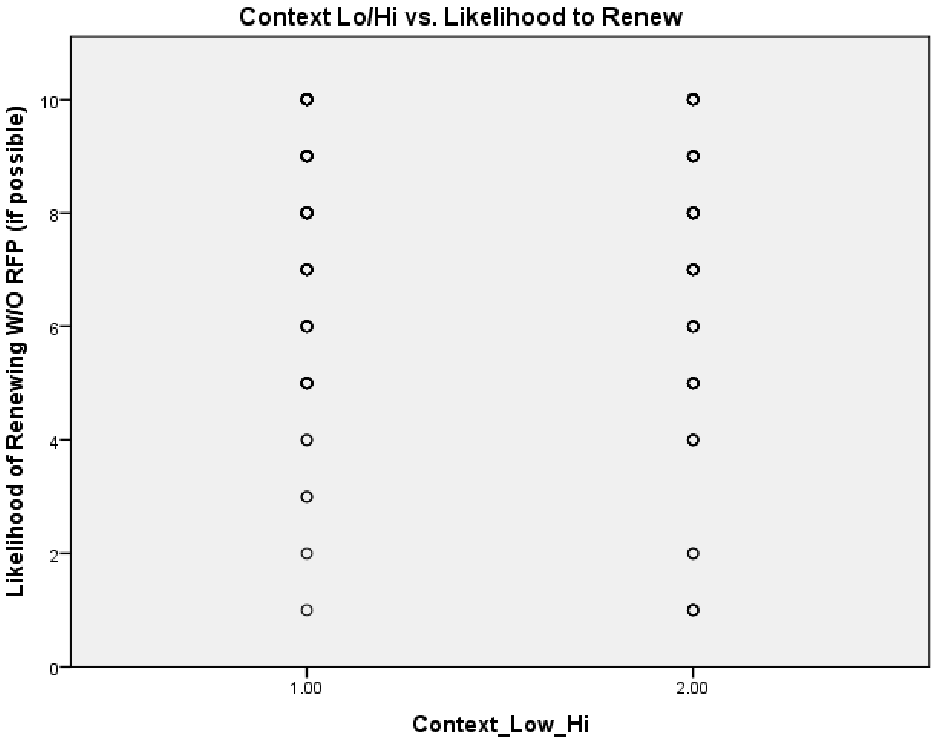


Figure 37: US, North/South vs. Renew Scatter

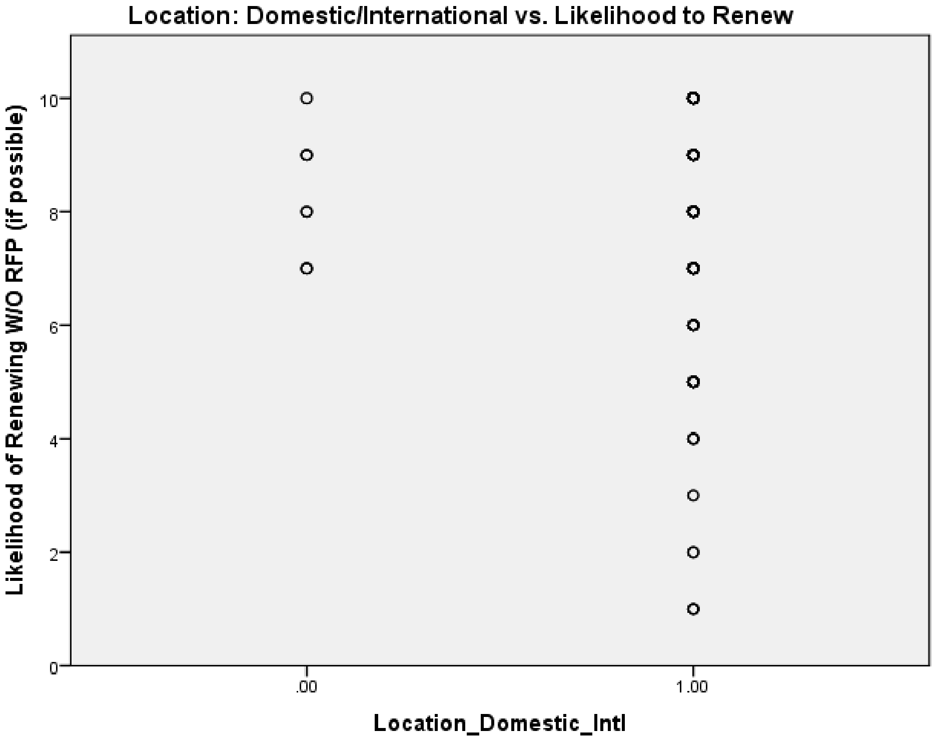


Figure 38: Location: Domestic/International vs. Renew Scatter

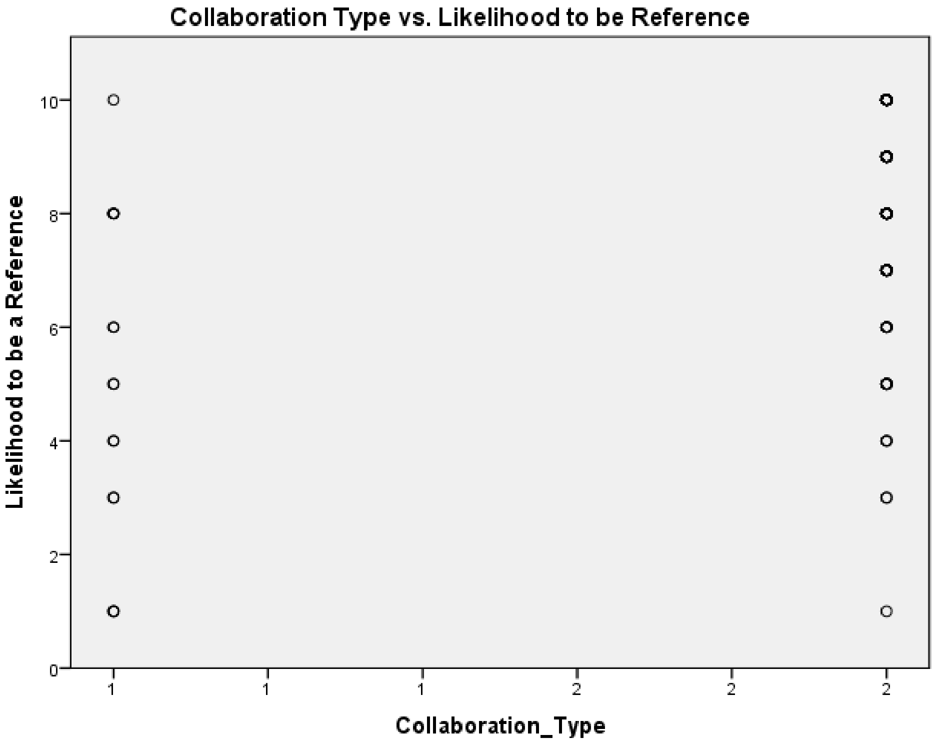


Figure 39: Collaboration vs. Reference Scatter

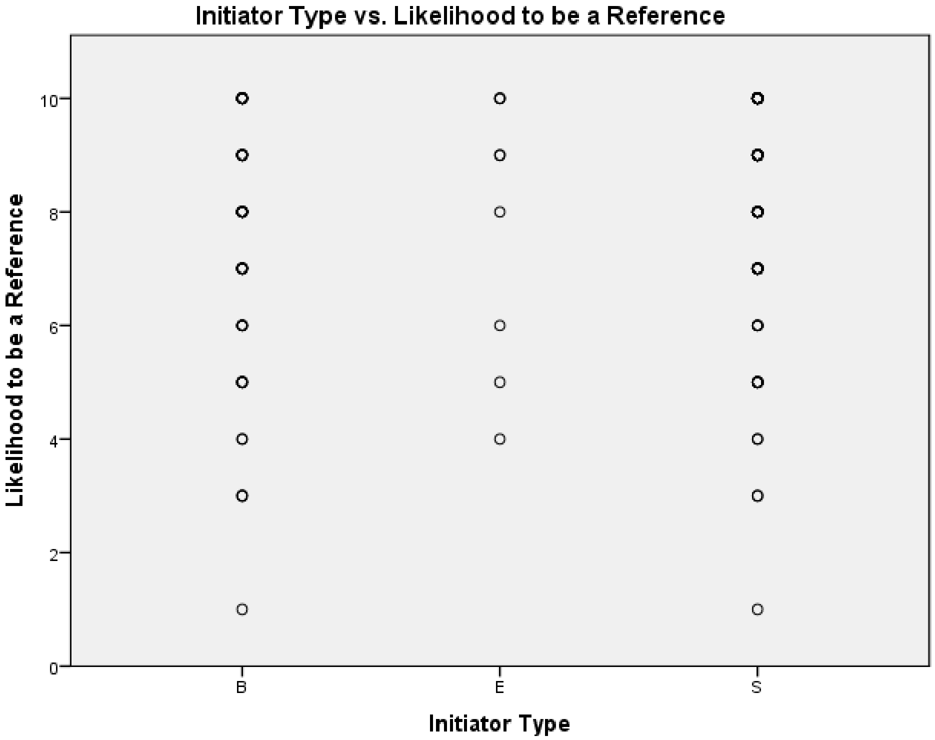


Figure 40: Initiator vs. Reference Scatter

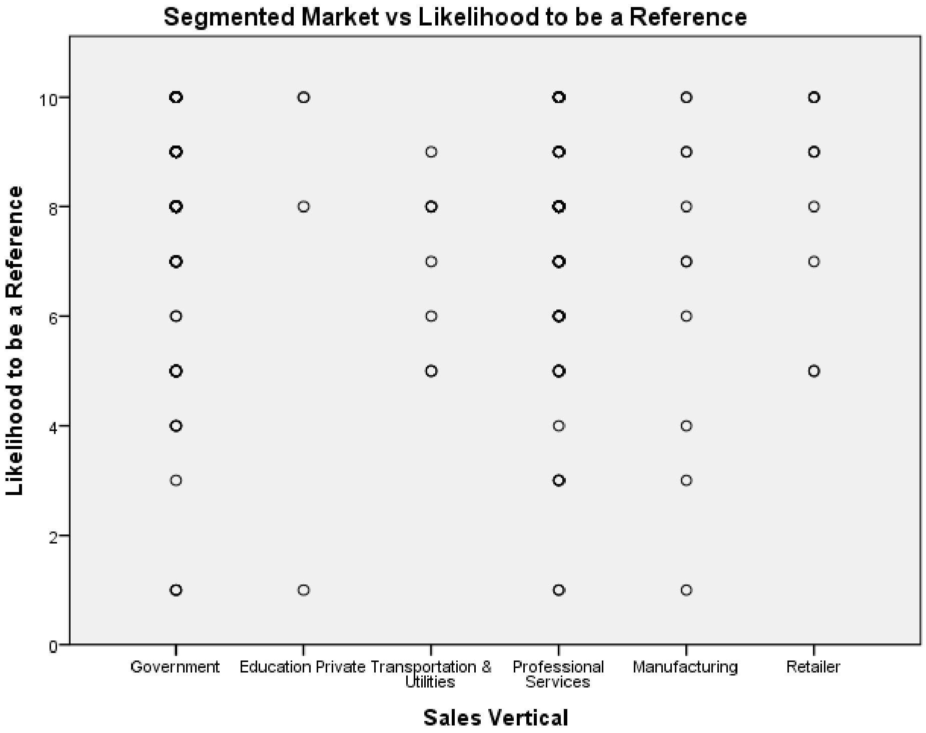


Figure 41: Market Segment vs. Reference Scatter

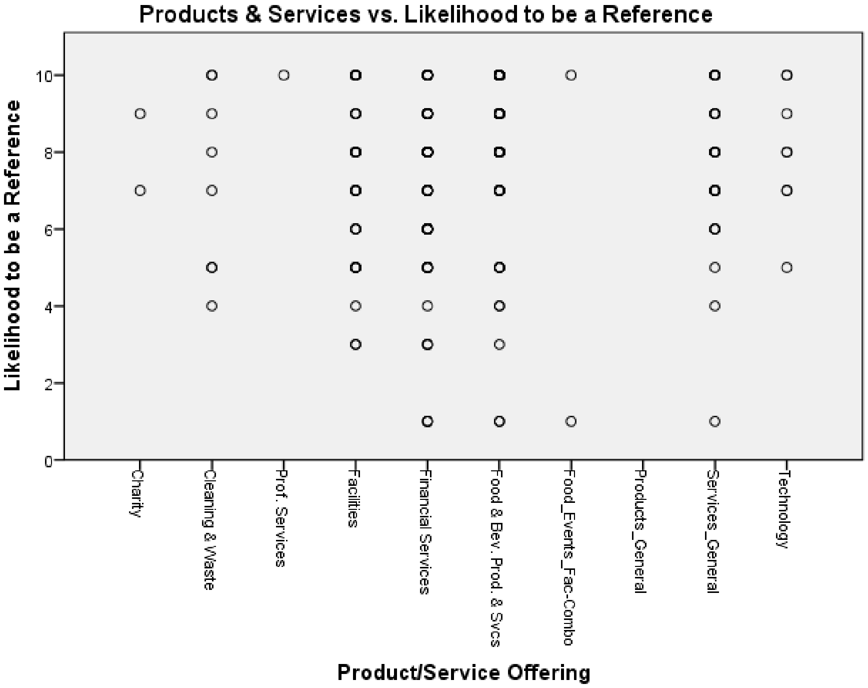


Figure 42: Product and Service vs. Reference Scatter

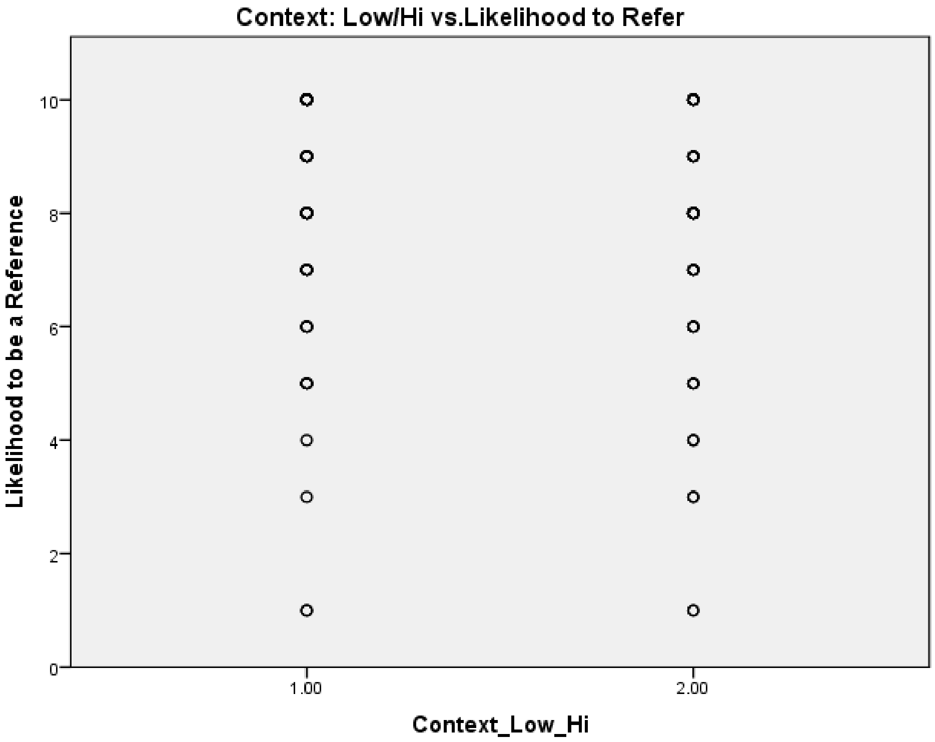


Figure 43: US, North/South vs. Reference Scatter

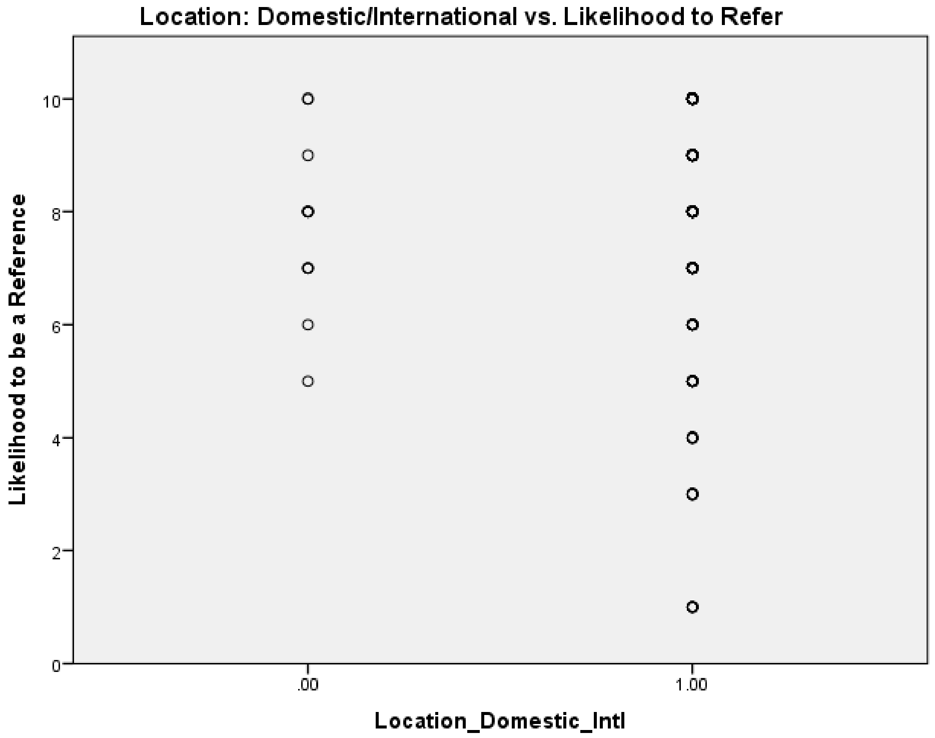


Figure 44: Location: Domestic/International vs. Reference Scatter

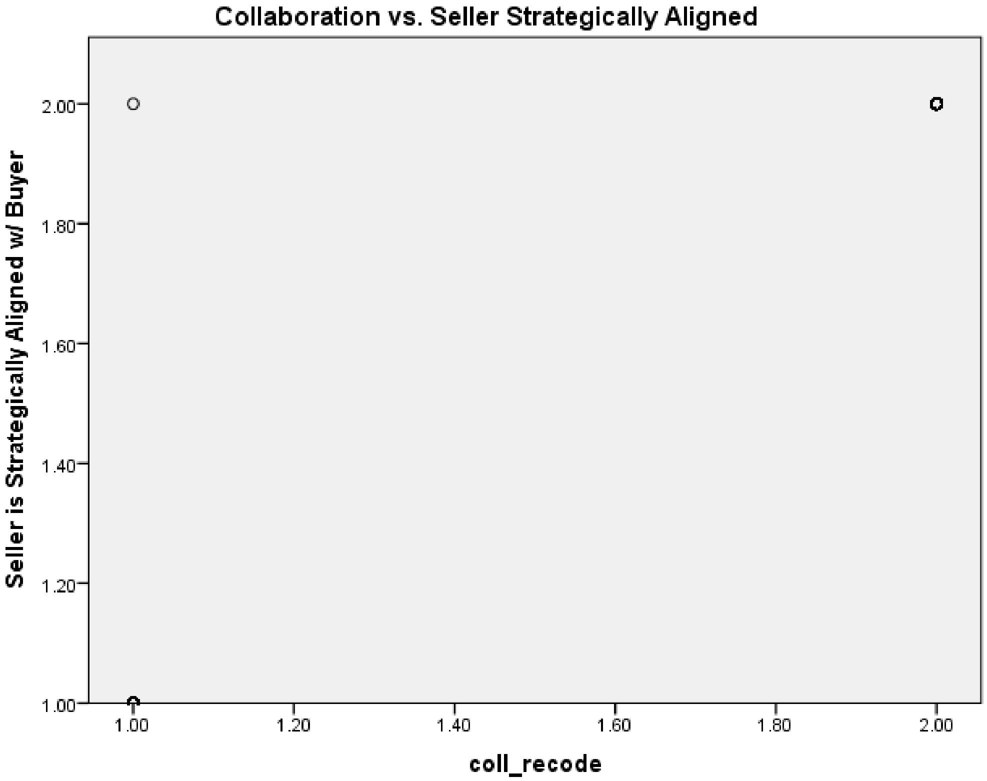


Figure 45: Collaboration vs. Strategically Aligned Scatter

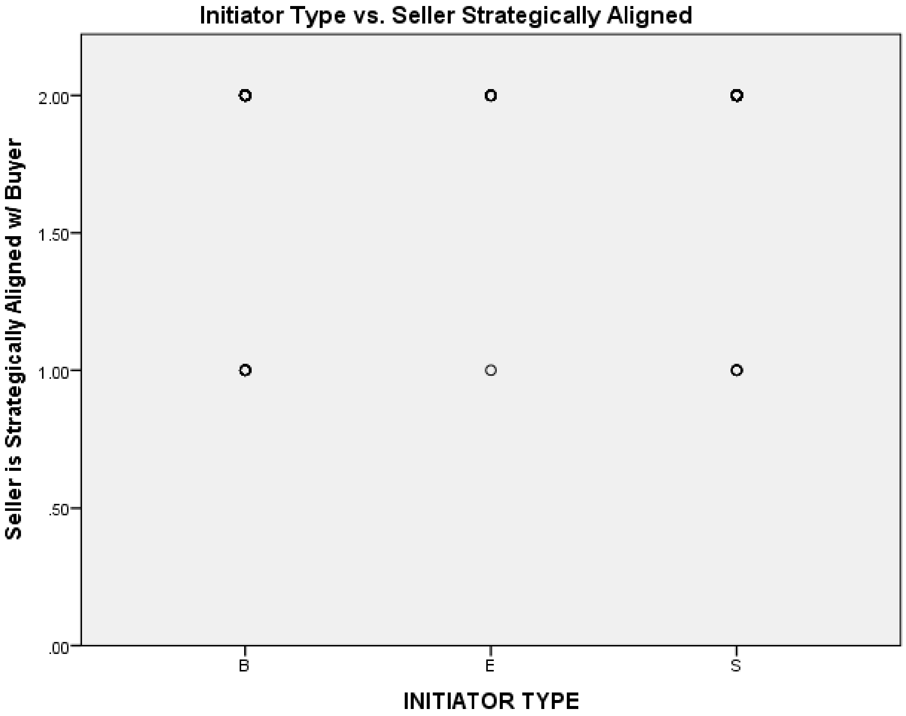


Figure 46: Initiator vs. Strategically Aligned Scatter

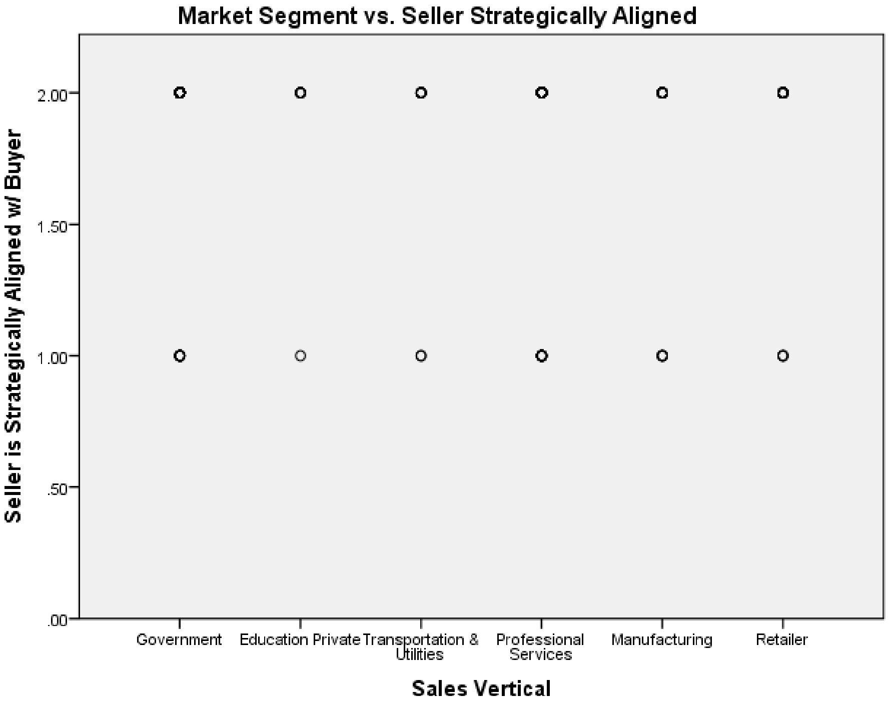


Figure 47: Market Segment vs. Strategically Aligned Scatter

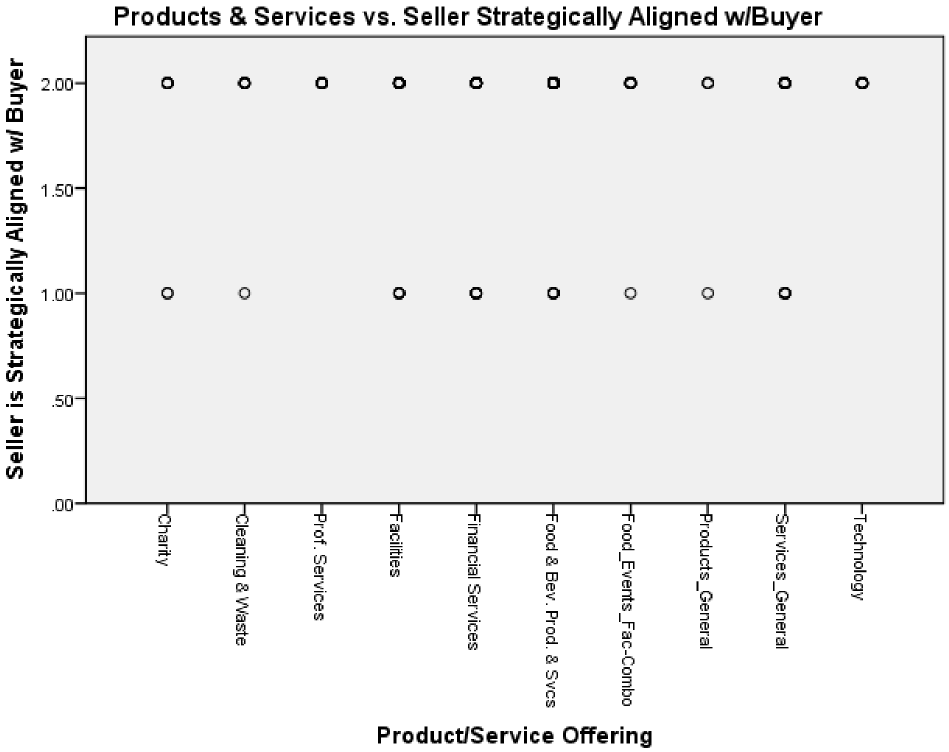


Figure 48: Product and Service vs. Strategically Aligned Scatter

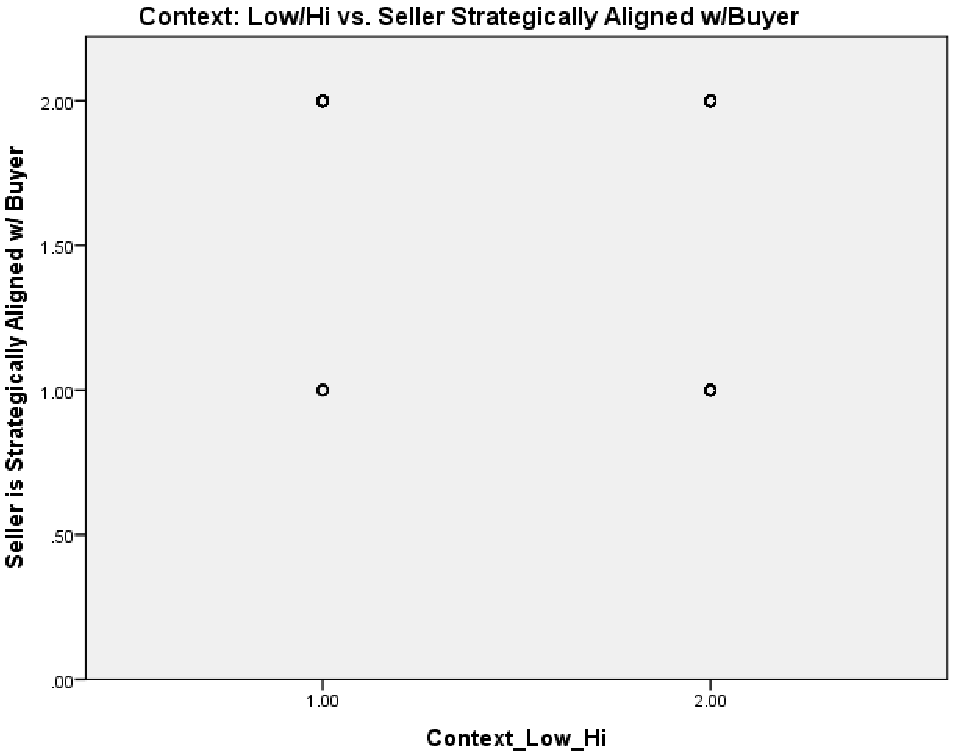


Figure 49: US, North/South vs. Strategically Aligned Scatter

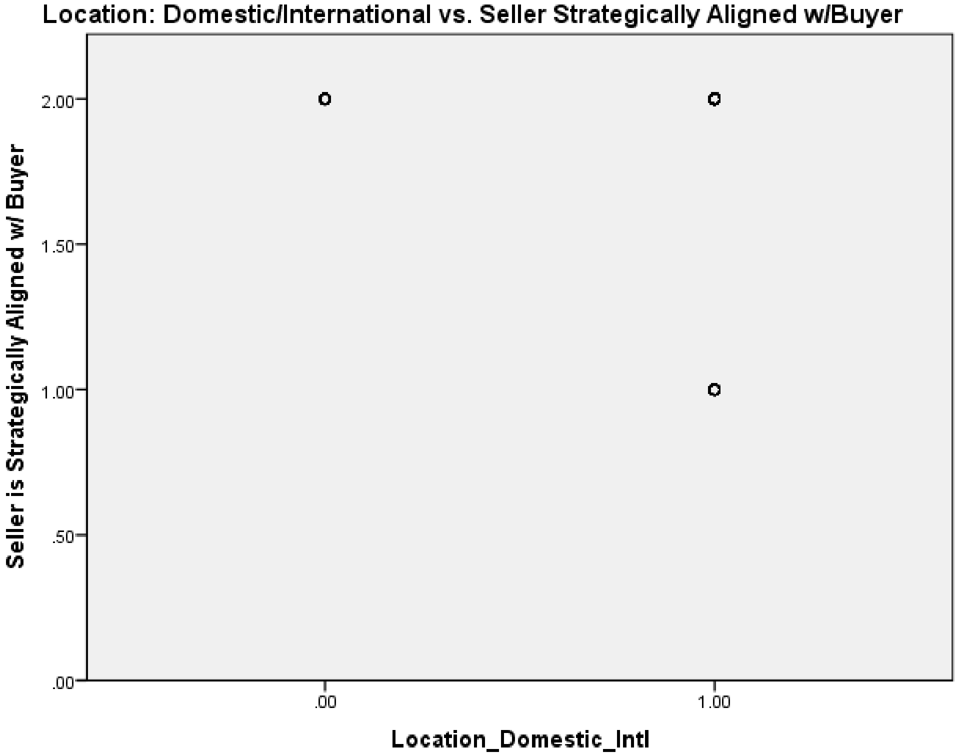


Figure 50: Location: Domestic/International vs. Seller is Strategically Aligned Scatter

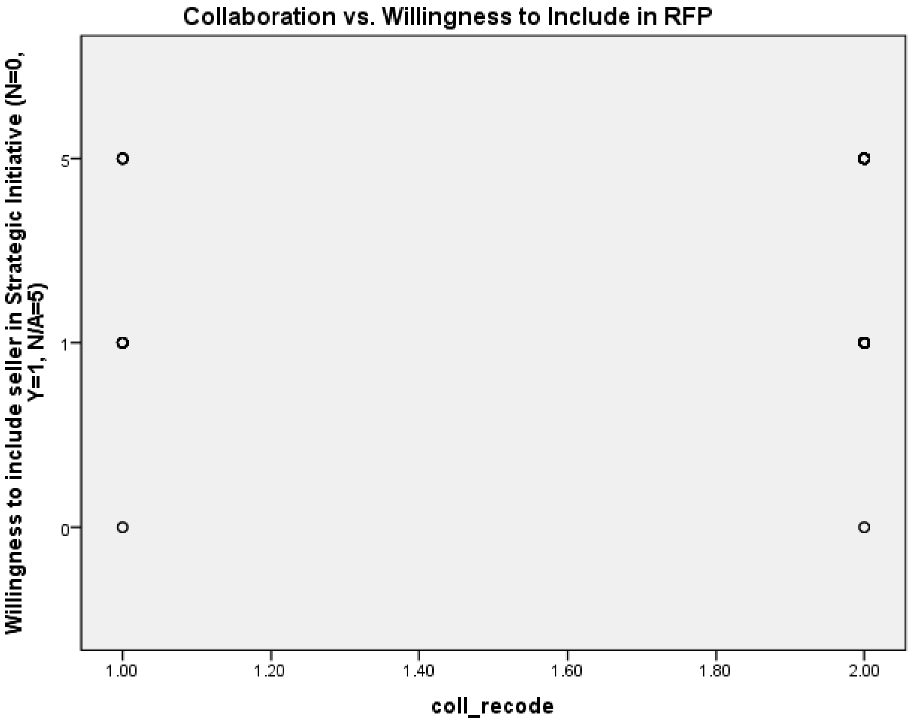


Figure 51: Collaboration vs. Willingness to Include Seller Scatter

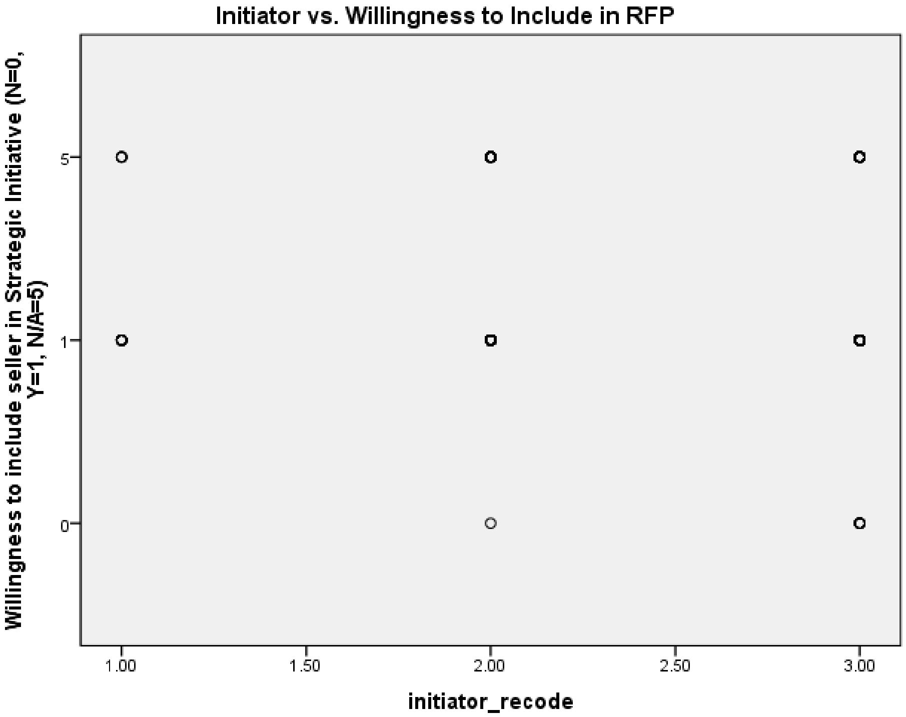


Figure 52: Initiator vs. Willingness to Include Seller Scatter

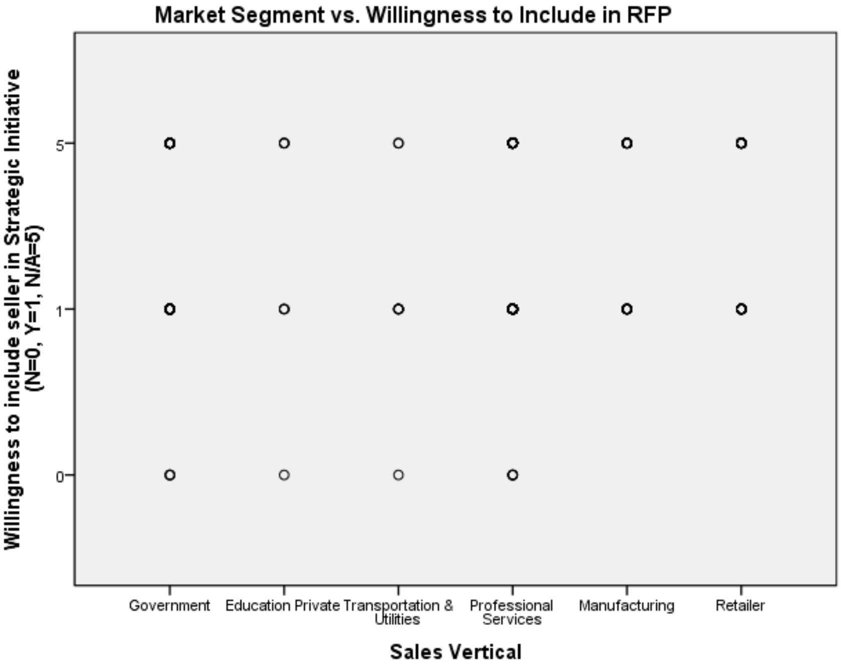


Figure 53: Market Segment vs. Willingness to Include Seller Scatter

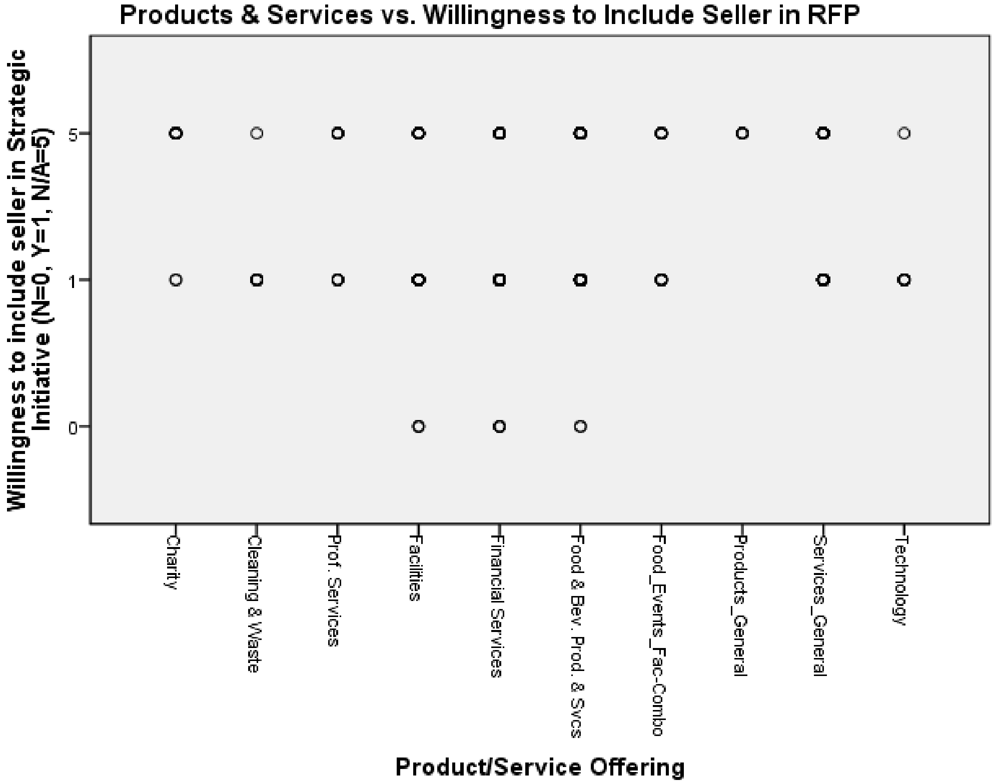


Figure 54: Product and Service vs. Willingness to Include Seller Scatter

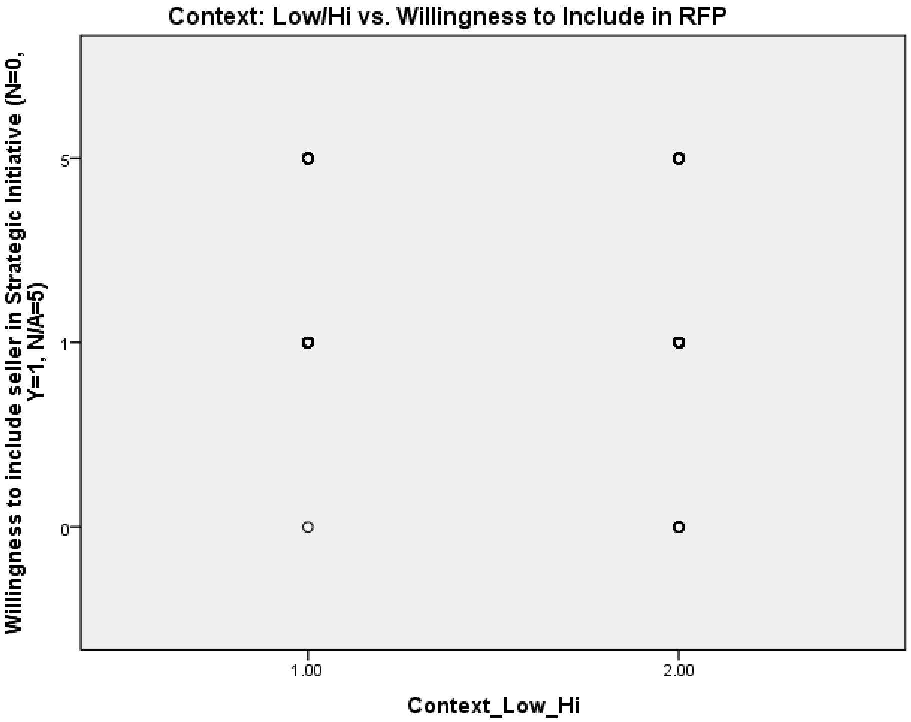


Figure 55: US, North/South vs. Willingness to Include Seller Scatter

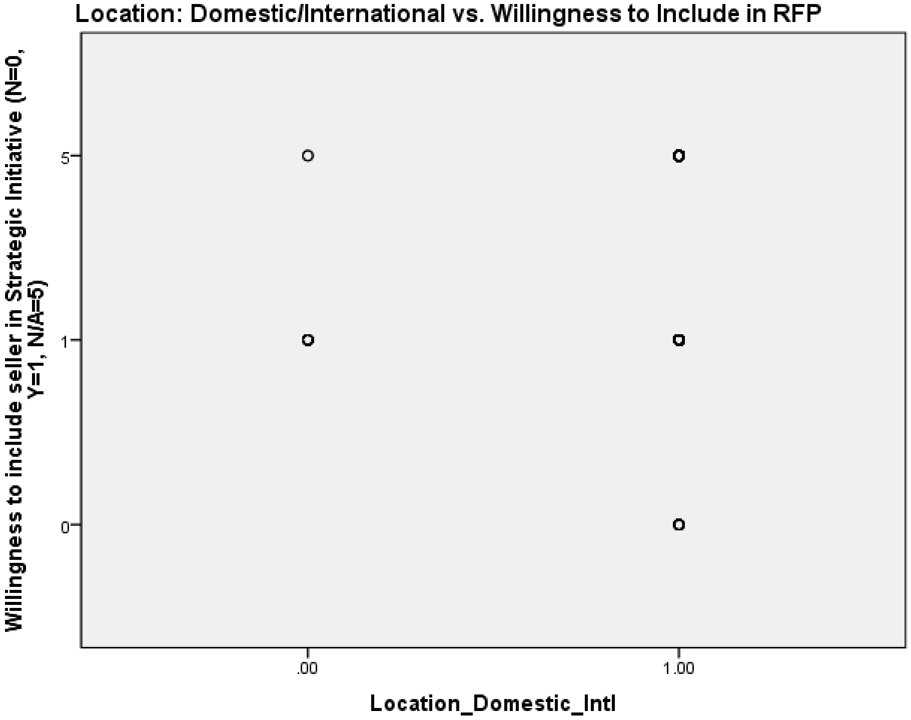


Figure 56: Location: Domestic/International vs. Willingness to Include Seller Scatter

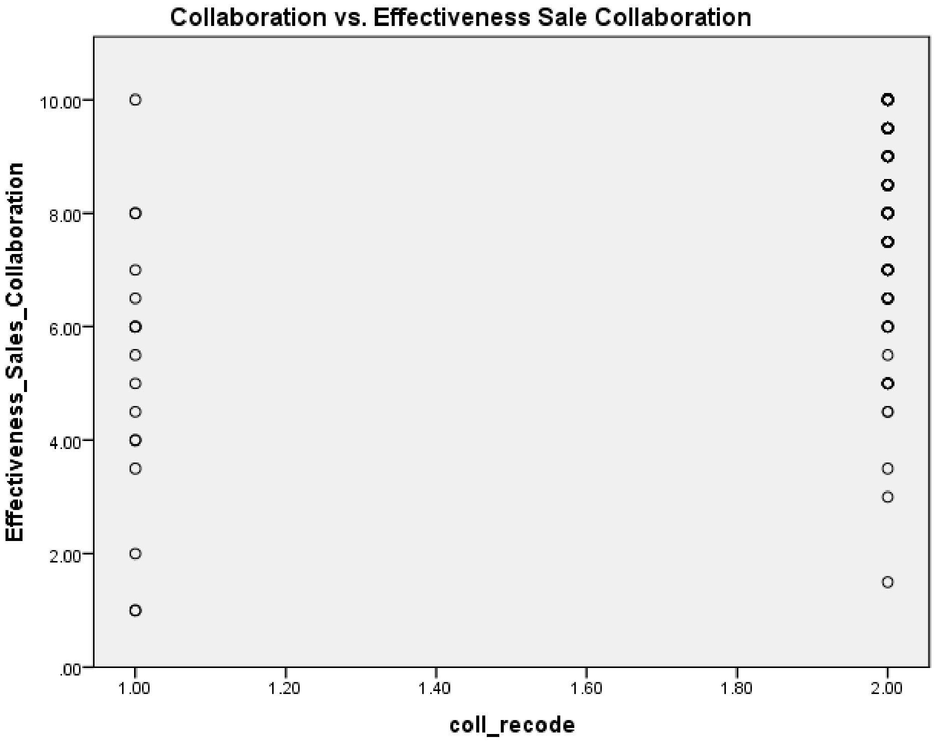


Figure 57: Collaboration vs. Effectiveness of Sales Collaboration Scatter

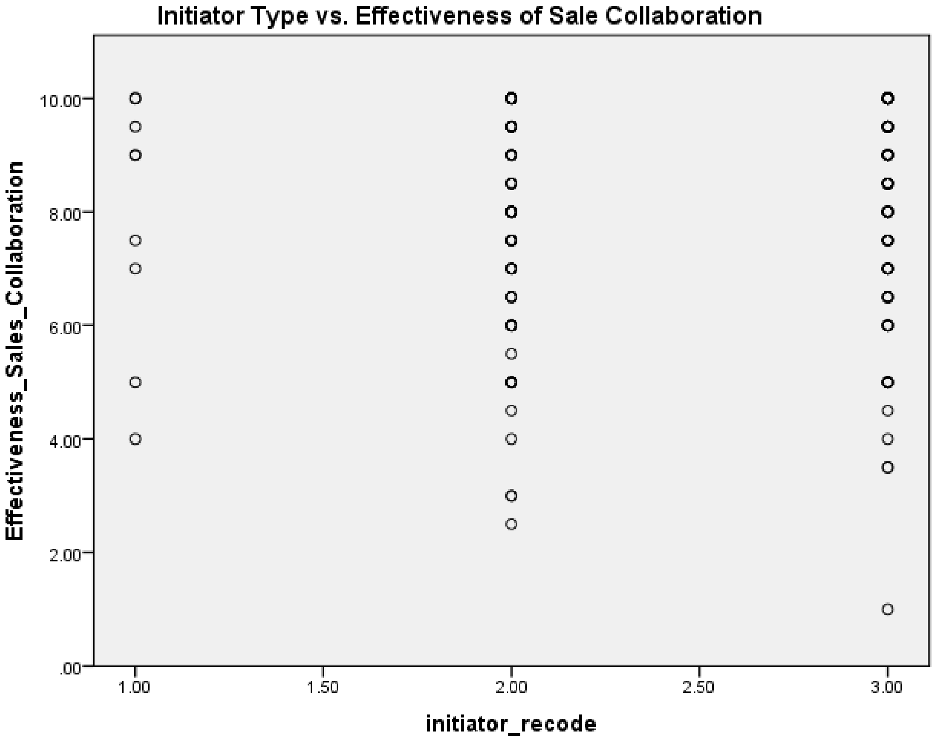


Figure 58: Initiator vs. Effectiveness of Sales Collaboration Scatter

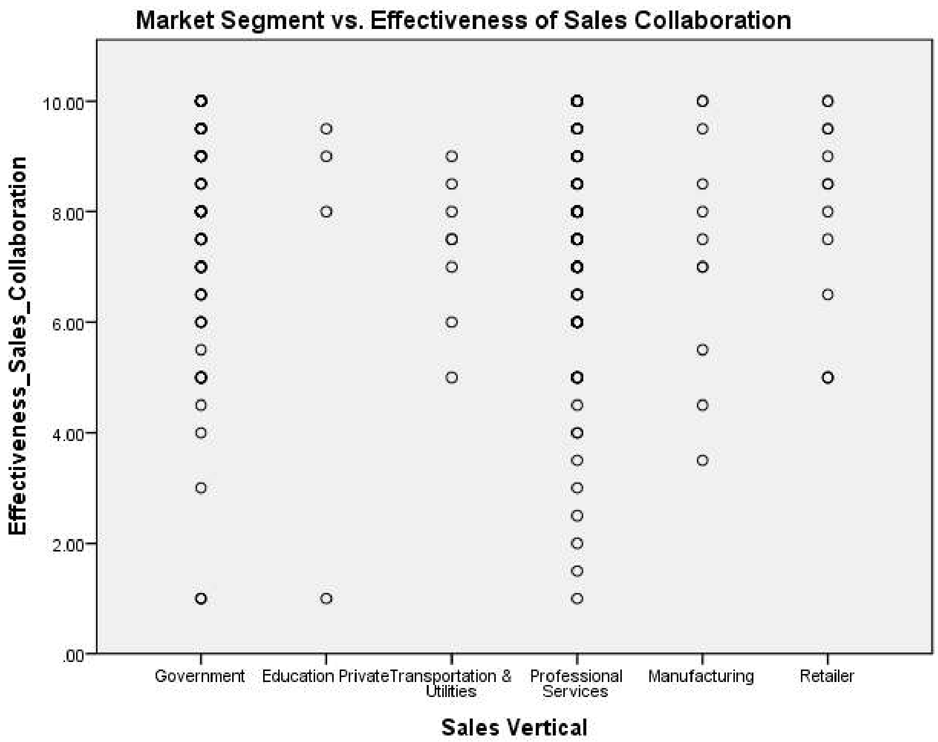


Figure 59: Market Segment vs. Effectiveness of Sales Collaboration Scatter

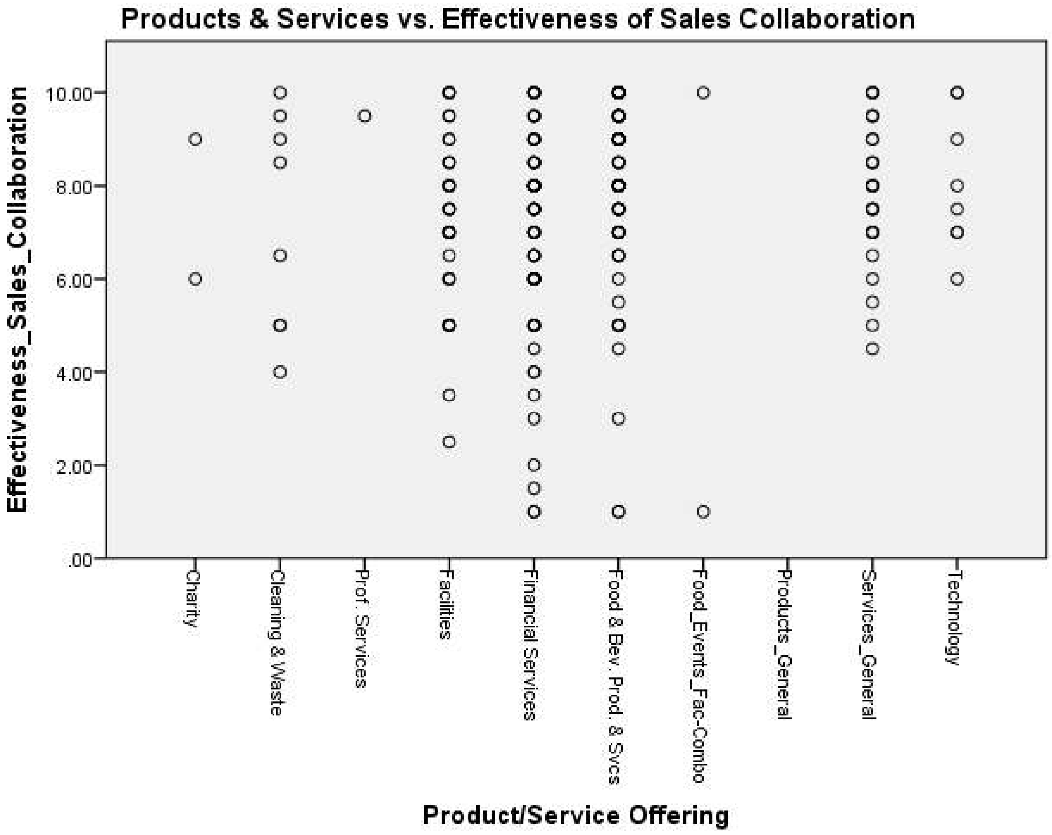


Figure 60: Product and Service vs. Effectiveness of Sales Collaboration Scatter

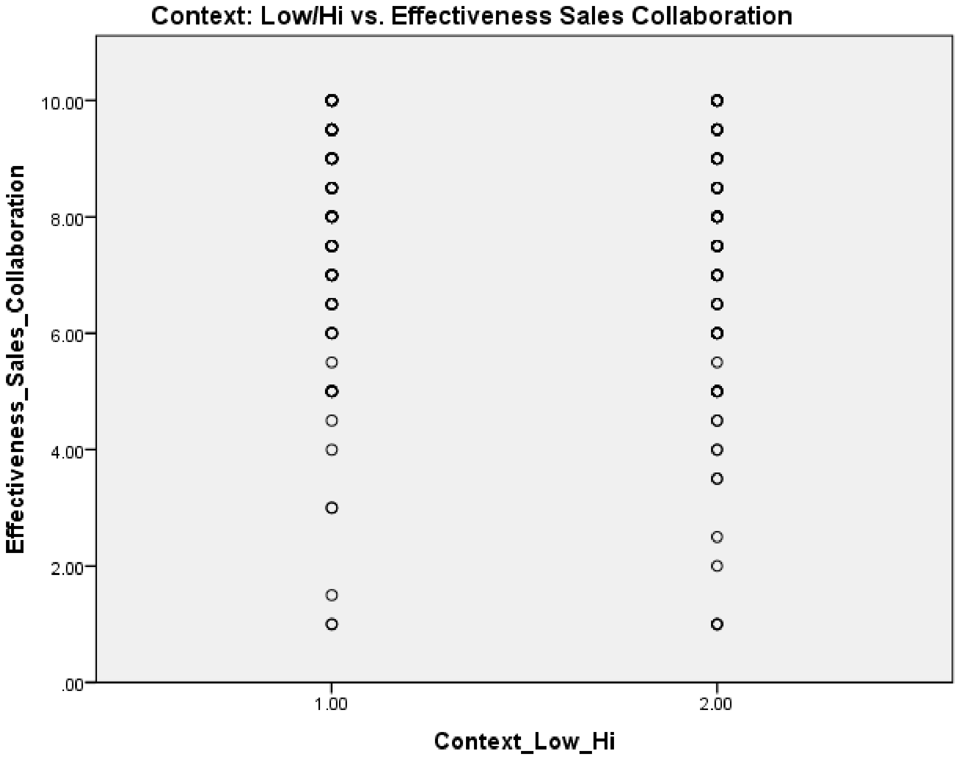


Figure 61: US North/South vs. Effectiveness of Sales Collaboration, Scatter

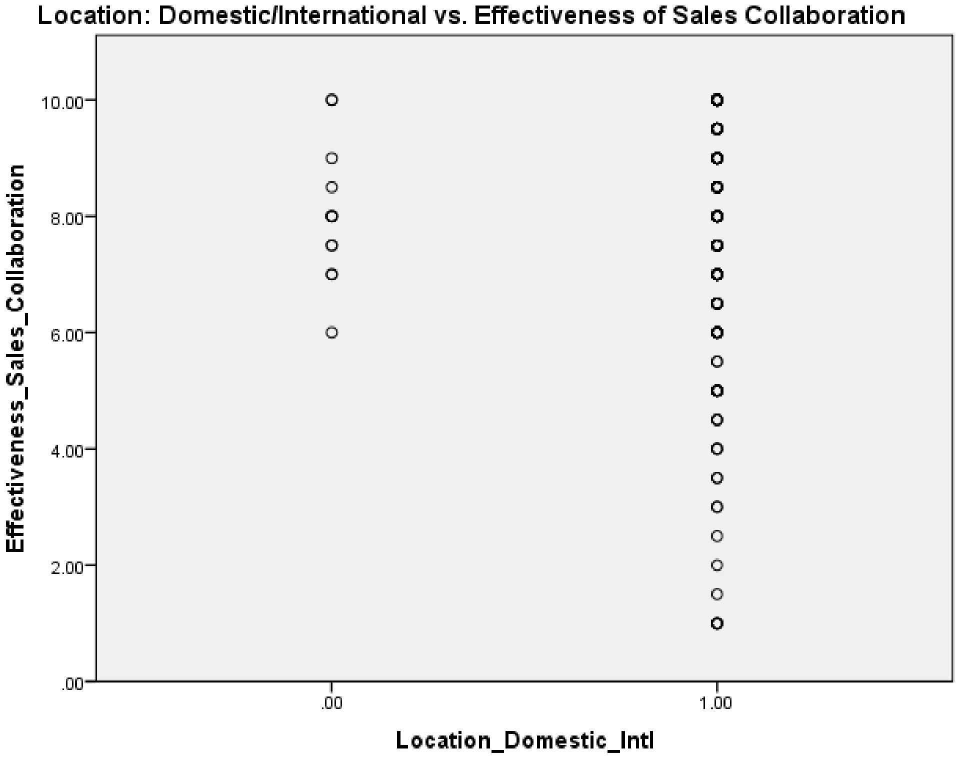


Figure 62: Location: Domestic/International vs. Effectiveness of Sales Collaboration Scatter

Table 31: Collaboration vs. Likelihood to Renew, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.440[a]	.194	.189	1.871

a. Predictors: (Constant), Collaboration_Dummy=YES

Table 32: Collaboration vs. Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	130.350	1	130.350	37.249	.000[b]
	Residual	542.415	155	3.499		
	Total	672.764	156			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Collaboration_Dummy=YES

Table 33: Collaboration vs. Likelihood to Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.118	.454		11.280	.000
	Collaboration_Dummy=YES	2.932	.480	.440	6.103	.000

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 34: Initiator vs. Likelihood to Renew, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.177[a]	.031	.018	2.069

a. Predictors: (Constant), Initiator=S, Initiator=E, Initiator=B

Table 35: Initiator vs. Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.863	3	10.288	2.403	.068[b]
	Residual	950.504	222	4.282		
	Total	981.367	225			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Initiator=S, Initiator=E, Initiator=B

Table 36: Initiator vs. Likelihood to Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.947	.274		25.349	.000
	Initiator=B	.719	.383	.152	1.879	.061
	Initiator=E	.942	.742	.088	1.269	.206
	Initiator=S	.893	.343	.213	2.599	.010

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 37: Market Segment vs. Likelihood to Renew, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.248[a]	.062	.040	2.046

a. Predictors: (Constant), Professional_Svs_dmy, education_dmy, transp_util_dmy, retailer_dmy, Manuf_dmy

Table 38: Market Segment vs. Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.466	5	12.093	2.889	.015[b]
	Residual	920.901	220	4.186		
	Total	981.367	225			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Professional_Svs_dmy, education_dmy, transp_util_dmy, retailer_dmy, Manuf_dmy

Table 39: Market Segment, Likelihood to Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.692	.150		51.136	.000

	transp_util_dmy	-1.692	1.455	-.076	-1.163	.246
	Manuf_dmy	-.465	.461	-.066	-1.007	.315
	retailer_dmy	-.292	.549	-.035	-.531	.596
	education_dmy	-2.692	2.051	-.086	-1.312	.191
	Professional_Svs_dmy	-6.692	2.051	-.213	-3.262	.001

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 40: Products and Services Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319[a]	.102	.068	2.016

a. Predictors: (Constant), Products_Services_RFP=Technology, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Charity, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 41: Products and Services vs. Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.674	8	12.459	3.066	.003[b]
	Residual	881.693	217	4.063		
	Total	981.367	225			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Products_Services_RFP=Technology, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Charity, Products_Services_RFP=Food_Events_Facilities, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 42: Products and Services vs. Likelihood to Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	7.143	.762		9.375	.000
	Products_Services_RFP =Charity	-2.143	2.155	-.068	-.994	.321
	Products_Services_RFP =Cleaning_and_Waste_Svs	-.018	1.043	-.002	-.017	.986
	Products_Services_RFP =Consulting_and_Prof_Svs	1.857	2.155	.059	.862	.390
	Products_Services_RFP =Facilities	.092	.837	.016	.110	.912

	Products_Services_RFP =Financial Svs	-.293	.805	-.062	-.364	.716
	Products_Services_RFP =Food_Bev_Prod_Svs	.882	.794	.203	1.111	.268
	Products_Services_RFP =Food_Events_Facilities _Omit	-1.643	1.616	-.074	-1.017	.311
	Products_Services_RFP =Technology	1.373	.844	.227	1.628	.105

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 43: US, North/South vs. Likelihood to Renew, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.149[a]	.022	.018	2.108

a. Predictors: (Constant), Culture_So_Dummy2

Table 44 US, North/South vs. Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.277	1	21.277	4.787	.030[b]
	Residual	937.831	211	4.445		
	Total	959.108	212			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Culture_So_Dummy2

Table 45: US, North/South vs. Likelihood of Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.807	.193		40.394	.000
	Culture_So_Dummy2	-.637	.291	-.149	-2.188	.030

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 46: Location (Domestic vs. International) vs. Likelihood to Renew, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.079[a]	.006	-.001	1.892

a. Predictors: (Constant), Location_Domestic_Dummy1

Table 47: Location (Domestic vs. International) vs. Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.941	1	2.941	.822	.366[b]
	Residual	465.324	130	3.579		
	Total	468.265	131			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Location_Domestic_Dummy1

Table 48: Location (Domestic vs. International) vs. Likelihood to Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.308	.525		15.832	.000
	Location_Domestic_Dummy1	-.501	.553	-.079	-.906	.366

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 49: Collaboration vs. Likelihood to be a Reference, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426[a]	.181	.176	1.900

a. Predictors: (Constant), Collaboration_Dummy=YES

Table 50: Collaboration vs. Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	131.220	1	131.220	36.360	.000[b]
	Residual	591.864	164	3.609		
	Total	723.084	165			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Collaboration_

REFERENCE:COLLABORATION

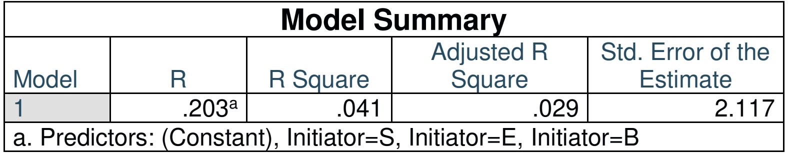
Table 51: Collaboration vs. Likelihood to be a Reference, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.235	.461		11.363	.000
	Collaboration_Dummy=YES	2.932	.486	.426	6.030	.000

a. Dependent Variable: Likelihood to be a Reference

Table 52: Initiator vs. Likelihood to be a Reference, Model Summary



Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.203[a]	.041	.029	2.117

a. Predictors: (Constant), Initiator=S, Initiator=E, Initiator=B

REFERENCE:INITIATOR

Table 53: Initiator vs. Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.086	3	15.362	3.427	.018[b]
	Residual	1066.806	238	4.482		
	Total	1112.893	241			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Initiator=S, Initiator=E, Initiator=B

Table 54: Initiator vs. Likelihood to be a Reference, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	7.152	.261		27.442	.000
	Initiator=B	.380	.371	.078	1.022	.308
	Initiator=E	.737	.752	.065	.980	.328
	Initiator=S	1.033	.334	.238	3.094	.002

a. Dependent Variable: Likelihood to be a Reference

Table 55: Market Segment vs. Likelihood to be a Reference, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.240[a]	.057	.037	2.108

a. Predictors: (Constant), Professional_Svs_dmy, education_dmy, transp_util_dmy, retailer_dmy, Manuf_dmy

Table 56: Market Segment vs. Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.843	5	12.769	2.873	.015[b]
	Residual	1049.049	236	4.445		
	Total	1112.893	241			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Professional_Svs_dmy, education_dmy, transp_util_dmy, retailer_dmy, Manuf_dmy

Table 57: Market Segment vs. Likelihood to be a Reference, Coefficients

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.

1	(Constant)	7.822	.148		52.728	.000
	transp_util_dmy	-2.322	1.498	-.098	-1.550	.123
	Manuf_dmy	-.640	.473	-.086	-1.352	.178
	retailer_dmy	.024	.603	.003	.040	.968
	education_dmy	.178	1.498	.008	.119	.905
	Professional_Svs_dmy	-6.822	2.114	-.204	-3.228	.001

a. Dependent Variable: Likelihood to be a Reference

Table 58: Products and Services vs. Likelihood to be a Reference, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.276[a]	.076	.045	2.100

a. Predictors: (Constant), Products_Services_RFP=Technology, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Charity, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 59: Products and Services vs. Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.879	8	10.610	2.405	.016[b]
	Residual	1028.013	233	4.412		
	Total	1112.893	241			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Products_Services_RFP=Technology, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Charity, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 60: Products and Services vs. Likelihood to be a Reference, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.143	.794		8.997	.000
	Products_Services_RFP=Charity	.857	1.684	.036	.509	.611

	Products_Services_RFP=Cleaning_and_Waste_Svs	.107	1.087	.009	.099	.922
	Products_Services_RFP=Consulting_and_Prof_Svs	2.857	2.246	.085	1.272	.205
	Products_Services_RFP=Facilities	.246	.868	.041	.284	.777
	Products_Services_RFP=Financial Svs	-.011	.834	-.002	-.013	.990
	Products_Services_RFP=Food_Bev_Prod_Svs	1.232	.825	.276	1.494	.137
	Products_Services_RFP=Food_Events_Facilities_Omit	-1.643	1.684	-.069	-.975	.330
	Products_Services_RFP=Technology	.690	.882	.106	.783	.434

a. Dependent Variable: Likelihood to be a Reference

Table 61: US, North/South vs. Likelihood to be a Reference, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.094[a]	.009	.004	2.180

a. Predictors: (Constant), Culture_So_Dummy2

Table 62: US, North/South vs. Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.643	1	9.643	2.029	.156[b]
	Residual	1078.907	227	4.753		
	Total	1088.550	228			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Culture_So_Dummy2

Table 63: US, North/South vs. Likelihood to be a Reference, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.898	.193		40.989	.000
	Culture_So_Dummy2	-.413	.290	-.094	-1.424	.156

a. Dependent Variable: Likelihood to be a Reference

Table 64: Location (Domestic vs. International) vs. Likelihood to be a Reference, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.018[a]	.000	-.007	2.115

a. Predictors: (Constant), Location_Domestic_Dummy1

Table 65: Location (Domestic vs. International) vs. Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.197	1	.197	.044	.834[b]
	Residual	621.987	139	4.475		
	Total	622.184	140			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Location_Domestic_Dummy1

Table 66: Location (Domestic vs. International) vs. Likelihood to be a Reference, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.769	.587		13.242	.000
	Location_Domestic_Dummy 1	.129	.616	.018	.210	.834

a. Dependent Variable: Likelihood to be a Reference

Table 67: Collaboration vs. Effectiveness of Sales Collaboration, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.451[a]	.204	.199	1.74364

a. Predictors: (Constant), Collaboration_Dummy=YES

Table 68: Collaboration vs. Effectiveness of Sales Collaboration, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129.063	1	129.063	42.451	.000[b]
	Residual	504.686	166	3.040		
	Total	633.749	167			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Collaboration_Dummy=YES

Table 69: Collaboration vs. Effectiveness of Sales Collaboration, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.176	.423		12.241	.000
	Collaboration_Dummy=YES	2.906	.446	.451	6.515	.000

a. Dependent Variable: Effectiveness_Sales_Collaboration

Table 70: Initiator vs. Effectiveness of Sales Collaboration, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.033[a]	.001	-.007	2.01794

a. Predictors: (Constant), Initiator=E, Initiator=B

Table 71: Initiator vs. Effectiveness of Sales Collaboration, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.216	3	13.739	3.501	.016[b]
	Residual	957.533	244	3.924		
	Total	998.749	247			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Initiator=S, Initiator=E, Initiator=B

Table 72: Initiator vs. Effectiveness of Sales Collaboration, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.044	.240		29.322	.000
	Initiator=B	.502	.344	.110	1.461	.145
	Initiator=E	.845	.703	.079	1.202	.230
	Initiator=S	.984	.308	.243	3.198	.002

a. Dependent Variable: Effectiveness_Sales_Collaboration

Table 73: Market Segment vs. Effectiveness of Sales Collaboration, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.239[a]	.057	.038	1.97261

a. Predictors: (Constant), Professional_Svs_dmy, education_dmy, transp_util_dmy, retailer_dmy, Manuf_dmy

Table 74: Market Segment: Effectiveness of Sales Collaboration ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.084	5	11.417	2.934	.014[b]
	Residual	941.665	242	3.891		
	Total	998.749	247			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Professional_Svs_dmy, education_dmy, transp_util_dmy, retailer_dmy, Manuf_dmy

Table 75: Market Segment vs. Effectiveness of Sales Collaboration, Coefficients

Coefficients^{a}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.728	.137		56.230	.000
	transp_util_dmy	-1.978	1.402	-.088	-1.411	.159
	Manuf_dmy	-.524	.442	-.074	-1.183	.238
	retailer_dmy	-.161	.528	-.019	-.306	.760
	education_dmy	-.228	1.402	-.010	-.163	.871
	Professional_Svs_dmy	-6.728	1.977	-.212	-3.403	.001

a. Dependent Variable: Effectiveness_Sales_Collaboration

Table 76: Products and Services vs. Effectiveness of Sales Collaboration, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.282^{a}	.080	.049	1.96119

a. Predictors: (Constant), Products_Services_RFP=Technology, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Charity, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 77: Products and Services vs. Effectiveness of Sales Collaboration, ANOVA

ANOVA^{a}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	79.492	8	9.936	2.583	.010^{b}
	Residual	919.257	239	3.846		
	Total	998.749	247			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Products_Services_RFP=Technology, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Charity, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 78: Products and Services vs. Effectiveness of Sales Collaboration, Coefficients

Coefficients^{a}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.143	.741		9.636	.000
	Products_Services_RFP=Charity	.357	1.572	.016	.227	.821
	Products_Services_RFP=Cleaning_and_Waste_Svs	.045	1.015	.004	.044	.965
	Products_Services_RFP=Consulting_and_Prof_Svs	2.357	2.097	.074	1.124	.262
	Products_Services_RFP=Facilities	.154	.808	.027	.191	.849
	Products_Services_RFP=Financial Svs	-.121	.777	-.027	-.156	.876
	Products_Services_RFP=Food_Bev_Prod_Svs	1.024	.770	.245	1.330	.185
	Products_Services_RFP=Food_Events_Facilities_Omit	-1.643	1.572	-.073	-1.045	.297
	Products_Services_RFP=Technology	.986	.821	.163	1.202	.231

a. Dependent Variable: Effectiveness_Sales_Collaboration

Table 79: US, North/South vs. Effectiveness of Sales Collaboration, Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.115[a]	.013	.009	2.03805

a. Predictors: (Constant), Culture_So_Dummy2

Table 80: US, North/South vs. Effectiveness of Sales Collaboration, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.896	1	12.896	3.105	.079[b]
	Residual	967.800	233	4.154		
	Total	980.696	234			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Culture_North_South

Table 81: US, North/South vs. Effectiveness of Sales Collaboration, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.285	.408		20.287	.000
	Culture_North_South	-.472	.268	-.115	-1.762	.079

a. Dependent Variable: Effectiveness_Sales_Collaboration

Table 82: Location (Domestic vs. International) vs. Effectiveness of Sales Collaboration, ANOVA

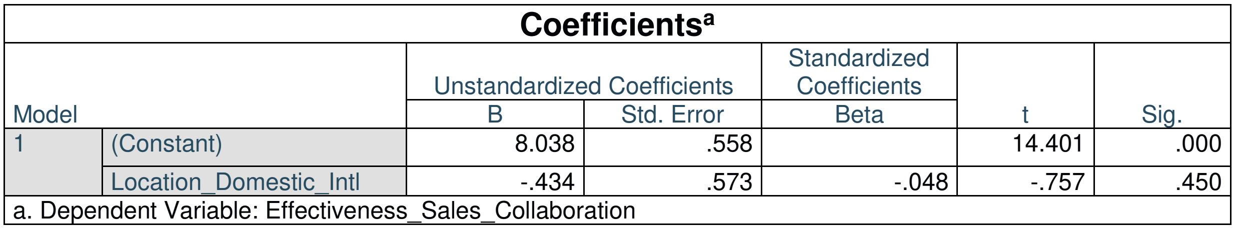
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.322	1	2.322	.573	.450[b]
	Residual	996.427	246	4.051		
	Total	998.749	247			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Location_Domestic_Intl

Table 83: Location (Domestic vs. International) vs. Effectiveness of Sales Collaboration, Coefficients



Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.038	.558		14.401	.000
	Location_Domestic_Intl	-.434	.573	-.048	-.757	.450

a. Dependent Variable: Effectiveness_Sales_Collaboration

Bivariate Analysis: Categorical DVs (DV3 and DV4)

Table 84: Collaboration – Strategically Aligned, Crosstab

Seller is Strategically Aligned w/ Buyer * coll_recode Crosstabulation

			coll_recode		
			no	YES	Total
Seller is Strategically Aligned w/ Buyer	No	Count	29	0	29
		% within Seller is Strategically Aligned w/ Buyer	100.0%	0.0%	100.0%
		% within coll_recode	96.7%	0.0%	10.9%
		% of Total	10.9%	0.0%	10.9%
	Yes	Count	1	235	236
		% within Seller is Strategically Aligned w/ Buyer	0.4%	99.6%	100.0%
		% within coll_recode	3.3%	100.0%	89.1%
		% of Total	0.4%	88.7%	89.1%
Total		Count	30	235	265
		% within Seller is Strategically Aligned w/ Buyer	11.3%	88.7%	100.0%
		% within coll_recode	100.0%	100.0%	100.0%
		% of Total	11.3%	88.7%	100.0%

Table 85: Collaboration – Strategically Aligned, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	255.081[a]	1	.000		
Continuity Correction[b]	245.259	1	.000		
Likelihood Ratio	174.256	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	254.119	1	.000		
N of Valid Cases	265				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.28.

b. Computed only for a 2x2 table

Table 86: Collaboration – Strategically Aligned, Symmetric Measures

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	.981			.000
	Cramer's V	.981			.000
Interval by Interval	Pearson's R	.981	.019	82.241	.000[c]
Ordinal by Ordinal	Spearman Correlation	.981	.019	82.241	.000[c]
N of Valid Cases		265			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 87: Initiator – Strategically Aligned, Crosstab

Seller is Strategically Aligned w/ Buyer * initiator_recode Crosstabulation

			initiator_recode			Total
			Equal Partner	Buyer	Seller	
Seller is Strategically Aligned w/ Buyer	No	Count	1	10	5	16
		% within Seller is Strategically Aligned w/ Buyer	6.3%	62.5%	31.3%	100.0%
		% within initiator_recode	9.1%	15.6%	4.9%	9.0%
		% of Total	0.6%	5.6%	2.8%	9.0%
	Yes	Count	10	54	97	161
		% within Seller is Strategically Aligned w/ Buyer	6.2%	33.5%	60.2%	100.0%
		% within initiator_recode	90.9%	84.4%	95.1%	91.0%
		% of Total	5.6%	30.5%	54.8%	91.0%
Total		Count	11	64	102	177
		% within Seller is Strategically Aligned w/ Buyer	6.2%	36.2%	57.6%	100.0%
		% within initiator_recode	100.0%	100.0%	100.0%	100.0%
		% of Total	6.2%	36.2%	57.6%	100.0%

Table 88: Initiator – Strategically Aligned, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.499[a]	2	.064
Likelihood Ratio	5.339	2	.069
Linear-by-Linear Association	3.262	1	.071
N of Valid Cases	177		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is .99.

Table 89: Initiator – Strategically Aligned, Symmetric Measures

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	.176			.064
	Cramer's V	.176			.064
Interval by Interval	Pearson's R	.136	.071	1.818	.071[c]
Ordinal by Ordinal	Spearman Correlation	.155	.072	2.074	.040[c]
N of Valid Cases		177			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 90: Market Segment – Strategically Aligned, Crosstab

Seller is Strategically Aligned w/ Buyer * Sales Vertical Crosstabulation										
			Sales Vertical						Total
			Government	Education Private	Transportation & Utilities	Professional Services	Manufacturing	Retailer	
Seller is Strategically Aligned w/ Buyer	No	Count	8	1	2	11	4	3	29
		% within Seller is Strategically Aligned w/ Buyer	27.6%	3.4%	6.9%	37.9%	13.8%	10.3%	100.0%
		% within Sales Vertical	7.2%	16.7%	22.2%	10.5%	26.7%	14.3%	10.9%
		% of Total	3.0%	0.4%	0.7%	4.1%	1.5%	1.1%	10.9%
	Yes	Count	103	5	7	94	11	18	238
		% within Seller is Strategically Aligned w/ Buyer	43.3%	2.1%	2.9%	39.5%	4.6%	7.6%	100.0%
		% within Sales Vertical	92.8%	83.3%	77.8%	89.5%	73.3%	85.7%	89.1%
		% of Total	38.6%	1.9%	2.6%	35.2%	4.1%	6.7%	89.1%
Total		Count	111	6	9	105	15	21	267
		% within Seller is Strategically Aligned w/ Buyer	41.6%	2.2%	3.4%	39.3%	5.6%	7.9%	100.0%
		% within Sales Vertical	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	41.6%	2.2%	3.4%	39.3%	5.6%	7.9%	100.0%

Table 91: Market Segment – Strategically Aligned, Chi-Square

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.080[a]	5	.215
Likelihood Ratio	5.994	5	.307
Linear-by-Linear Association	2.613	1	.106
N of Valid Cases	267		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .65.

Table 92: Market Segment – Strategically Aligned, Symmetric Measures

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	.163			.215
	Cramer's V	.163			.215
Interval by Interval	Pearson's R	-.099	.060	-1.621	.106[c]
Ordinal by Ordinal	Spearman Correlation	-.103	.061	-1.693	.092[c]
N of Valid Cases		267			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 93: Product and Service – Strategically Aligned, Crosstab

Seller is Strategically Aligned w/ Buyer * Product/Service Offering Crosstabulation

			Product/Service Offering										
			Charity	Cleaning & Waste	Prof. Services	Facilities	Financial Services	Food & Bev. Prod. & Svcs	Food_Events_Fac-Combo	Products_General	Services_General	Technology	Total
Seller is Strategically Aligned w/ Buyer	No	Count	2	1	0	5	7	6	1	1	6	0	29
		% within Seller is Strategically Aligned w/ Buyer	6.9%	3.4%	0.0%	17.2%	24.1%	20.7%	3.4%	3.4%	20.7%	0.0%	100.0%
		% within Product/Service Offering	25.0%	11.1%	0.0%	12.5%	15.9%	5.7%	10.0%	25.0%	21.4%	0.0%	10.9%
		% of Total	0.7%	0.4%	0.0%	1.9%	2.6%	2.2%	0.4%	0.4%	2.2%	0.0%	10.9%
	Yes	Count	6	8	11	35	37	99	9	3	22	8	238
		% within Seller is Strategically Aligned w/ Buyer	2.5%	3.4%	4.6%	14.7%	15.5%	41.6%	3.8%	1.3%	9.2%	3.4%	100.0%
		% within Product/Service Offering	75.0%	88.9%	100.0%	87.5%	84.1%	94.3%	90.0%	75.0%	78.6%	100.0%	89.1%
		% of Total	2.2%	3.0%	4.1%	13.1%	13.9%	37.1%	3.4%	1.1%	8.2%	3.0%	89.1%
Total		Count	8	9	11	40	44	105	10	4	28	8	267
		% within Seller is Strategically Aligned w/ Buyer	3.0%	3.4%	4.1%	15.0%	16.5%	39.3%	3.7%	1.5%	10.5%	3.0%	100.0%
		% within Product/Service Offering	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	3.0%	3.4%	4.1%	15.0%	16.5%	39.3%	3.7%	1.5%	10.5%	3.0%	100.0%

Table 94: Product and Service – Strategically Aligned, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.172[a]	9	.204
Likelihood Ratio	13.417	9	.145
Linear-by-Linear Association	.006	1	.940
N of Valid Cases	267		

a. 10 cells (50.0%) have expected count less than 5. The minimum expected count is .43.

Table 95: Product and Service – Strategically Aligned, Symmetric Measures

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Nominal by Nominal	Phi	.214			.204
	Cramer's V	.214			.204
Interval by Interval	Pearson's R	-.005	.070	-.076	.940[c]
Ordinal by Ordinal	Spearman Correlation	.012	.067	.192	.848[c]
N of Valid Cases		267			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 96: US, North/South – Strategically Aligned, Crosstab

Seller is Strategically Aligned w/ Buyer * Culture_North_South Crosstabulation

Count

		Culture_North_South		Total
		1.00	2.00	
Seller is Strategically Aligned w/ Buyer	No	6	23	29
	Yes	114	111	225
Total		120	134	254

Table 97: US, North/South – Strategically Aligned, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	9.262[a]	1	.002		
Continuity Correction[b]	8.098	1	.004		
Likelihood Ratio	9.901	1	.002		
Fisher's Exact Test				.003	.002
Linear-by-Linear Association	9.226	1	.002		
N of Valid Cases	254				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.70.

b. Computed only for a 2x2 table

Table 98: US, North/South ─ Strategically Aligned, Symmetric Measures

Symmetric Measures					
		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Interval by Interval	Pearson's R	-.191	.054	-3.088	.002[c]
Ordinal by Ordinal	Spearman Correlation	-.191	.054	-3.088	.002[c]
N of Valid Cases		254			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 99: Location: Domestic vs. International – Strategically Aligned, Crosstab

Seller is Strategically Aligned w/ Buyer * Location_Domestic_Intl Crosstabulation

Count

		Location_Domestic_Intl		Total
		.00	1.00	
Seller is Strategically Aligned w/ Buyer	No	0	29	29
	Yes	13	225	238
Total		13	254	267

Table 100: Location: Domestic vs. International – Strategically Aligned, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.665[a]	1	.197		
Continuity Correction[b]	.695	1	.405		
Likelihood Ratio	3.069	1	.080		
Fisher's Exact Test				.372	.216
Linear-by-Linear Association	1.659	1	.198		
N of Valid Cases	267				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.41.

b. Computed only for a 2x2 table

Table 101: Location: Domestic vs. International – Strategically Aligned, Symmetric Measures

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Interval by Interval	Pearson's R	-.079	.013	-1.290	.198[c]
Ordinal by Ordinal	Spearman Correlation	-.079	.013	-1.290	.198[c]
N of Valid Cases		267			

a. Not assuming the null hypothesis.

Table 102: Notes

Notes		
Output Created		02-JUL-2018 12:27:30
Comments		
Input	Data	C:\Users\George\Documents\Collaboration_6_23.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	431
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=strategic_aligned_recode BY Location_Domestic_Intl /FORMAT=AVALUE TABLES /STATISTICS=CHISQ CORR /CELLS=COUNT /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.03
	Dimensions Requested	2
	Cells Available	524245

Table 103: Collaboration – Willingness to Include Seller, Crosstab

Willingness to include seller in Strategic Initiative (N=0, Y=1) * Collaboration=YES Crosstabulation

Count

		Collaboration=YES		Total
		.00	1.00	
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	2	2	4
	1	16	15qASEDXZE DXES0	166
Total		18	152	170

```
CROSSTABS
  /TABLES=WillingnesstoincludesellerinStrategicInitiativeN0Y1NA5
BY Collaboration_Base_No_Dummy_2
    Collaboration_Yes_Dummy_3
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ PHI CORR
  /CELLS=COUNT
  /COUNT ROUND CELL.
```

Table 104: Collaboration – Willingness to Include Seller, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.721[a]	1	.010		
Continuity Correction[b]	3.134	1	.077		
Likelihood Ratio	4.047	1	.044		
Fisher's Exact Test				.056	.056
Linear-by-Linear Association	6.681	1	.010		
N of Valid Cases	170				

Table 105: Initiator – Willingness to Include Seller, Crosstab

Willingness to include seller in Strategic Initiative (N=0, Y=1, N/A=5) * INITIATOR TYPE Crosstabulation

Count

		INITIATOR TYPE			Total
		B	E	S	
Willingness to include seller in Strategic Initiative (N=0, Y=1, N/A=5)	0	1	0	6	7
	1	55	9	97	161
Total		56	9	103	168

Table 106: Initiator – Willingness to Include Seller, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.896[a]	2	.388
Likelihood Ratio	2.405	2	.300
N of Valid Cases	168		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .38.

Table 107: Market Segment – Willingness to Include Seller, Crosstab

Crosstab

Count

		Sales Vertical			
		Government	Education Private	Transportation & Utilities	Professional Services
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	3	1	1	4
	1	105	3	6	106
Total		108	4	7	110

Table 108: Market Segment – Willingness to Include Seller, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.280[a]	5	.098
Likelihood Ratio	6.203	5	.287
N of Valid Cases	260		

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .14.

Table 109: Market Segment – Willingness to Include Seller, Symmetric Measures

Symmetric Measures[c]

		Value	Approximate Significance
Nominal by Nominal	Phi	.189	.098
	Cramer's V	.189	.098
N of Valid Cases		260	

c. Correlation statistics are available for numeric data only.

Table 110: Products and Services – Willingness to Include Seller, Crosstab

Willingness to include seller in Strategic Initiative (N=0, Y=1) * Product/Service Offering Crosstabulation

Count

		Product/Service Offering			
		Charity	Cleaning & Waste	Prof. Services	Facilities
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	0	0	0	3
	1	2	9	5	42
Total		2	9	5	45

Table 111: Products and Services – Willingness to Include Seller, Crosstab (continued)

Willingness to include seller in Strategic Initiative (N=0, Y=1) * Product/Service Offering Crosstabulation

Count

		Product/Service Offering			
		Financial Services	Food & Bev. Prod. & Svcs	Food_Events_Fac-Combo	Services_General
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	4	2	0	0
	1	53	86	7	40
Total		57	88	7	40

Table 112: Products and Services – Willingness to Include Seller, Crosstab (continued)

Willingness to include seller in Strategic Initiative (N=0, Y=1) * Product/Service Offering Crosstabulation

Count

		Product/Service Offering	Total
		Technology	
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	0	9
	1	7	251
Total		7	260

Table 113: Product and Service – Willingness to Include Seller, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.422^a	8	.600
Likelihood Ratio	8.126	8	.421
Linear-by-Linear Association	2.105	1	.147
N of Valid Cases	260		

a. 11 cells (61.1%) have expected count less than 5. The minimum expected count is .07.

Table 114: Product and Service – Willingness to Include Seller, Symmetric Measures

Symmetric Measures				
		Value	Asymptotic Standard Error^a	Approximate T^b
Nominal by Nominal	Phi	.157		
	Cramer's V	.157		
Interval by Interval	Pearson's R	.090	.030	1.454
Ordinal by Ordinal	Spearman Correlation	.108	.043	1.738
N of Valid Cases		260		

Table 115: US, North/South – Willingness to Include Seller, Crosstab

Willingness to include seller in Strategic Initiative (N=0, Y=1) * Context_Low_Hi Crosstabulation				
Count				
		Context_Low_Hi		Total
		North	South	
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	1	8	9
	1	128	112	240
Total		129	120	249

Table 116: US North/South – Willingness to Include Seller, Chi-Square

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.194^a	1	.013		
Continuity Correction^b	4.618	1	.032		
Likelihood Ratio	6.940	1	.008		
Fisher's Exact Test				.016	.014
Linear-by-Linear Association	6.169	1	.013		
N of Valid Cases	249				
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.34.					
b. Computed only for a 2x2 table					

Table 117: US North/South – Willingness to Include Seller, Symmetric Measures

Symmetric Measures					
		Value	Asymptotic Standard Error^a	Approximate T^b	Approximate Significance
Interval by Interval	Pearson's R	.079	.050	1.562	.119^c
Ordinal by Ordinal	Spearman Correlation	.063	.051	1.239	.216^c
N of Valid Cases		390			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

Table 118: Location (Domestic vs. International) – Willingness to Include Seller, Crosstab

Willingness to include seller in Strategic Initiative (N=0, Y=1) * Location_Domestic_Intl Crosstabulation

Count

		Location_Domestic_Intl		Total
		.00	1.00	
Willingness to include seller in Strategic Initiative (N=0, Y=1)	0	0	9	9
	1	11	240	251
Total		11	249	260

Table 119: Location (Domestic vs. International) – Willingness to Include Seller, Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.412[a]	1	.521		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.792	1	.373		
Fisher's Exact Test				1.000	.673
Linear-by-Linear Association	.410	1	.522		
N of Valid Cases	260				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is .38.

b. Computed only for a 2x2 table

Table 120: Location (Domestic vs. International) – Willingness to Include Seller, Symmetric Measures

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Interval by Interval	Pearson's R	.074	.039	1.480	.140[c]
Ordinal by Ordinal	Spearman Correlation	.068	.038	1.368	.172[c]
N of Valid Cases		403			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

APPENDIX 5: Multivariate Analysis

Table 121: Hierarchical Regression ─ Likelihood to Renew, Model Summary

Model Summary[e]

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.221[a]	.049	.036	1.850	.049	3.937	1	77	.051
2	.296[b]	.088	.038	1.848	.039	1.051	3	74	.375
3	.378[c]	.143	.071	1.816	.055	2.316	2	72	.106
4	.556[d]	.309	.171	1.715	.167	2.238	7	65	.042

a. Predictors: (Constant), Collaboration_Dummy=YES

b. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S

c. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy

d. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Technology, Products_Services_RFP=Facilities, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

e. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 122: Hierarchical Regression ─ Likelihood to Renew, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.469	1	13.469	3.937	.051[b]
	Residual	263.417	77	3.421		
	Total	276.886	78			
2	Regression	24.231	4	6.058	1.774	.143[c]
	Residual	252.655	74	3.414		
	Total	276.886	78			
3	Regression	39.503	6	6.584	1.997	.077[d]
	Residual	237.383	72	3.297		
	Total	276.886	78			
4	Regression	85.610	13	6.585	2.238	.017[e]
	Residual	191.276	65	2.943		
	Total	276.886	78			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Collaboration_Dummy=YES

c. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S

d. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy

e. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Technology, Products_Services_RFP=Facilities, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 123: Hierarchical Regression ─ Likelihood to Renew, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	6.250	.925		6.758	.000					
	Collaboration_Dummy=YES	1.883	.949	.221	1.984	.051	.221	.221	.221	1.000	1.000
2	(Constant)	5.584	1.015		5.503	.000					
	Collaboration_Dummy=YES	1.803	.959	.211	1.879	.064	.221	.213	.209	.977	1.024
	Initiator=E	.728	.849	.110	.857	.394	-.030	.099	.095	.743	1.347
	Initiator=S	.890	.563	.238	1.582	.118	.102	.181	.176	.546	1.832
	Initiator=B	1.047	.646	.234	1.620	.109	.086	.185	.180	.589	1.699
3	(Constant)	6.142	1.047		5.865	.000					
	Collaboration_Dummy=YES	1.471	.956	.172	1.538	.128	.221	.178	.168	.950	1.053
	Initiator=E	.455	.858	.069	.530	.598	-.030	.062	.058	.702	1.425
	Initiator=S	.751	.564	.201	1.331	.187	.102	.155	.145	.524	1.908
	Initiator=B	.803	.663	.180	1.211	.230	.086	.141	.132	.540	1.851
	Manuf_dmy	-1.576	.813	-.223	-1.940	.056	-.287	-.223	-.212	.901	1.110
	retailer_dmy	1.012	1.320	.085	.767	.446	.083	.090	.084	.971	1.030
	Collaboration_Dummy=YES	1.646	.920	.193	1.789	.078	.221	.217	.184	.916	1.092
	Initiator=E	.253	.908	.038	.279	.781	-.030	.035	.029	.559	1.788
	Initiator=S	.450	.548	.120	.821	.415	.102	.101	.085	.497	2.012
	Initiator=B	.670	.651	.150	1.030	.307	.086	.127	.106	.500	2.001
	Manuf_dmy	.574	1.071	.081	.536	.594	-.287	.066	.055	.463	2.161
	retailer_dmy	3.133	1.449	.263	2.162	.034	.083	.259	.223	.719	1.392
	Products_Services_RFP=Cleaning_and_Waste_Svs	-.851	1.294	-.120	-.657	.513	-.159	-.081	-.068	.317	3.156
	Products_Services_RFP=Consulting_and_Prof_Svs	.593	1.988	.035	.298	.766	.058	.037	.031	.754	1.327
	Products_Services_RFP=Facilities	-.194	1.138	-.037	-.170	.865	-.027	-.021	-.018	.223	4.477
	Products_Services_RFP=Financial Svs	-2.095	1.273	-.415	-1.645	.105	-.355	-.200	-.170	.167	5.982
	Products_Services_RFP=Food_Bev_Prod_Svs	.314	1.055	.083	.298	.767	.186	.037	.031	.136	7.379
	Products_Services_RFP=Food_Events_Facilities_Omit	1.814	2.011	.108	.902	.370	.119	.111	.093	.737	1.357
	Products_Services_RFP=Technology	1.320	1.196	.213	1.103	.274	.217	.136	.114	.286	3.495

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

Table 124: Hierarchical Regression ─ Likelihood to be a Reference, Model Summary

Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.369[a]	.136	.126	1.885	.136	13.199	1	84	.000
2	.388[b]	.150	.108	1.903	.014	.457	3	81	.713
3	.487[c]	.238	.180	1.825	.087	4.531	2	79	.014
4	.606[d]	.367	.253	1.742	.129	2.103	7	72	.054

a. Predictors: (Constant), Collaboration_Dummy=YES

b. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S

c. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy

d. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Technology, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

e. Dependent Variable: Likelihood to be a Reference

Table 125: Hierarchical Regression ─ Likelihood to be a Reference, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.884	1	46.884	13.199	.000[b]
	Residual	298.372	84	3.552		
	Total	345.256	85			
2	Regression	51.850	4	12.962	3.579	.010[c]
	Residual	293.406	81	3.622		
	Total	345.256	85			
3	Regression	82.040	6	13.673	4.104	.001[d]
	Residual	263.216	79	3.332		
	Total	345.256	85			
4	Regression	126.727	13	9.748	3.212	.001[e]
	Residual	218.528	72	3.035		
	Total	345.256	85			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Collaboration_Dummy=YES

c. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S

d. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy

e. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Technology, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 126: Hierarchical Regression ─ Likelihood to be a Reference, Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.750	.942		5.041	.000					
	Collaboration_Dummy=YES	3.506	.965	.369	3.633	.000	.369	.369	.369	1.000	1.000
2	(Constant)	4.362	1.031		4.232	.000					
	Collaboration_Dummy=YES	3.451	.986	.363	3.502	.001	.369	.363	.359	.978	1.023
	Initiator=E	.394	.846	.054	.466	.643	-.056	.052	.048	.787	1.271
	Initiator=S	.598	.531	.149	1.126	.263	.108	.124	.115	.600	1.665
	Initiator=B	.559	.610	.118	.917	.362	.029	.101	.094	.635	1.575
3	(Constant)	5.049	1.030		4.900	.000					
	Collaboration_Dummy=YES	2.981	.960	.313	3.107	.003	.369	.330	.305	.948	1.054
	Initiator=E	.110	.827	.015	.132	.895	-.056	.015	.013	.757	1.321
	Initiator=S	.484	.515	.120	.940	.350	.108	.105	.092	.588	1.701
	Initiator=B	.318	.603	.067	.528	.599	.029	.059	.052	.596	1.677
	Manuf_dmy	-2.109	.807	-.268	-2.614	.011	-.332	-.282	-.257	.917	1.090
	retailer_dmy	1.727	1.320	.130	1.308	.195	.147	.146	.129	.979	1.022
4	(Constant)	5.983	1.465		4.084	.000					
	Collaboration_Dummy=YES	2.957	.934	.311	3.168	.002	.369	.350	.297	.913	1.095
	Initiator=E	.041	.896	.006	.046	.964	-.056	.005	.004	.588	1.701
	Initiator=S	.128	.507	.032	.251	.802	.108	.030	.024	.551	1.813
	Initiator=B	.026	.598	.005	.043	.966	.029	.005	.004	.553	1.810
	Manuf_dmy	-.858	.926	-.109	-.927	.357	-.332	-.109	-.087	.635	1.576
	retailer_dmy	2.982	1.357	.224	2.197	.031	.147	.251	.206	.844	1.185
	Products_Services_RFP=Cleaning_and_Waste_Svs	-1.348	1.313	-.171	-1.027	.308	-.127	-.120	-.096	.315	3.170
	Products_Services_RFP=Consulting_and_Prof_Svs	1.034	2.019	.055	.512	.610	.103	.060	.048	.754	1.327
	Products_Services_RFP=Facilities	-1.313	1.139	-.235	-1.153	.253	-.084	-.135	-.108	.212	4.716
	Products_Services_RFP=Financial Svs	-1.986	1.170	-.403	-1.698	.094	-.309	-.196	-.159	.156	6.415
	Products_Services_RFP=Food_Bev_Prod_Svs	-.048	1.069	-.012	-.045	.964	.337	-.005	-.004	.127	7.874
	Products_Services_RFP=Food_Events_Facilities_Omit	.932	2.039	.050	.457	.649	.103	.054	.043	.738	1.355
	Products_Services_RFP=Technology	-.885	1.213	-.128	-.730	.468	-.055	-.086	-.068	.284	3.517

a. Dependent Variable: Likelihood to be a Reference

Table 127: Hierarchical Regression ─ Effectiveness of Sales Collaboration, Model Summary

Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.313[a]	.098	.087	1.70799	.098	9.232	1	85	.003
2	.353[b]	.125	.082	1.71301	.027	.834	3	82	.479
3	.452[c]	.204	.145	1.65334	.080	4.013	2	80	.022
4	.595[d]	.354	.239	1.55953	.150	2.416	7	73	.028

a. Predictors: (Constant), Collaboration_Dummy=YES

b. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S

c. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy

d. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Technology, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

e. Dependent Variable: Effectiveness_Sales_Collaboration

Table 128: Hierarchical Regression ─ Effectiveness of Sales Collaboration, ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.933	1	26.933	9.232	.003[b]
	Residual	247.964	85	2.917		
	Total	274.897	86			
2	Regression	34.275	4	8.569	2.920	.026[c]
	Residual	240.621	82	2.934		
	Total	274.897	86			
3	Regression	56.214	6	9.369	3.427	.005[d]
	Residual	218.683	80	2.734		
	Total	274.897	86			
4	Regression	97.352	13	7.489	3.079	.001[e]
	Residual	177.545	73	2.432		
	Total	274.897	86			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Collaboration_Dummy=YES

c. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S

d. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy

e. Predictors: (Constant), Collaboration_Dummy=YES, Initiator=B, Initiator=E, Initiator=S, retailer_dmy, Manuf_dmy, Products_Services_RFP=Food_Events_Facilities_Omit, Products_Services_RFP=Consulting_and_Prof_Svs, Products_Services_RFP=Facilities, Products_Services_RFP=Technology, Products_Services_RFP=Cleaning_and_Waste_Svs, Products_Services_RFP=Financial Svs, Products_Services_RFP=Food_Bev_Prod_Svs

Table 129: Hierarchical Regression ─ Effectiveness of Sales Collaboration, Coefficients

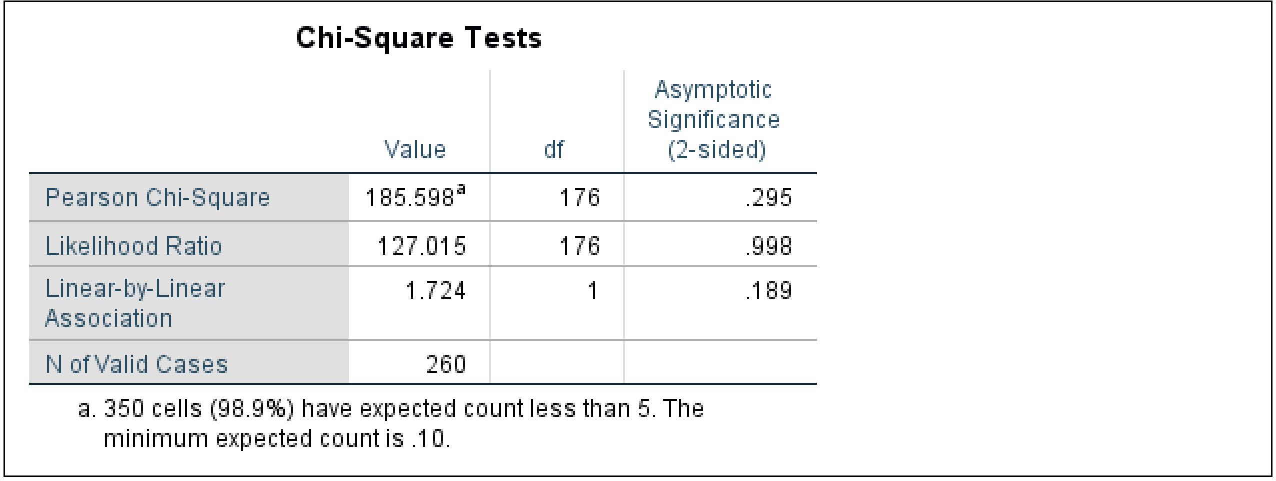
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.500	.854		6.440	.000					
	Collaboration_Dummy=YES	2.657	.874	.313	3.038	.003	.313	.313	.313	1.000	1.000
2	(Constant)	5.006	.928		5.397	.000					
	Collaboration_Dummy=YES	2.605	.887	.307	2.937	.004	.313	.308	.303	.977	1.023
	Initiator=E	.547	.762	.084	.718	.475	-.041	.079	.074	.786	1.272
	Initiator=S	.709	.476	.199	1.489	.140	.118	.162	.154	.597	1.674
	Initiator=B	.719	.549	.170	1.311	.194	.051	.143	.135	.633	1.581
3	(Constant)	5.604	.933		6.004	.000					
	Collaboration_Dummy=YES	2.200	.869	.259	2.531	.013	.313	.272	.252	.948	1.055
	Initiator=E	.296	.749	.045	.395	.694	-.041	.044	.039	.756	1.323
	Initiator=S	.605	.465	.170	1.302	.197	.118	.144	.130	.584	1.712
	Initiator=B	.506	.547	.120	.926	.357	.051	.103	.092	.594	1.683
	Manuf_dmy	-1.823	.730	-.260	-2.496	.015	-.324	-.269	-.249	.917	1.090
	retailer_dmy	1.393	1.196	.117	1.165	.247	.126	.129	.116	.979	1.022
4	(Constant)	6.109	1.311		4.658	.000					
	Collaboration_Dummy=YES	2.300	.836	.271	2.752	.007	.313	.307	.259	.913	1.096
	Initiator=E	.099	.802	.015	.123	.902	-.041	.014	.012	.588	1.701
	Initiator=S	.274	.452	.077	.607	.546	.118	.071	.057	.550	1.817
	Initiator=B	.250	.535	.059	.468	.641	.051	.055	.044	.551	1.816
	Manuf_dmy	-.480	.829	-.068	-.579	.564	-.324	-.068	-.054	.634	1.577
	retailer_dmy	2.720	1.215	.229	2.239	.028	.126	.254	.211	.843	1.186
	Products_Services_RFP=Cleaning_and_Waste_Svs	-1.124	1.175	-.160	-.957	.342	-.146	-.111	-.090	.315	3.173
	Products_Services_RFP=Consulting_and_Prof_Svs	.841	1.807	.050	.466	.643	.089	.054	.044	.754	1.327
	Products_Services_RFP=Facilities	-.885	1.013	-.183	-.873	.385	-.079	-.102	-.082	.202	4.960
	Products_Services_RFP=Financial Svs	-1.766	1.047	-.402	-1.686	.096	-.353	-.194	-.159	.155	6.435
	Products_Services_RFP=Food_Bev_Prod_Svs	.123	.957	.034	.128	.898	.305	.015	.012	.126	7.939
	Products_Services_RFP=Food_Events_Facilities_Omit	1.317	1.825	.079	.722	.473	.119	.084	.068	.738	1.354
	Products_Services_RFP=Technology	.189	1.086	.031	.174	.862	.083	.020	.016	.284	3.521

a. Dependent Variable: Effectiveness_Sales_Collaboration

APPENDIX 6 – Contract Value vs. Strategic Alignment

Table 130: Contract Value vs. Strategic Alignment, Chi-Square

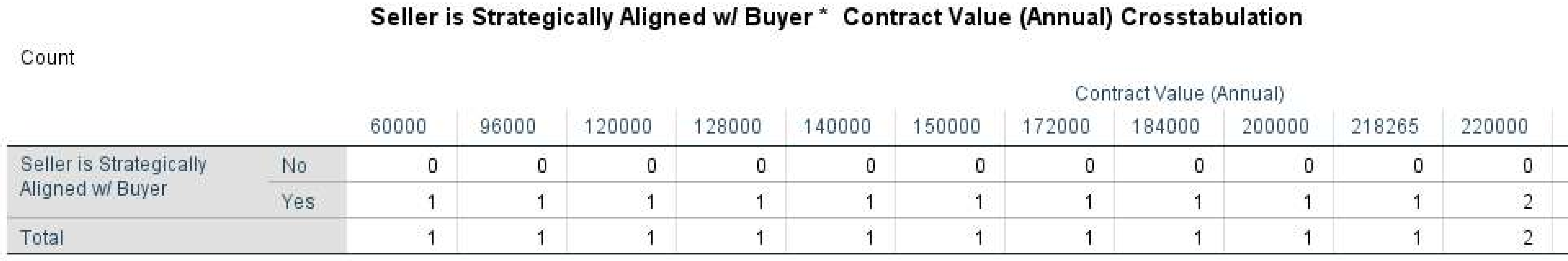


Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	185.598[a]	176	.295
Likelihood Ratio	127.015	176	.998
Linear-by-Linear Association	1.724	1	.189
N of Valid Cases	260		

a. 350 cells (98.9%) have expected count less than 5. The minimum expected count is .10.

Table 131: Contract Value vs. Strategic Alignment, Crosstab



Seller is Strategically Aligned w/ Buyer * Contract Value (Annual) Crosstabulation

Count

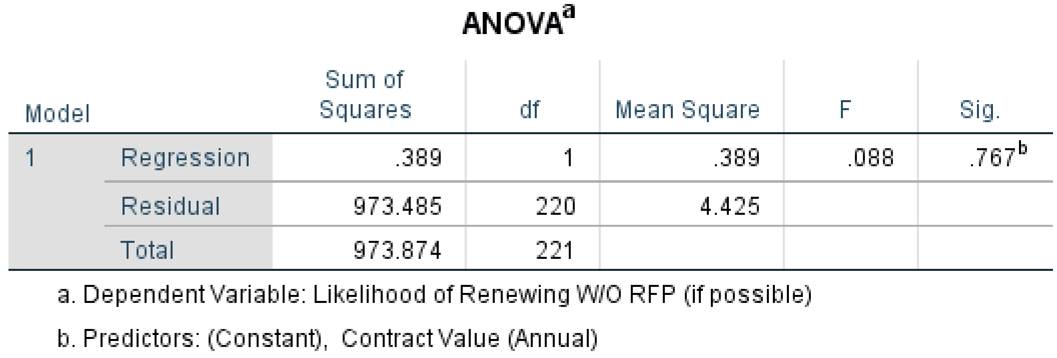
		Contract Value (Annual)										
		60000	96000	120000	128000	140000	150000	172000	184000	200000	218265	220000
Seller is Strategically Aligned w/ Buyer	No	0	0	0	0	0	0	0	0	0	0	0
	Yes	1	1	1	1	1	1	1	1	1	1	2
Total		1	1	1	1	1	1	1	1	1	1	2

Table 132: Contract Value vs. Strategic Alignment, Case Summary

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Seller is Strategically Aligned w/ Buyer * Contract Value (Annual)	260	60.3%	171	39.7%	431	100.0%

Table 133: Contract Value vs. Likelihood to Renew



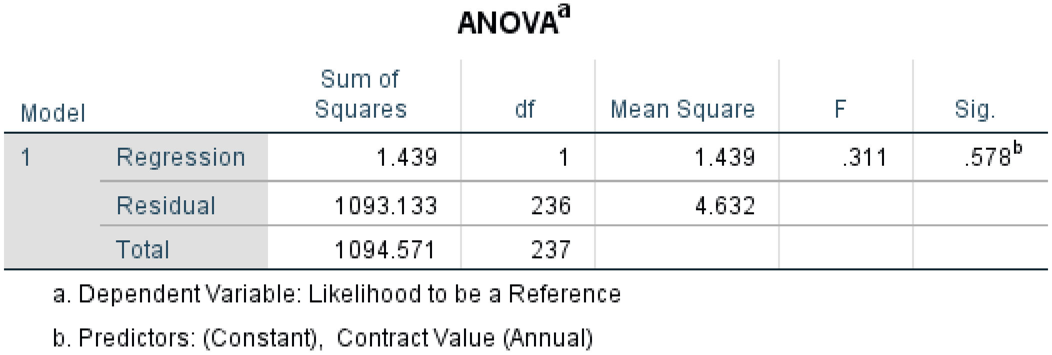
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.389	1	.389	.088	.767[b]
	Residual	973.485	220	4.425		
	Total	973.874	221			

a. Dependent Variable: Likelihood of Renewing W/O RFP (if possible)

b. Predictors: (Constant), Contract Value (Annual)

Table 134: Contract Value vs. Likelihood to Refer



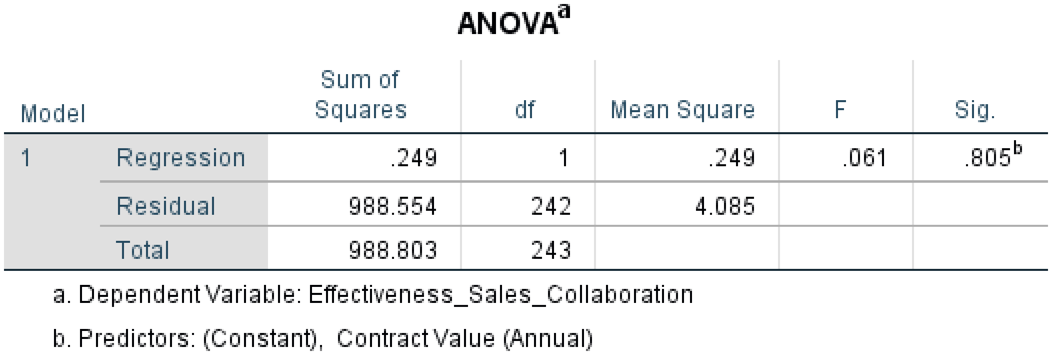
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.439	1	1.439	.311	.578^b
	Residual	1093.133	236	4.632		
	Total	1094.571	237			

a. Dependent Variable: Likelihood to be a Reference

b. Predictors: (Constant), Contract Value (Annual)

Table 135: Contract Value vs. Effectiveness of Sales Collaboration



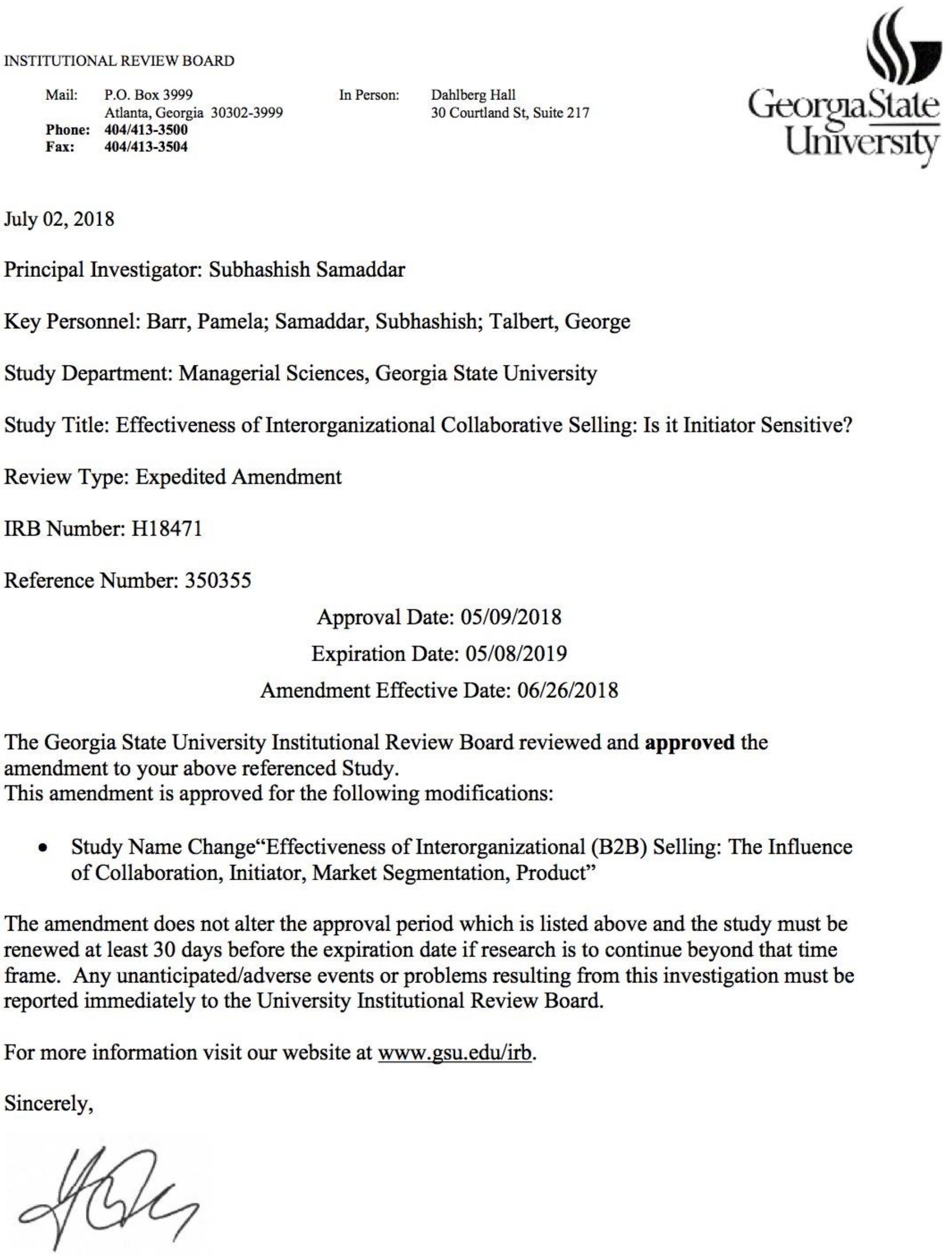
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.249	1	.249	.061	.805^b
	Residual	988.554	242	4.085		
	Total	988.803	243			

a. Dependent Variable: Effectiveness_Sales_Collaboration

b. Predictors: (Constant), Contract Value (Annual)

APPENDIX 7: IRB



INSTITUTIONAL REVIEW BOARD

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Phone: **404/413-3500**
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In Person: Dahlberg Hall
30 Courtland St, Suite 217

Georgia State University

July 02, 2018

Principal Investigator: Subhashish Samaddar

Key Personnel: Barr, Pamela; Samaddar, Subhashish; Talbert, George

Study Department: Managerial Sciences, Georgia State University

Study Title: Effectiveness of Interorganizational Collaborative Selling: Is it Initiator Sensitive?

Review Type: Expedited Amendment

IRB Number: H18471

Reference Number: 350355

Approval Date: 05/09/2018
Expiration Date: 05/08/2019
Amendment Effective Date: 06/26/2018

The Georgia State University Institutional Review Board reviewed and **approved** the amendment to your above referenced Study.
This amendment is approved for the following modifications:

- Study Name Change“Effectiveness of Interorganizational (B2B) Selling: The Influence of Collaboration, Initiator, Market Segmentation, Product”

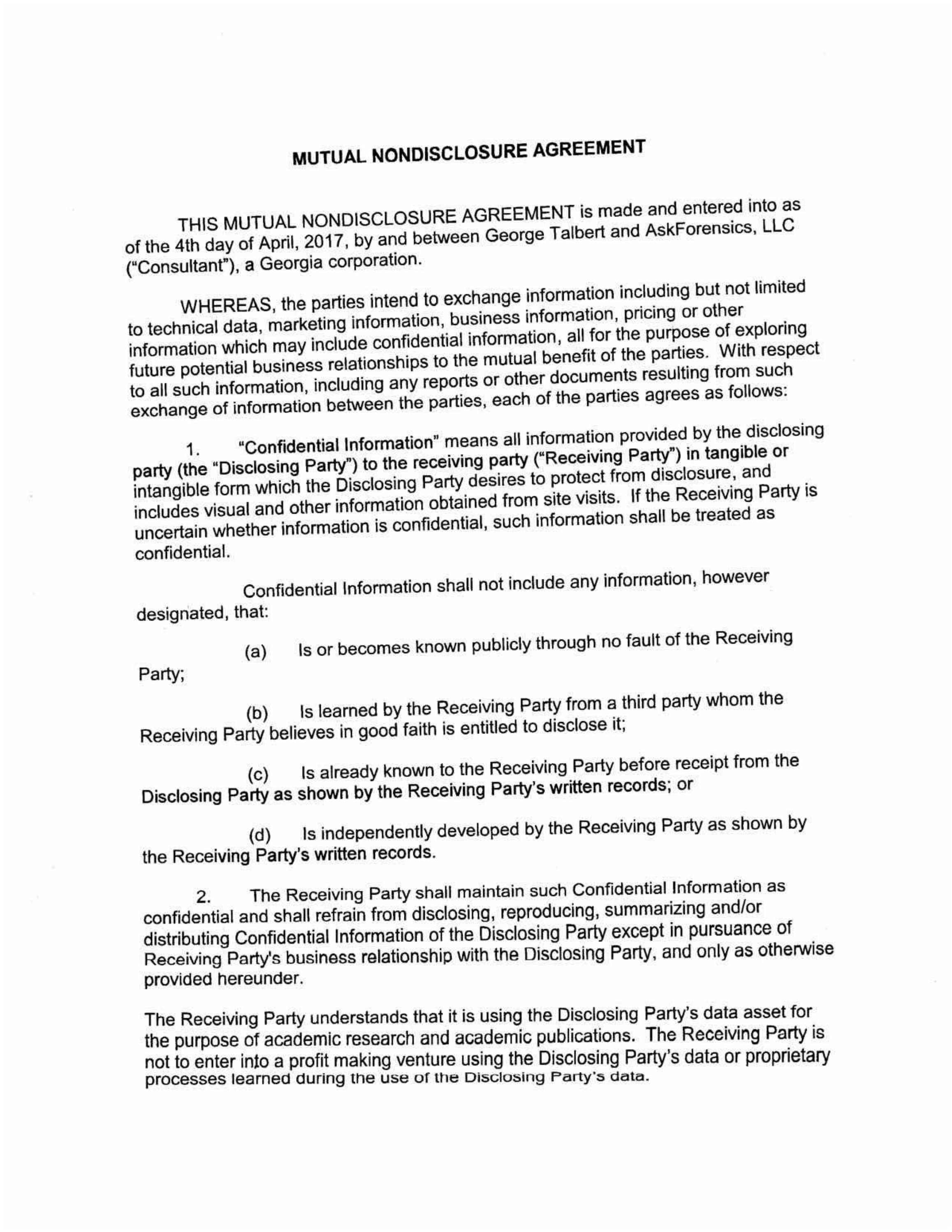
The amendment does not alter the approval period which is listed above and the study must be renewed at least 30 days before the expiration date if research is to continue beyond that time frame. Any unanticipated/adverse events or problems resulting from this investigation must be reported immediately to the University Institutional Review Board.

For more information visit our website at www.gsu.edu/irb.

Sincerely,

Yan Ki Wai, IRB Member

Federal Wide Assurance Number: 00000129



MUTUAL NONDISCLOSURE AGREEMENT

THIS MUTUAL NONDISCLOSURE AGREEMENT is made and entered into as of the 4th day of April, 2017, by and between George Talbert and AskForensics, LLC ("Consultant"), a Georgia corporation.

WHEREAS, the parties intend to exchange information including but not limited to technical data, marketing information, business information, pricing or other information which may include confidential information, all for the purpose of exploring future potential business relationships to the mutual benefit of the parties. With respect to all such information, including any reports or other documents resulting from such exchange of information between the parties, each of the parties agrees as follows:

1. "Confidential Information" means all information provided by the disclosing party (the "Disclosing Party") to the receiving party ("Receiving Party") in tangible or intangible form which the Disclosing Party desires to protect from disclosure, and includes visual and other information obtained from site visits. If the Receiving Party is uncertain whether information is confidential, such information shall be treated as confidential.

Confidential Information shall not include any information, however designated, that:

(a) Is or becomes known publicly through no fault of the Receiving Party;

(b) Is learned by the Receiving Party from a third party whom the Receiving Party believes in good faith is entitled to disclose it;

(c) Is already known to the Receiving Party before receipt from the Disclosing Party as shown by the Receiving Party's written records; or

(d) Is independently developed by the Receiving Party as shown by the Receiving Party's written records.

2. The Receiving Party shall maintain such Confidential Information as confidential and shall refrain from disclosing, reproducing, summarizing and/or distributing Confidential Information of the Disclosing Party except in pursuance of Receiving Party's business relationship with the Disclosing Party, and only as otherwise provided hereunder.

The Receiving Party understands that it is using the Disclosing Party's data asset for the purpose of academic research and academic publications. The Receiving Party is not to enter into a profit making venture using the Disclosing Party's data or proprietary processes learned during the use of the Disclosing Party's data.

Further, the Receiving Party will not publish any papers or articles using the Disclosing Party's data that could in any way breach the Disclosing Party's confidentiality with its clients or its clients' clients. The Disclosing Party has the right to review articles and papers submitted for publication, prior to them being published, to determine if the Disclosing Party's client confidentialities are in any way compromised. If the Disclosing Party finds references in the Receiving Party's papers and articles that compromise the Disclosing Party's confidentialities, the Receiving Party agrees to make the necessary changes to ensure all Disclosing Party's client confidentialities are fully maintained.

3. The Receiving Party may disclose Confidential Information which:

(a) Must be disclosed under operation of law, provided that Receiving Party either (i) gives the undersigned Disclosing Party reasonable notice prior to such disclosure to allow the Disclosing Party a reasonable opportunity to seek a protective order or equivalent, or (ii) obtains written assurance from the applicable judicial or governmental entity that it will afford the Confidential Information the highest level of protection afforded under applicable law or regulation; or

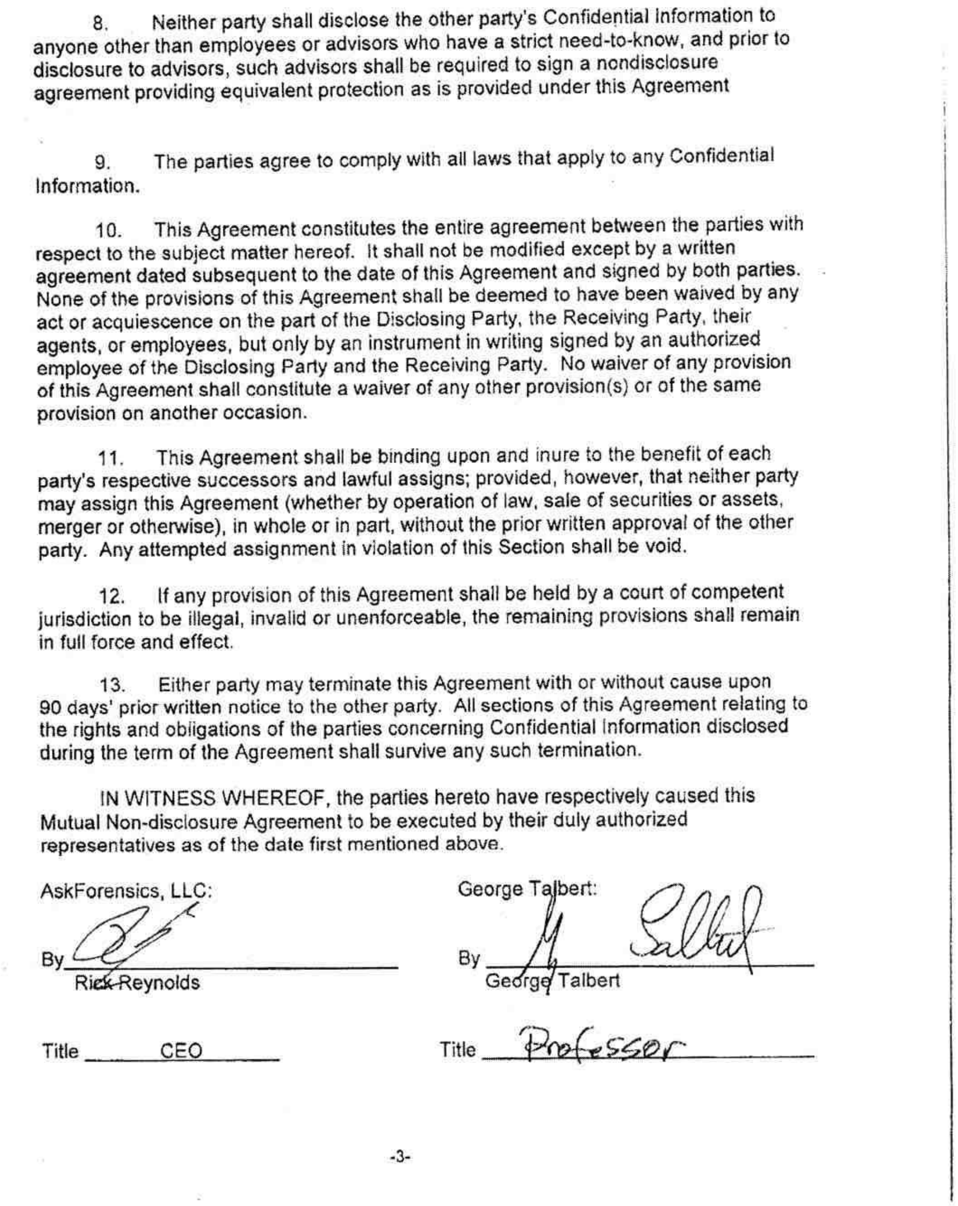
(b) Is approved for release by written authorization of the Disclosing Party.

4. The Receiving Party shall not, without prior written permission of the Disclosing Party, furnish to any third party any information, equipment or material embodying or made by use of any Confidential Information received or developed hereunder nor use such information for purposes other than internal evaluation so long as such Confidential Information must be maintained confidential. All Confidential Information in tangible form, and any copies thereof, disclosed hereunder, shall be promptly returned or destroyed upon written request of the Disclosing Party.

5. The Receiving Party shall protect the disclosed Confidential Information by using the same degree of care as it uses to protect its own Confidential Information, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination or publication of the Confidential Information.

6. In the event of any breach or threatened breach by the Receiving Party of its obligations hereunder, the Disclosing Party shall have whatever rights and remedies are available to it at law or in equity, provided, however, that in no event shall either party be liable for any consequential damages of any nature whatsoever.

7. All Confidential Information is and shall remain the property of the Disclosing Party. This Agreement shall not be construed as granting or conferring any rights to license, either express, implied, or otherwise, for any invention, discovery or improvement made, conceived or acquired prior to or after the date of this Agreement.



8. Neither party shall disclose the other party's Confidential Information to anyone other than employees or advisors who have a strict need-to-know, and prior to disclosure to advisors, such advisors shall be required to sign a nondisclosure agreement providing equivalent protection as is provided under this Agreement

9. The parties agree to comply with all laws that apply to any Confidential Information.

10. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof. It shall not be modified except by a written agreement dated subsequent to the date of this Agreement and signed by both parties. None of the provisions of this Agreement shall be deemed to have been waived by any act or acquiescence on the part of the Disclosing Party, the Receiving Party, their agents, or employees, but only by an instrument in writing signed by an authorized employee of the Disclosing Party and the Receiving Party. No waiver of any provision of this Agreement shall constitute a waiver of any other provision(s) or of the same provision on another occasion.

11. This Agreement shall be binding upon and inure to the benefit of each party's respective successors and lawful assigns; provided, however, that neither party may assign this Agreement (whether by operation of law, sale of securities or assets, merger or otherwise), in whole or in part, without the prior written approval of the other party. Any attempted assignment in violation of this Section shall be void.

12. If any provision of this Agreement shall be held by a court of competent jurisdiction to be illegal, invalid or unenforceable, the remaining provisions shall remain in full force and effect.

13. Either party may terminate this Agreement with or without cause upon 90 days' prior written notice to the other party. All sections of this Agreement relating to the rights and obligations of the parties concerning Confidential Information disclosed during the term of the Agreement shall survive any such termination.

IN WITNESS WHEREOF, the parties hereto have respectively caused this Mutual Non-disclosure Agreement to be executed by their duly authorized representatives as of the date first mentioned above.

AskForensics, LLC:	George Talbert:
By ______________________	By ______________________
Rick Reynolds	George Talbert
Title CEO	Title Professor

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VITA

EDUCATION

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ACADEMIC POSITION

Instructor Sales and Marketing BALL STATE UNIVERSITY Ball State Sales Center 2017-present

Instructor Sales and Marketing BALL STATE UNIVERSITY HHGREGG Sales Center 2016-2017

Instructor Marketing BALL STATE UNIVERSITY Marketing Department 2015-2016

AWARDS & HONORS

Faculty Appreciation Award for Teaching, PanHellenic Council for Greek Life-2017

Outstanding Teaching Award, Sigma Phi Epsilon Indiana Gamma Chapter-2016

Purdue Honors Graduate 2014

SmithKline Beecham Simply The Best Award For Honoring World-wide Teams 2001

ACADEMIC SERVICE ACTIVITIES

Diversity Research Symposium Committee

Toledo Sales Competition Coach

Social Media Competition Planning Committee
Assurance of Learning-Sub Committee
ASCSB Salary Committee

RESEARCH INTERESTS

- Industrial Sales
- Personal Selling
- Bottom of Pyramid Marketing
- Sales Management
- Buyer Seller
- Sales Force Recruiting
- Persuasion
- Ingratiation
- Sales Force Diversity

INTERNATIONAL STUDY

CENTRAL EUROPEAN UNIVERSITY (CEU) – Budapest
TIAS FOR BUSINESS AND SOCIETY – Netherlands
EMLYON BUSINESS SCHOOL – France
FUNDACAO GETULIO VARGAS (FGV) – Brazil
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TEACHING EXPERIENCE

BALL STATE UNIVERSITY

MKG 300: Principals of Marketing	2015-Present
MKG325: Professional Selling	2016-Present

INDUSTRY EXPERIENCE

Business Consultant 2012-Present

Leica Microsystems Danaher 2010-2012
  - **Regional Sales Manager/Business Development**

AutoGenomics 2008-2009
  - **Business Development Manager**-Molecular Diagnostics

- Thermo Fisher Healthcare 2006-2008
  - **Business Development Manager**-Molecular Diagnostics

Pfizer, Incorporated 2002-2005
  - **Area Sales Manager**-Animal Health Division

GlaxoSmithKline (GSK) 1993-2002
  - **District Sales Manager**
  - **Senior Business Analyst**
  - **Business Analyst**
  - **Senior Oncology Account Manager**
  - **Oncology Account Manager**
  - **Executive Pharmaceutical Consultant**
  - **Associate Product Manager-Vaccines**
  - **Sales Trainer**
  - **Project Manager**
  - **Assistant Product Manager-Consumer Health Division**
  - **Managed Care Specialist**
  - **Packaging Supervisor-Manufacturing-Anti-Invectives**

PUBLICATIONS

- **Dissertation –** “Effectiveness of Interorganizational (B2B) Selling: The Influence of Collaboration, Initiator, Market Segmentation, Product”
- “The Evolution of the Sales Process: Relationship Selling versus the Challenger Sale” Journal of Global Scholars of Marketing Science
- “Sales Force Automation: CRM, Dashboards, and Empowering Mobile Technology Used by Millennial Salespeople” Atlanta Marketing Association Journal

WORK-IN PROGRESS

“Can Ingratiation Be Perceived Positively by a Buyer Who Anticipates a Salesperson’s Use of Ingratiatory Behavior?”

“Why Does SPIN Selling Work in the Industrial Sale? An Exploratory Study Peeks Behind the Curtain from a Buyer’s Perspective”

“How Does the Hierarchical Position of the Buyer in Large Firms Affect the Buyer’s Ratings of the Salesperson, the Sales Team and the Supplier?”

“Teaching Marketing in an Ambidextrous Environment”

AFFILIATIONS/MEMBERSHIPS

National Sales Network-Indianapolis Chapter Founding President	2013-2017
National Black MBA Association-Member	
National Society of Hispanic MBA’s-Member	
100 Black Men Association-Student Mentoring & Community Engagement	
National Association of Asian MBA’s-Member	
American Management Association-Member	
American Marketing Association-Member	
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CERTIFICATIONS

Project Management
Leadership
Sales Management
Training